

**COLLEGE OF NATURAL THERAPIES (S.A.)  
Elizabeth, South Australia.**

**CONSTITUTIONAL CHEMISTRY.**

c.1995. The following material has been compiled and edited by: Paul Hysen D.Litt.,N.D.,D.O.,D.C.,Ph.D. from notes and information from the lectures of Victor G. Rocine D.Sc., and is issued by: The College of Natural Therapies (S.A.) for the sole purpose of tuition within this College. This material may not be copied, stored in a retrieval system or used for any other purpose without the express written permission of the publisher.

## 6. ROCINE'S CONSTITUTIONAL CHEMISTRY.

We have reached considerable sophistication in all aspects of science and technology, so much so, that in most cases we have become totally alienated from our natural heritage and somehow consider ourselves not to be the subjects of Natural Law, but its conquerors.

If, however, we look at the food we eat, and more importantly at the base substances our society needs for most of the modern structural and chemical products we take for granted, then we come to the conclusion that our civilisation is just as firmly based on natural foundations, as were the societies of hunter and food gatherer peoples; indeed there are very few products, from 'synthetics', to structural materials and medicines, where we will not find in the chain of chemical synthesis some essential plant or other organic extract, without which such manufacture would be impossible.

To understand the laws of nature, and to be able to apply them, it is often best to return to basics at some time in our journey. To know the deeper and complex workings of the biological processes within ourselves and in other living things is essential in our complex scientific and technological society; but in this knowledge of the complex, we can readily lose view of the whole: "we cannot see the wood for the trees". There have been, through the ages, those special people who have taken us to the "mountain top" of life, so that we may view its complexity at a glance, and we may understand the foundations of all life.

One of those people is Victor G. Rocine D.Sc., the Norwegian Homeopath, who focussed on the major constituent elements of the human body, which he considered must, by the very virtue of their quantitative importance, play a major role in human physiology. On this basis, he developed a simple, clear system that places these major essential elements in a context, which is both applied and scientific. Understanding his classifications of human chemical types and their related food chemicals, does not only provide an insight in the underpinnings of biochemistry, but also gives us an unparalleled insight in what may go wrong with human health, and what may be done to correct it.

Victor G. Rocine D.Sc. was a scientist who looked at human ecology as no other has done, one can therefore do little better than to cogitate these notes from his lectures in 1921 on the Constitutional Chemical Elements and their function. Although the notes presented below have been considerably updated and edited from the original notes taken, every effort has been made to retain both the quality and the style of his approach.

## 6.i. CARBON.

### i. CARBON IN THE MINERAL AND VEGETABLE KINGDOMS.

1. Carbon is the cradle (Basis or foundation), of creation; the primary element of growth.
2. It is an organic, non-metallic element.
3. It is found in the diamond, dolomite, limestone, anthracite to coal, charcoal, lamp-black, graphite, and other minerals.
4. Carbon is found in the hardest and softest elements known.
5. It is found in large proportions in the entire carbohydrate series; glucose, the disaccharides the trisaccharides, and the polysaccharides.
6. The carbon in the atmosphere exceeds in quantity the carbon in the earth, in vegetables, in animals and in human beings.

### ii. CARBON, ITS NATURE AND CHARACTERISTICS.

1. Carbon is a sleepy, negative element; but highly complex in its molecular construction.
2. It has neither colour, odour, nor taste.
3. Whenever carbon and oxygen are at work, heat is generated, growth takes place, and carbon dioxide is formed.

### iii. FUNCTIONS OF CARBON IN THE HUMAN ORGANISATION.

1. Carbon is the basis of the Lipopheric, Myogenic, and especially the Carboferic constitutions.
2. It is the principal organising element of the sugars.
3. It plays an important role in muscle metabolism, in glycogenesis, in cell organisation, and in protoplasmic evolution.
4. Muscle contains from 140 to 280 grains (9.1 - 18.2 grams) of sugar (glycogen).
5. The average person who weighs 160lbs. (72Kg.) has about 29lbs. (12.95Kg.) Carbon in his body.
6. When carbon is oxidised, stored, utilised, or formed into living material, carbon dioxide and carbon products are formed.
7. If carbon cannot be utilised in the body, disease follows.

### iv. CONSTITUTIONS IN WHICH CARBON IS INHERENTLY

1. **Excessive:** Carboferic, Hydripheric, Lipopheric, and Pargenic.
2. **Deficient:** Nervi-Motive, Neurogenic, Marasmic, Calciferic, Sillevitic, Atrophic, and Medeic.

### v. SYMPTOMS WHEN CARBON IS EXCESSIVE.

1. Fatigue, growth, low vital resistance, gas generation, acidity, bacterial growth, drowsiness, internal congestion, stupidity, confusion, fear, forgetfulness, fainting, nervousness, diseased imagination, loss of ambition and laziness.

### vi. HOW TO REDUCE CARBON IN THE BODY.

1. **Foods:** Eat foods rich in calcium, iron, potassium, silicon and sodium.
2. **Climate:** Live in dry, cold climate in mountainous district, where air is sharp and attenuated; high altitude, abundance of ozone, sandy or stony soil.
3. **Mental Exercise:** Intellectual, scientific, mathematical, volitive.

### vii. HOW TO INCREASE CARBON IN THE BODY.

1. **Foods:** Eat easily digested sugars, fats, and starches mixed with foods rich in potassium, iron and sodium.
2. **Climate:** Live in low altitude, dense air, high humidity, warm sunlight. Tropics best.
3. **Mental Exercise:** Joyful pursuits, attention to dress, freedom, abundant sleep, sexual fulfilment, a carefree life; sentimental, romantic, imaginative scenes.
4. **Physical Exercise:** Pleasurable, but not overly strenuous.

### viii. PEOPLE WHO REQUIRE CARBON FOODS

1. **In abundance:** All lean people; but such people cannot easily assimilate carbon substances.
2. **Very little:** All vital people; but they are always fond of carbonaceous food substances.

### ix. INFLUENCE OF AN EXCESSIVE AMOUNT OF CARBON FOODS ON

1. **Health:** Ruins the health and shortens life.
2. **Disposition:** Sours the disposition, tissues, and secretions by precipitating many of the organo-metallic salts; lowers oxidation, and sours the nerves.  
"My nerves are crazy and creepy," says the carbon patient.

### x. INFLUENCE OF A DEFICIENT AMOUNT OF CARBON FOODS ON

1. **Health:** Leads to hardening, sclerosis, calcifications.
2. **Disposition:** Pessimism, atheism, skepticism, criticism, cynicism.

### xi. DISEASE TENDENCIES OF PEOPLE IN WHOM CARBON IS IN EXCESS.

1. Paralysis, nervous diseases, cardiac ailments, obesity, goitre, feeble-mindedness, fear, auto-intoxication.

### xii. CHEMICALS IN FOOD THAT PEOPLE WITH EXCESS CARBON SHOULD

1. **Eat:** Foods rich in calcium, iron, potassium, silicon and sodium.
2. **Avoid:** Carbonaceous foods; especially all foods containing sugar.

### xiii. HELPFUL HINTS.

1. Carbonic acid depresses the mind, heart, circulation, thought, muscles and nerves.
2. Carbon-dioxide demands abundant air.
3. The Carbon man is a man of fear, timidity, and accidents.
4. He should develop courage, self-confidence, and action.

### xiv. PRINCIPAL CARBON FOODS.

1. Potatoes, rice, sugar, candy, honey, syrup, molasses, rye, corn, wheat, barley; also all gluten, white and wholemeal flour; as well as all bread preparations such as biscuits, cake, pastry, cookies, crackers, doughnuts, rolls, wafers, puffs, gems, pancakes and puddings.
2. Also all starchy-yeasty dishes, macaroni, sago, tapioca, arrowroot, beans, peas, lentils, apples, red chilli, figs, grapes, pears, chestnuts, lichi nuts, malted milk.

## 6.ii. HYDROGEN.

### i. HYDROGEN IN THE MINERAL AND VEGETABLE KINGDOMS.

1. It is abundant in nature occurring as a constituent of water, of which it forms 11.19% and of all organic compounds.
2. We cannot analyse any vegetable substance without discovering that it contains hydrogen and carbon.

### ii. HYDROGEN ITS NATURE AND CHARACTERISTICS.

1. It is a colourless, odourless, tasteless, gaseous element that liquefies under great pressure, and at a very low temperature.
2. It is the lightest substance known, being 14.5 times lighter than air, and as a liquid more than 11 times lighter than water; hence it is taken as a standard in comparing atom in weights and volume.
3. As a gas, hydrogen is used for inflating balloons; in a compressed state, for producing low temperature; and in the nascent state, for reducing chemical compounds.
4. Hydrogen enters into animal and vegetable tissue, also into minerals.
5. It is the water maker.
6. It does not unite readily with any other element, although its affinity for oxygen is rather pronounced.
7. In the form of organic compounds, it is well absorbed by plants, animals and human beings.
8. It is the waterer of life.
9. It possesses great inflammability, expansion, diffusion, and considerable power of penetration.
10. It is hydrogen that waters our plants, circulates our blood and carries our ships.
11. It is the nurse of life, and the vehicle of transportation.

### iii. FUNCTIONS OF HYDROGEN IN THE HUMAN ORGANISATION.

1. Hydrogen is the silent, passive worker in the scheme of creation.
2. It is the medium between psyche and matter.
3. Without hydrogen, creative energy in the body would cease.
4. There would be no elimination, no perspiration, no salivation, and no procreation.
5. There would be no music, no song of birds, no prattling of babies, no growth, no activity, no thinking, no circulation of blood, no digestion.
6. There would be no chick hatched, no baby born - only death and silence.
7. About 15lbs. (6.76Kg.) Hydrogen enters into the normal human body of which the total weight is 160lbs. (72Kg.).
8. Hydrogen is needed in every tissue and in every drop of blood.
9. Hydrogen promotes osmosis, soothes the nerves, regulates bodily temperature, moistens lung surfaces for gas diffusion, carries out impurities, cools tissues, and prevents inflammation.
10. Without moisture in the body, the nerves would harden, stiffen, decay, ache, burn and corrode.
11. Hydrogen favours osmotic pressure, cell filtration, smell, hearing, cell vibration, and the function of the taste buds.

### iv. CONSTITUTIONS IN WHICH HYDROGEN IS INHERENTLY.

1. **Excessive:** Carboferic, Hydripheric, Lipopheric, Nitropheric, Oxypheric, and Pallinomic.
2. **Deficiency:** Marasmic, Calciferic, Medeic.

#### **v. SYMPTOMS WHEN HYDROGEN IS EXCESSIVE.**

1. Sores heal slowly, skin is like putty, sores never disappear; tissues are too spongy: lower bowels are too large; water bags form under the skin; senses become alarmingly acute; bad odours stay almost permanently in the body; obesity, because salts are precipitated, resulting in diseases that medicines and operations cannot cure.

#### **vi. SYMPTOMS WHEN HYDROGEN IS DEFICIENT.**

1. Leanness, desiccation, inflammation, heat centralisation, pain, discomfort, sleeplessness, torpid glands, confusion, temper, rush, excessive nerve heat, shrinkage of brain cells.
2. The patient becomes lean, lank, old appearing, touchy, selfish, contrary, odd, cross, intolerant, dictatorial, self-wise, ugly and mean - all because nerve and brain substance is disturbed.

#### **vii. HOW TO REDUCE HYDROGEN IN THE BODY.**

1. **Foods:** Eat foods rich in calcium, silicon, and chlorine.  
Omit watery foods.
2. **Climate:** Live in dry climate.
3. **Mental exercise:** Relish dry foods.
4. **Physical Exercise:** Do hard work.

#### **viii. HOW TO INCREASE HYDROGEN IN THE BODY.**

1. **Foods:** Eat watery foods. Omit foods rich in calcium, silicon, and chlorine.
2. **Climate:** Live in a humid climate.
3. **Mental Exercise:** Relish liquids and liquid foods.
4. **Physical Exercise:** Engage in non-strenuous exercise.

#### **ix. PEOPLE WHO REQUIRE HYDROGEN FOODS.**

1. **In abundance:** Lean overheated, high-tempered, feverish people.
2. **Very little:** Vital people, especially Hydripheric people.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF HYDROGEN FOODS ON**

1. **Health:** Detrimental.
2. **Disposition:** Favourable.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF HYDROGEN FOODS ON**

1. **Health:** Unfavourable.
2. **Disposition:** Pessimistic, critical, irritable.

#### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM HYDROGEN IS IN EXCESS.**

1. Eczema, sudden collapse, infiltration, oedemic obesity, fevers, discharges, effusion, ulceration, pyorrhoea, ailments of the feet, anaesthesia, numbness, paralysis.

#### **xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS HYDROGEN SHOULD**

1. **Eat:** Foods rich in calcium, silicon, and chlorine.
2. **Avoid:** Foods rich in hydrogen.

**xiv. HELPFUL HINTS.**

1. Excess water results in protrusion of the eyeballs, lung oppression, lymphatism, high arterial tension, sudden diarrhoea, organic heart disease.
2. Urine often contains epithelial cells, indicating destructive changes in tissue.
3. The fibrin, albumin, leukocytes, and organo-metallic salts are often below normal, and specific gravity of the blood is too low.

**xv. PRINCIPAL HYDROGEN FOODS.**

1. Soups, tender meat, tongue, lamb, veal, tender loin, fowl, gizzard, liver, heart; tender juicy fish, frogs legs, eggs, buttermilk, kumis, milk, goat's milk, whey, meat juices, berries, greens, vegetables, oat water, distilled water, artichokes, asparagus, beans, beets, sprouts, carrots, cauliflower, celery, green corn, okra, Cucumbers, egg plant, parsnips, pumpkin, kohlrabi, rhubarb, rutabaga, sauerkraut, spinach, squash, tomatoes, muskmelon, nectarines, oranges, peaches, pineapple, plums, prunes, apples, apricots, watermelon, pears, persimmons, bananas, rice.
2. All the above foods contain more than 50% water.

## 6.iii. OXYGEN.

### i. OXYGEN IN THE MINERAL AND VEGETABLE KINGDOMS.

1. Oxygen is the most abundant and most important element in our environment yet discovered.
2. It is found everywhere - in animals, vegetables, water, air, in the crust of the earth, in tissue, fluid, and in blood.
3. The ocean itself is a vast storehouse of oxygen.
4. The weight of oxygen in the globe exceeds that of all other elements combined.
5. It forms by weight more than half of the animal, four-fifths of the vegetable and one half of the mineral world: also about one-fifth by volume of the atmosphere, and about eight-ninths of weight of water.

### ii. OXYGEN, ITS NATURE AND CHARACTERISTICS.

1. Oxygen is associative by nature, and readily unites with every element known except fluorine. It is uneasy, restless, active, constructive, destructive, unstable, explosive, impulsive, instantaneous and spontaneous.
2. It is never still; it knows of nothing but work, action, rush.
3. It is the Nature's chemist, destroyer, user and economist.
4. Its combination with other elements is called oxidation.
5. It is called "The Tooth of Time".
6. It has neither colour, odour, nor taste.
7. Oxygen has many functions and uses beside that of food organisation and its presence in food; as, for instance: Oxidation, decomposition, association, heat generation, utilisation, life action, invigoration, intensification, metabolism, atmospheric motion, elemental commotion, mental emotion, combustion, destruction, air purification, removal of organic matter, corrosion, disinfection (ozone), etc.
8. Oxygen is also the destructive agent of the air.
9. It is ever ready to attack, decompose, corrode, separate, organise, create, break-up, use, or combine.
10. It is nature's great Alchemist.

### iii. FUNCTIONS OF OXYGEN IN THE HUMAN ORGANISATION.

1. It is an organic impulse in the phenomena of human life.
2. It stimulates the muscular system, arouses the circulatory impulse, increases life processes, supports life, urges the blood to and fro, stimulates the creative impulse, invigorates the functions, builds tissue, increases power of transmission, oxidises blood and tissue, tones up the psyche, intensifies pleasure, increases oratory, warms the body, repairs fractures, and feeds every organ of the body.
3. The muscles consume about 59 cc. of oxygen, and give off about 57 cc. of carbon dioxide every 24 hours.
4. The brain uses 46 cc., the kidneys require 37 cc., the spleen absorbs 27 cc., the genitalia utilise 18 cc. and give off 10 cc., and the bones absorb and give off 8 cc., every 24 hours.
5. In an average man who weighs 160lbs. (72Kg.), 99lbs. (44.80Kg.) of oxygen is found.
6. Oxygen is called the most electro-negative of all the elements, which means that it is the element that has the greatest tendency towards producing chemical bonds with other elements.
7. It is not acid producing; but when it is lacking in the tissues, acidosis and disease follow.
8. It intensifies and exhilarates the mind, (The faculty of optimism).

### iv. CONSTITUTIONS IN WHICH OXYGEN IS INHERENTLY

1. **Excessive:** Oxypheric, and sometimes Myogenic.
2. **Deficient:** Atrophic, Neurogenic, Desmogenic, Marasmic, Carboferic, and Nitropheric.



#### **v. SYMPTOMS WHEN OXYGEN IS EXCESSIVE.**

1. Heated disposition, impulsive temperament, stormy moods, changeable emotions, excessive appetite, impulsiveness, familiarity, fickle feelings, great confidence, excesses, speculative business, despondency, mental intoxication, excessive heat generation with great perspiration, hilarity, alkaline rheumatism hyperaemia, albuminuria, plethora, drinking, adhesions, haemorrhages, convulsions, skin disease, insanity, congestion, "psora", overheated blood.

#### **vi. SYMPTOMS WHEN OXYGEN IS DEFICIENT.**

1. Pale face, blue veins, nutritive ailments, disease, sterility, lack of manhood, autointoxication, consumption, acidosis, dyspnoea, paralysis, pain, aches, operations, low tissue oxidation, dropsy, anaemia.

#### **vii. HOW TO REDUCE OXYGEN IN THE BODY.**

1. **Foods:** Eat foods containing nitrogen and fluorine.  
Omit foods containing oxygen, iodine, iron and potassium.
2. **Climate:** Live in a low altitude where the air is dense.
3. **Mental Exercise:** Study science, philosophy, mathematics.
4. **Physical Exercise:** Do heavy physical work.

#### **viii. HOW TO INCREASE OXYGEN IN THE BODY.**

1. **Foods:** Eat foods containing oxygen, iodine, iron, and potassium.  
Omit foods containing nitrogen and fluorine.
2. **Climate:** Live in a high altitude where the air is rarefied.
3. **Mental Exercise:** Delight in the joys of affection.
4. **Physical Exercise:** Indulge in pleasurable physical activity.

#### **ix. PEOPLE WHO REQUIRE OXYGEN FOODS**

1. **In abundance:** Lean, and phlegmatic people, also carbon people.
2. **Very little:** People of a sanguine temperament.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF OXYGEN FOODS ON**

1. **Health:** Stimulates the functions; increases alkalinity.
2. **Disposition:** Excessively sanguine; develops mental intoxication.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF OXYGEN FOODS ON**

1. **Health:** Lowers the health, and reduces the vigour of life.
2. **Disposition:** Pessimistic.

#### **xii. DISEASE TENDENCIES OF PEOPLE WHO CARRY OXYGEN IN EXCESS.**

1. Plethora, psora, adhesions, kidney disease, insanity, hyperaemia.

#### **xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS OXYGEN SHOULD**

1. **Eat:** Nitrogen, fluorine.
2. **Avoid:** Oxygen, ferrum, potassium.

**xiv. HELPFUL HINTS.**

1. Oxygen food stirs up everything, and throws every miasm to the surface - the temper, passion, appetite - in the same way as sulphur food does.
2. In high altitudes, a man is more erratic, and high tempered.
3. In cold and high altitudes, life is less prolific and exuberant.

**xv. PRINCIPAL OXYGEN FOODS.**

1. Sweet, starchy, alcoholic, fibrin's, all foods containing vitamins; also vegetables high in oxalic acid and oxalate of lime - such as sorrel, rhubarb, tomatoes, radishes, onions, spices, horseradish, etc.

## 6.iv. NITROGEN.

### i. NITROGEN IN THE MINERAL AND VEGETABLE KINGDOMS.

1. Nitrogen is found in the air (forming four-fifths of its volume), and in the vegetable kingdom, as a common constituent of plant tissue, and in the mineral kingdom, also in animal tissue.

### ii. NITROGEN, ITS NATURE AND CHARACTERISTICS.

1. Nitrogen does not support combustion; it prevents oxygen from burning everything (excepting fluorine, which is the one element oxygen cannot destroy).
2. It (nitrogen) acts as a necessary diluent of the oxygen in the air.
3. It is a tasteless, odourless and colourless gaseous element.
4. Under great pressure it forms a colourless liquid which, when evaporated in a vacuum, produces colourless crystals of nitrogen.
5. It is one of the essential fertilisers, and when guano, nitrate of soda, and nitrate of potash, (the great sources of nitrogen) are exhausted, atmospheric nitrogen will be the only remaining supply.
6. Only two ways are known of converting nitrogen into plant food:
  - i. by electricity, and
  - ii. through bacteria.
7. Nitrogen is very strong, very independent, non-associative, acts as a cooler, a regulator of heat, and a preserver.
8. It is negative in nature.
9. It has power to absorb the dark pigments from plant food.
10. It is directly opposite to oxygen in its nature.
11. It demonstrates a distant chemical affinity.

### iii. FUNCTIONS OF NITROGEN IN THE HUMAN ORGANISATION.

1. It acts as a vitaliser, and tissue builder.
2. It enters strongly into the proteins.
3. Nearly 3% of our tissues is composed of nitrogen; and this we obtain from vegetables and meat.
4. We retain nitrogen very loosely.
5. The tendency to decomposition is in proportion to the instability of nitrogen.
6. So soon as nitrogen leaves the body the tissues decompose; and nitrogen is the first of all elements to leave.
7. In an average man who weighs 160lbs. (72Kg.), there is 4lbs. (1.87Kg.) of nitrogen present.
8. Nitrogen is found in the muscles, blood, fibrous tissue, also in the hairy and horny tissues.
9. Nitrogen increases assimilation of pigments.
10. Its power upon the functions of the mind and disposition is inhibitive.
11. It enhances magnetic and electrical qualities.

### iv. CONSTITUTIONS IN WHICH NITROGEN IS INHERENTLY

- a) **Excessive:** (functionally) Nitropheric, Pathetic.  
(organically) Calciferic, Desmogenic, Myogenic.
- b) **Deficient:** (functionally) Oxypheric, Lipopheric, Exesthesic,  
Sillevitic, Nervi-motive  
(organically) Nitropheric, Pallinomic, Pathetic.

### v. SYMPTOMS WHEN NITROGEN IS EXCESSIVE.

1. They dislike drugs, have an active pride, distant manners, a cold skin, very dark complexion, feel gloomy in murky weather; they are suspicious, tardy, orderly and lofty in mind.
2. They have a love of the weird and romantic; a hatred for dirt.
3. The mind seems as if it influenced by opium.
4. They are in a state of lethargy, and manifest oxygen hunger.
5. They are unable to decide; fear change and enterprise.

#### **vi. SYMPTOMS WHEN NITROGEN IS DEFICIENT.**

1. Enthusiasm, lack of control, mental intoxication, instability, exaggeration, hyperaemia, hot blood, changeable disposition, very impulsive, elopement.

#### **vii. HOW TO REDUCE NITROGEN IN THE BODY.**

1. **Foods:** Eat foods containing sulphur, potassium, sodium, calcium, silicon, oxygen, and ferrum.  
Omit foods containing nitrogen, carbon, hydrogen.
2. **Climate:** Live in cool and breezy hills; abundant ozone.
3. **Mental Exercise:** Volitive, progressive, revolutionary.
4. **Physical Exercise:** Do vigorous, exertive, laborious work.

#### **viii. HOW TO INCREASE NITROGEN IN THE BODY.**

1. **Foods:** Eat nitrogenous and alkaline foods.  
Omit foods containing potassium, sodium, calcium, silicon, oxygen, and ferrum.
2. **Climate:** Live in tropical climate; like Louisiana, Italy, or Africa; low altitude, humid.
3. **Mental Exercise:** Indolent, Sentimental, Imaginative.
4. **Physical Exercise:** Pleasurable and recreative.

#### **ix. PEOPLE WHO REQUIRE NITROGEN FOODS**

1. **In abundance:** Stormy, fiery, restless, agitative, choleric, sanguine, wild temperaments; or mainly light complexioned people.
2. **Very little:** Phlegmatic, melancholic, dark moods, sentimental, unprogressive.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF NITROGEN FOODS ON**

1. **Health:** Disturbs the health, and leads to disease.
2. **Disposition:** Becomes phlegmatic, sleepy, lethargic.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF NITROGEN FOODS ON**

1. **Health:** The tissues do not assimilate albumin.
1. **Disposition:** Stormy, impatient, familiar, impulsive, moody, fickle, featherbrained.

#### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM NITROGEN IS IN EXCESS.**

1. Heart disease, enlargement of liver, obesity, nitrogen retention results in the formation of carbon dioxide, by keeping oxygen out of the body.
2. This leads to lethargy, phlegmasia, catalepsy, swelling, stupor, nervous ailments, effusion, tetany, necrosis, paralysis.

#### **xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS NITROGEN SHOULD**

1. **Eat:** Sulphur, potassium, sodium, calcium, silicon, oxygen, ferrum.
2. **Avoid:** Nitrogen, carbon, hydrogen.

**xiv. HELPFUL HINTS.**

1. The blood lacks fibrin, and alkaline salts.
2. There is a scarcity of silicon and calcium.
3. Involuntary muscles are weak; tissues are tender and fragile.
4. Oxygen is lacking.
5. Retention of free Nitrogen is the main cause of the Nitropheric constitution; also starches found in starchy vegetables, etc., such as potatoes, peas, beans, also in nuts, barley, rice, wheat, corn.

**xv. PRINCIPAL NITROGEN FOODS.**

1. Mainly meat, especially chuckbeef, dried beef, ham, lean flank; also dried sturgeon, lean mackerel, smoked herring, beans, peas, egg white, cheese - especially Dutch cheese - nuts such as, almonds, butternuts, raw peanuts, pignolias, walnuts.

## **6.v. SODIUM.**

### **i. SODIUM IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Sodium is abundant in nature.
2. It is a constituent of salt and therefore occurs in salt water, in plants and in plant crops that grow near salt water, and in the earth (as common salt) etc.
3. Native Sodium comes mainly from such mineral waters as French Vichy, Aaix, and Carlsbad.
4. It comes also from the geysers of Iceland and from evaporation of seawater.
5. One Litre of seawater contains about 30 grams salt, which of course is also rich in sodium.
6. Sodium salts found in plant foods are organic in form, while those chemically prepared are inorganic.
7. Organic sodium is preferable to inorganic sodium (salt).
8. Bicarbonate of soda is the soda used by cooks. This is a white powder, having a cooling spicy alkaline taste, and is soluble in twelve parts of water.

### **ii. SODIUM, ITS NATURE AND CHARACTERISTICS.**

1. Sodium (or natrium) is a silvery white, alkaline metal with a remarkably brilliant lustre.
2. It has positive electrical characteristics, and has a strong affinity for oxygen and chlorine, and, in consequence, it is now made commercially for the reduction of magnesium and similar metals.
3. Its chemical compounds are of high importance.
4. Sodium was discovered in 1807 by Sir Davy, who, by means of electricity, separated the Sodium element from Oxygen.
5. Sodium oxidises rapidly in air, but less rapidly than potassium; it neutralises acid and has a curative effect.
6. When sodium is heated in oxygen it bursts into a flame and burns with a yellow light.
7. Sodium has a decomposing effect on water.
8. If the water is hot the sodium acts spontaneously.
9. It has attraction for humidity.

### **iii. FUNCTIONS OF SODIUM IN THE HUMAN ORGANISATION.**

1. Sodium is present in all animals and human beings.
2. In the average person who weighs about 160lbs. (72Kg.), two and one half ounces (0.07Kg.) of sodium are present.
3. Free sodium is needed in all people, but more in certain types of people than in others.
4. It is found more in people who live close to the land and nature, and gives them an inherent rugged health.
5. Sodium and its compounds act upon the convolutions of the brain, especially upon those that control the metabolic functions.
6. It acts favourably upon the medulla, the blood, the secretions, the mucous, and serous membranes, upon the throat, the alimentary canal, the secretory glands, the synovial membranes, the stomach, the intestinal walls, the spleen, the pancreas, and upon albumin metabolism.
7. Sodium increases the function of osmosis and holds calcium, albumin, and fibrin in solution.
8. It has a soluble effect upon calcium in the human body.
9. Sodium enters into all connective tissue, into joints, bone tissue, cartilage, fibrocartilage, ligaments, synovial membranes, into the spleen, the brain, muscles, liver, blood corpuscles, and other parts of the body.
10. Lymph contains 0.70%, the synovia holds 0.80%, the cartilage has 0.90%, and the brain 0.20% of sodium.
11. Because of their alkalinity, sodium salts assist the lymph and the blood, giving these fluids their alkaline characteristics.
11. Sodium is more abundant in flesh eating animals.
12. Sodium carbonate is more abundant in non-flesh eating animals.

13. Sodium bicarbonate is essential for fat metabolism, to break up neutral fats into fatty acids and glycerides.
14. In conjunction with pancreatic juices, sodium bicarbonate takes up and retains fat.
15. Pancreatic juice, in addition, contains many enzymes, which help to convert the starches, fats and proteins to a suitable state for assimilation.
16. Sodium bicarbonate in food form, has a beneficial effect on the throat and nasopharynx.
17. It helps catarrh and catarrhal pus, bronchial phlegm, secretions formed on the digestive canal wall, on the walls of the stomach, and on those of the chest.
18. A sodium diet is valuable in acid states of the stomach, or in gout, or in diabetic acidity.
19. Sodium phosphate is excellent for acid conditions of the stomach.
20. Sodium phosphate splits up lactic acid and liberates moisture.
21. All tissues and fluids should be bathed in a slightly alkaline medium.
22. An ordinary man, under normal conditions, secretes in twenty-four hours, between two and three pounds of saliva (0.9 - 1.4 Litres).
23. Sodium salts are present in the saliva, (aids digestion) in the bile, (prevents constipation) and in the lecithin, (increases brain action).
24. Sodium carbonate, sodium bicarbonate, sodium chloride, and other sodium compounds enter into, and play an important part in human biochemical processes, fluids, and tissues.

#### **iv. CONSTITUTIONS IN WHICH SODIUM IS INHERENTLY**

1. **Excessive:** None.
- Desmogenic:** Excessive consumption of sodium.
2. **Deficient:** Desmogenic, Nervi-Motive, Marasmic, Atrophic, and in all acid constitutions, most deficient in all old people in many babies and children, and in a many very fat retaining constitutions.

#### **v. SYMPTOMS WHEN SODIUM IS EXCESSIVE.**

1. Deathly paleness, flexibility, amazing work activity and energy, wiriness of constitution, dexterity, catlike movements, keen sense of gravity, flexibility of the body, love of athletics and forest life, or outdoor life, anger in the morning, elephantine memory for wrongs or injuries, stormy moods, spells, notions, and hobbies; periodicity of functions, amorousness, tendency to fanaticism or desperadoism, strong likes and dislikes, extreme ideas; tendency to heat strokes, sun strokes, sensitivity to wind, cold, moisture, pneumonia, and great recklessness.

#### **vi. SYMPTOMS WHEN SODIUM IS DEFICIENT.**

1. Gout, indigestion, vomiting, rheumatism, frontal headache, stiffness in the vertex, bloating; poor sense of smell, catarrh of the nose, sensitivity to draughts (worse some days; absent other days), murky complexion, burning face, dry tongue, dry skin, cold feet, sleepy during the day, heart bothers, gas in the stomach, hard stomach, breath has an odour like sewage, lack of hydrochloric acid, slow digestion, burning in the stomach, irritability, fear of sudden downward motion, acid stomach, difficult in reading small print, confusion of the mind.

#### **vii. HOW TO REDUCE SODIUM IN THE BODY.**

1. **Foods:** Eat foods and drink drinks rich in potassium and calcium. Omit sodium foods.
2. **Climate:** Hot climate.
3. **Mental Exercise:** Pleasing mental, and emotional.
4. **Physical Exercise:** Pleasing physical.  
All exercises should be pleasurable.

#### viii. HOW TO INCREASE SODIUM IN THE BODY.

1. **Foods:** Eat foods rich in sodium.  
Omit potassium and calcium foods.
2. **Climate:** Genial, breezy climate.
3. **Mental Exercise:** Pleasing mental, and emotional.
4. **Physical Exercise:** Pleasing physical.  
All exercise should be pleasurable.

#### ix. PEOPLE WHO REQUIRE SODIUM FOODS.

1. **In abundance:** All sickly people, and all calcium people.
2. **Very little:** All people who have an excessively alkaline constitution, also very young people who have a happy disposition.

#### x. INFLUENCE OF AN EXCESSIVE AMOUNT OF SODIUM FOODS ON.

1. **Health:** Excess of sodium salts destroys the oxygen-carrying capacity of haemoglobin, diminishes tissue oxidation, decreases the nitrogen metabolism of fats until an alkaline obesity and anaemia develop, increases metabolism of sugar, and creates an abnormal appetite for sugar, decreases bile action, over-stimulates the glycogenic centre in the brain; sugar gluttony, precipitation of calcium phosphate, over-alkalinity of the blood; alkaline diseases; autointoxication, indigestion, and growth of germ life.
2. **Disposition:** Tendency to scandalise others, bitter hatred, malice, impatient disposition, stormy moods, eccentric characteristics, restless disposition, erratic hobbies, drinking tendencies.

#### xi. INFLUENCE OF A DEFICIENT AMOUNT OF SODIUM FOODS ON

1. **Health:** Results in disease of all Sodium structures in the body.
2. **Disposition:** Nervous disposition, nerves are on fire, poor concentration, defective memory, unreliable judgement, fear of darkness, fussiness, drowsiness, restlessness, stupidity, cries easily, absent-minded, inexplicable longing for something.

#### xii. DISEASE TENDENCIES OF SODIUM PEOPLE.

1. Excitability, weariness, tired spells, hysterical moods, vertigo, mental depression, poor eyesight, melancholia, physical exhaustion, irritated nerves, aphonia, fear, chlorosis, mental disorders, tendency to sun stroke, acidity, catarrh, excessive thirst, stasis in the colon; burning, bursting and hammering pains, headache; falling of the hair, asthma, cardiac difficulties, rheumatic throat ailments, gout, sciatica, lack of muscular strength, twitching of the eyelids, eyesight that requires newer and newer glasses, gas pressure, throat and lung ailments, albuminuria, appendicitis, numbness, laxity in the motor equipment, need of cosmetics, cramps, ossification, and abnormal bone formation.

#### xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS SODIUM SHOULD

1. **Eat:** Starches, fats, sweets.
2. **Avoid:** Sodium and magnesium.



#### **xiv. SPECIAL NOTES.**

1. The excessive use of bicarbonate of soda should be guarded against, as it may readily unbalance the natural balance of minerals in the blood and tissues.
2. It may be made relatively harmless for use by combining two parts of it with one part of bicarbonate of potassium.
3. It should always be remembered however, that a human being is organic, and not inorganic; and that, therefore, organic sodium bicarbonate, sodium sulphate, sodium chloride, sodium phosphate, or sodium in whatever form it may be, as found in foods, is always the genuine article.

#### **xv. PRINCIPAL SODIUM FOODS.**

Those shown in capital letters are the most desirable sodium foods.

CARROTS	Apples (Sweet)	Milk, cow's
CELERY	Asparagus	Milk, goat's
GIZZARD	Beets	OATMEAL
LENTILS	Coconut	Prunes
NUTS, ALMOND	Cucumbers	Radishes
NUTS, PISTACHIO	Egg Yolk	Rutabagas
OKRA	Figs	Turnips (Mainly because
SPINACH	Fish	(Sodium and silicon
STRAWBERRIES	Gooseberries	(are combined.

#### **xvi. HELPFUL HINTS.**

1. Sodium containing foods should always be eaten under the following conditions:
  - When the digestion is bad.
  - When infants vomit.
  - When there is a tendency to gout, or rheumatism.
  - When the front part of the head aches.
  - When there is stiffness in the vertex, or bloating.
  - When it is difficult to read small print without apparent reason.
  - When the mind is confused.
  - When the sense of smell is poor.
  - When the throat is catarrhal.
  - When the patient is sensitive to gas.
  - When he is worse some days, and well other days.
  - When there are tendencies to eruptions.
  - When white spots appear in the palms of the hand.
  - When the complexion is murky.
  - When the face burns, and the tongue and skin are dry.
  - When the feet are cold.
  - When becoming sleepy during the day.
  - When the heart bothers.
  - When the joints crack, the tendons are stiff and compact.
  - When tissues become bruised without any seeming reason.
  - When the tendons are shortened and stiff.
  - When gas is generated in the stomach.
  - When cold drinks produce pain.
  - When the breath has an odour of sewage.
  - When the urine changes in odour, colour, and specific gravity, or is, perhaps, entirely too low in specific gravity.
  - When the menstrual function is disturbed in a mother.
  - When the salivary glands dry up.
  - When the patient is gloomy after meals.
  - When there is lack of hydrochloric acid in the stomach.
  - When the digestion of starches, fats and sweets is low and sulphur containing foods produce gas.
  - When there are burning pains in the stomach.
  - When a young girl is fussy without any seeming reason, and flies into a rage about trivialities.
  - When a patient is afraid of sudden downward motion.
  - When he is very gloomy.
  - When the patient is weary.

2. Rob the stomach and bowels of their food salts of sodium and soon an unhealthy intestinal flora will flourish whose number may run up into billions.
3. When a person gets sleepy after meals it indicates that the digestion is slow, and that the sodium supply is low.
4. Sodium salts are used up in greater quantities in warm sultry weather. They are washed out of the system by water drinking.
5. Heavy physical work calls for more sodium foods in the diet. Fevers, gas, excitement, passion, perspiration, all drain the body of sodium salts.
6. Sexual excesses uses up sodium salts, the neurolin in the brain, the iron in the haemoglobin, and lowers nitrogen metabolism.
7. Pregnancy calls for iron, calcium, silicon, and sodium in abundance.
8. Menstruation uses up sodium salts. The spleen drinks sodium salts like a thirsty man drinks up water.
9. The bile, gastric juices, the blood, the intestinal and other secretions, all call for sodium, and more sodium.
10. Calcium metabolism calls for sodium salts, for sodium keeps calcium in solution.
11. The blood, liver, muscle, brain, corpuscles, fibrous tissue, cartilage, synovia, blood, serum, lymph; in fact nearly all body fluids call for sodium salts.
12. A fatty, starchy diet calls for sodium; or fermentation and acid formation takes place.
13. As soon as there is acid and waste matter working, one upon the other, bacteria become prolific.
14. A sodium diet is necessary in the diabetic patient in connection with certain other important alkaline salts. Such sodium bicarbonate as comes from plants growing near large bodies of salt water is preferable.
15. Such greens as watercress, okra, celery, or other sodium containing juices, are excellent for the patient manifesting sodium hunger.

## 6.vi. FERRUM.

### i. FERRUM IN THE MINERAL AND VEGETABLE KINGDOMS.

1. Iron is found native in small quantities, but it is chiefly derived from ores as magnetite, hematite (ferric oxide or Jeweler's Rouge), and limonite (ferric hydroxide), which are abundant and very widely distributed.
2. It is an essential constituent in plants and animals and is found in seawater and mineral water.
3. Iron exists in the sun and stars and comes from space to the earth in the form of meteorites.
4. Iron has a great deal to do with the development of the haemoglobin, the red corpuscles of the blood. Without haemoglobin, all higher animals would be unable to breathe the air, being unable to bind and transport oxygen with their blood to the tissues of the body, and collect carbon dioxide, to be released by the lungs into the atmosphere.

### ii. FERRUM ITS NATURE AND CHARACTERISTICS.

1. Iron is the most important of the metallic elements; it is silvery white when pure, and very tenacious, malleable, and ductile.
2. As found in commerce, it is never pure, but is combined with small quantities of carbon, phosphorus, silicon, sulphur, etc. with which it forms important alloys viz.: Cast iron, wrought iron, forged iron and steel.
3. The salts of the iron are largely used in medicine as tonics.
4. ANTIDOTE: Bicarbonates in water, ice, opium.
5. Iron is a twin brother to oxygen, and has a strong affinity to oxygen.
6. Metallic iron is not converted into haemoglobin.
7. It is either captured by the intestinal epithelium, or may even enter the bloodstream to a certain degree and give a temporary impetus to vital life, but soon it is thrown out of the system through the liver and perhaps through the kidneys.
8. In the latter case it will do harm to the kidneys.
9. Iron that is found in food is organic iron, and is more readily converted into haemoglobin in the liver, after which it is ready for its transportation to the bone marrow, where the haemoglobin becomes duly qualified for its function of oxidation of blood and tissues.
10. If it does not pass through all the stages of haemoglobinogenesis, and if it stays in the bloodstream of the liver, spleen and bone marrow only for a time, without passing through the metabolic processes of organic life, it will be eliminated through the bile, it only stimulates oxidative energy in the blood, without entering into the hum of organic tissue life as an iron compound.
11. Iron is the most astringent of all metals.
12. It contracts when it is cold, and expands when it is warm, or hot.

### iii. FUNCTION OF FERRUM IN THE HUMAN ORGANISATION.

1. Iron stimulates the sex function.
2. It supplies the blood salts.
3. In the average normal man who weighs 160lbs. (72Kg.), one fifth of an ounce (0.006Kg.) of Iron are found.
4. Iron is the most important of all blood salts. It is a tonic.
5. It supports vital energy, increases elimination, generates life, pleasure, health, response.
6. It increases heat, temper, sentiment.
7. Approximately 3.25grams of iron are found in the blood, or about enough iron to make a good-sized nail. This small quantity of Iron nevertheless has a very important function to perform.
8. It is the gateway through which oxygen enters the system, for iron always combines with oxygen in the presence of moisture, whether it is in the human blood or elsewhere.
9. It oxidises the blood and promotes the generative functions.

10. If there were no iron in the blood, the body could not absorb oxygen from the air in the lungs and a man would suffocate in the same way that fire goes out when the oxygen supply is cut off.
11. In the absence of iron in the haemoglobin of the red corpuscles of the blood, animal life would not prosper very long; metabolism would, at once become faulty.
12. The oxidation of the blood in the lungs depends upon the iron, or haeme in the haemoglobin of the red corpuscles of the blood.
13. A normal quantity of iron in the blood and tissue means greater free oxygen consumption and greater oxygen availability for the blood and tissues, which in turn means a higher degree of magnetism, animation and vigour.
14. Carbon dioxide is carried off from the body through the combined action of oxygen and sodium.
15. Oxygen is a generator of heat. Bodily heat is mainly generated by the muscles, acted upon by oxygen. Wherever oxygen is at work, heat is generated either slowly, or rapidly. People who generate animal heat in abundance are rich in oxygen, iron, potassium, and chlorine.
16. Such people never suffer from catarrh, or from cold feet.
17. Iron and oxygen, when normally and vigorously active, enable the parents to transmit their highest qualities to their children; for oxygen arouses every cell, increases life force, nerve energy, sex, magnetism, and transmissive power.
18. It is better to have oxygen and iron in the blood than to study 1,000 volumes on eugenics; iron enables parents to produce better offspring.
19. Oxygen fires up sentiment. Iron urges the lover to a more romantic approach.
20. Iron and oxygen are natural beauty specialists, and will increase charm, beauty, and magnetism. The lady who has iron and oxygen in abundance in her veins and arteries, will never need any face powder, and will need no instructions in beauty culture. Her eyes are magnetic, her cheeks glow, her arteries are active and elastic, her blood is rich and warm and she has great power of attraction to the opposite sex.
21. Youthfulness is closely associated with iron and oxygen. That man who has plenty of iron and oxygen in his system looks young when he is old. Again, when oxidation is perfect, cuts, bruises and injuries heal rapidly. A person recuperates more quickly from an illness because the power of self-healing is present in the blood.
22. Iron is mainly found in the colouring matter of the blood in the lymph, in the bile, in the gastric juice, in the pigment of the eye, skin and hair.
23. It exists in the human body as a ferric oxide, always in combination with organic compounds.
24. Iron is utilised in the chromogenic processes taking place in the haemoglobin of the red corpuscles of the blood.
25. Iron is stored in the body and is utilised over and over again in the manufacture of new oxygen carrying blood corpuscles.

#### **iv. CONSTITUTIONS IN WHICH FERRUM IS INHERENTLY**

1. **Excessive:** Myogenic and Oxypheric.
2. **Deficient:** Neurogenic, Pathetic, Desmogenic, Carboferic.

#### **v. SYMPTOMS WHEN FERRUM IS EXCESSIVE.**

Sensuality.	Headache and stupidity.
Absent-mindedness.	Blood pressure increase in brain.
Hardness of hearing.	Dullness of the senses sets in.
Feeling languid.	Intracranial pressure.
Reason dull.	Tension in the head.
Mind distracted.	Mind in a mental mist.
Thoughts scattered.	Partial loss of faculty.
Heavy in heart.	Things less clear than previously.
Heavy in thought.	No longer former self.
Blood pressure.	Blood and brain are under Iron pressure, or Iron gravity.
Plethora.	Sleepiness overtakes him, and his disposition becomes sleepy.
Haemorrhages.	Dullness, and blind spells.

#### **vi. SYMPTOMS WHEN FERRUM IS DEFICIENT.**

Dullness.	Ready to weep.
Stupidity.	Tendons jerk.
Lack of ambition.	Voice rattles.
Disease.	Disturbed mornings more than evenings.
Loss of memory.	More lively in evening.
Cold hands and feet.	Subject to outbursts of anger.
Greenish tint in face.	Lower part of head aches indicating lack of Iron & Silicon.
Night sweats.	Sympathetic system drained to point of agitation & excitement.
Irritability.	Difficulty in solving problems, studying, forming plans, memorisation.
Depression.	Weeps, laughs, complains, plays all without normal regulation.
Indolent and excitable.	Broods over trouble that never comes.
Sleeplessness.	Unfavourable expressions from others may unbalance the nerves and seriously agitate the emotions.
Restless dreams.	May scream from violent agitation.
Oversensitive nerves.	Instinctive fear of crossing water, but likes wood and hills.
Murky complexion.	Dislikes wind, moisture, stir, noise, fluster, and commotion.
Craves love & sympathy.	Prone to exaggerate of own ailments.
Whining and fussy.	Inclined to answer questions unpleasantly, and in a surly manner.

#### **vii. HOW TO REDUCE FERRUM IN THE BODY.**

1. **Foods:** Eat foods containing sulphur, carbon, hydrogen and nitrogen.  
Omit foods containing iron, magnesium.
2. **Climate:** Live in low altitude, where climate is very wet.
3. **Mental Exercise:** Draw blood to the brain by means of intellectual and emotional work.
4. **Physical Exercise:** Drink water abundantly; sit still indoors.

#### **viii. HOW TO INCREASE FERRUM IN THE BODY.**

1. **Foods:** Eat foods containing iron, magnesium, chlorine, potassium, sodium, calcium, silicon, oxygen, iodine.  
Omit foods containing sulphur, carbon, hydrogen, and nitrogen.
2. **Climate:** Live in a high altitude, or in the hills - a high sky - where the air is breezy and attenuated.
3. **Mental Exercise:** Do not use the brain.
4. **Physical Exercise:** Engage in outdoors physical exercises, also active breathing exercises.

#### **ix. PEOPLE WHO REQUIRE FERRUM FOODS**

1. **In abundance:** Neurogenic, Pathetic, Desmogenic, Carboferic, Nitropheric, Atrophic, Pargenic; also all sick and old people.
2. **Very little:** Oxypheric and Myogenic.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF IRON FOODS ON**

1. **Health:** Blind spells, blood pressure, excessive nerve pressure, intracranial pressure, too much blood in liver.  
The specific gravity of the blood is too high, running up on the scale until the person's life is in danger.
2. **Disposition:** Lethargic.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF FERRUM FOODS ON**

1. **Health:** The blood is impoverished; disease sets in; the tissues lack muscle iron; the person is neither sick nor well; but is more sick than well, and really is a walking sick person.

#### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM FERRUM IS IN EXCESS.**

1. Trouble with digestive function, bowels, kidneys, and blood.
2. The fibrin, albumin, and solids are excessive in the system.
3. The blood is produced beyond the needs of the system.
4. Blood is increased above the normal level.
5. Danger of rupture of arterioles, veins, and aneurism.
6. Solids become excessive, and the portal system becomes congested.
7. Palpitation of heart, tingling in ears, nosebleed.
8. Dilation of blood vessels, thick blood, congested veins.
9. Leads to haemorrhages; blood specific gravity changes.
10. Oxygen consumption becomes excessive; the eyes bulge.
11. Tongue and teeth are discoloured, and digestion is disturbed.
12. Thirst is unquenchable; headache and nausea sets in.
13. Faeces are darkened; gastrointestinal disturbances.
14. Difficulty of respiration; oppressive internal heat.
15. Dexterity is not as good as usual.
16. Iron, being an astringent, binds, contracts and draws.
17. This internal astringency affects nerves, blood, intestinal canal walls, arteries, and the heart muscle.
18. Contraction of the heart muscle affects the pulse.
19. Constricting the arteries increases the blood pressure.
20. By administering an astringent to the bowels, constipation appears.
21. By drawing the muscles within a smaller compass, urea is increased, and the bladder is contracted, resulting in frequent urination.

#### **xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS FERRUM SHOULD**

1. **Eat:** Foods rich in sulphur, carbon, hydrogen, and nitrogen.
2. **Avoid:** Foods rich in iron, magnesium, chlorine, potassium, sodium, calcium, silicon, oxygen, iodine.

#### **xiv. HELPFUL HINTS.**

1. Deficient Iron is caused by:-  
Hereditary disorders.  
Disposition.  
Overwork.  
Illness.  
Old age.
2. An Iron diet is good for the "blues", or for low oxidation.
3. The mucous and serous membranes, bile, urine, skin, and intestines are the agents through which iron is eliminated from the body.  
It is mainly eliminated through the bowels, as a sulphur-albuminate.  
In the stomach it is changed into a chloride, and enters the blood as an albuminate; being transported by the blood plasma.

4. The spleen, marrow and liver are the ferric (iron) storehouses of the body. When the iron supply runs too low, these organs feel the effect first. When the blood, tissues and lungs suffer, iron is not supplied in normal quantities.
5. Iron and oxygen stir everything to action. Iron and oxygen mean vim and vigour, stirring into action, the energy in the functions, optimism and enthusiasm to the mind, and a high degree of personal magnetism. Iron and oxygen stimulate functions, encourage ambition, stir up sentiment, increase reason, increase emotions, arouse appetite, improve memory, paint the faded cheek, increase masculine power, and feminine charms.
6. Iron is absorbed mainly by the duodenum, after being converted by the stomach into an iron chloride. It is not so readily extracted from food that has been digested by the stomach first, as from fruit juices containing iron.
7. When iron, as contained in fruit juice, enters, the duodenum contracts and holds the liquid until the iron compound contained in the fruit juice has been absorbed, in this way it extracts it more completely than it possibly can from solid food, because much of the iron in solid food escapes the assimilative efforts of the duodenum.
8. If the kidneys excrete metallic iron, it injures those organs. It is unwise to inject inorganic compounds into the bloodstream, as they may injure the kidneys, and have a detrimental effect in other ways; nor is this necessary, because certain berries and other foods carry those important iron compounds.
9. Strong doses of metallic Iron have a constipating effect upon the bowels, a styptic effect upon the arteries and veins and an inhibiting upon the vibratory action of the cells, resulting in stupidity.
10. In testing the effects of inorganic iron on mice Dr. Socin fed drug store iron to one group of mice, in the form of iron-chloride; and fed another group on free iron food, plus raw egg yolk (egg yolk is rich in iron). All mice fed on the drug store iron were dead before the 33rd day of the experiment; but the mice fed on the foods containing iron lived and gained weight.
11. Dr. Lelensky, another experimentalist, fed dogs polished rice. In one day the haemoglobin in one dog fell from 18 to 13. In another dog, it fell from 14 to 11. Anaemia became more and more pronounced in the dogs, as the experiment continued; and on the 18th day some of the dogs died.

#### **xv. WHEN AN FERRUM DIET IS NEEDED.**

1. Palpitation of the heart upon arising.
2. Perspiration of face on one side, while other side is dry and perhaps flushed.
3. Tendency to colds in the head.
4. Face pale at one time, and flushed at another time, and murky, or yellowish, or pale, or grey at still another time.
5. Mental confusion; crying against the will; verbal mistakes.
6. Peevish, anxious, whining, craven, disheartened, changeable mind.
7. Trivialities seem insurmountable; cloudy mind.
8. Fatigued by: reasoning, conversation, reading, thinking.
9. Fearful of losing reason.
10. Alternating pain in kidneys, and in the spleen.
11. Desire for indigestible things; craving for stimulants.
12. Fullness and dryness in throat.
13. Tender nostrils.
14. Laxity in organs so they are not held in place.
15. Increased psychical sex desire, with decreased physical sex desire.
16. Tendency to sneeze or towards a dry hacking cough; husky voice.
17. Lack of control of involuntary functions, causing partially involuntary discharges.
18. Constriction and laxity in organs.
19. The lower limbs tremble, or are heavy.
20. Cold hands and feet. Intolerable itching.
21. Pulsation in finger tips, pelvic organs, cerebellum, temples, epigastrium, or elsewhere.
22. Painful lungs; rattling breath.

23. Bloody taste in mouth.
24. Chest is heavy.
25. Eructations from the stomach, or flatus from the bowels; tightness in the head, around the chest; constriction in heart muscles, vertigo.
26. A seeming fog or film in front of the eyes, making objects appear indistinct; tired eyelids. The eyes seem sleepy.
27. Eyes are sore, or inflamed, or hot, or tearful.
28. Strong tendency to carry arms above the head and stretch the limbs.
29. The sense of smell is weakened.
30. Shoulder joints are painful, tendons jerk, nerves are tired.
31. Lively in the evening; stupid in the morning.
32. Nervous, excitable, fussy, tearful, hysterical, sensitive.
33. Can see better in the dark than in the daylight.
34. Dry, hot, weak, lax, tired, feverish.
35. Dry throat and organs.
36. Foul breath; heavy pressure in the pit of the stomach.
37. Cramping pain in spleen; suffocating sensation.
38. Tenderness in the liver and abdomen; heaviness of the eyes.
39. Lamé arms, stiff neck, tickling in throat, and in nose.
40. Faded cheeks, pale face, shriveled skin.
41. Uterine displacement.
42. Dull hearing during menstruation.
43. Sensitiveness to pressure.
44. Kidneys in state of laxity.
45. Strong tendency to pernicious and common anaemia, pneumonia, asthma.
46. Hysteria, menstrual ailments, nervousness, prostration.
47. Feels the need of support and sympathy, or a bracing tonic.
48. Tender scalp; feeling of heaviness and tension in the brain.
49. Nerves quiver, spleen under tension, liver enlarged.
50. Danger of thrombi forming in arteries or of aneurism in the brain.
51. Neuralgic pains fly throughout the system.
52. Nerve plexuses are dry and hot; genital organs under tension, resulting in hysterical attacks.
53. Cerebellum is under tension, so that equilibrium and co-ordinative power of fingers, nerves, and muscles is disturbed.
54. Face burns and perhaps is ash-grey.
55. Stiff arms, the ankles lax.
56. Voice, lower lip and hands in a state of tremor.
57. Small of back tender, perhaps weak and stiff.
58. Suffocating spells, constriction of the throat muscles.
59. Poor eyesight; soles of feet burn; lower limbs cold in cold weather.
60. Blood flows mainly to face and lungs.
61. Sleepy, heavy feeling; irritable and confused.
62. Wants something, but does not know what it is.
63. Symptoms increase, as carbonic acids increase in atmosphere.
64. Subject to haemorrhages during the menstrual period.
65. Decrease of urea, albumin, nitrogen, potash and calcium.
66. Faultfinding tendency with, or dislike of one's spouse.
67. Oppressive respiration, anaemic blood, acid blood.
68. Frequent perspiration, or enuresis.
69. Partial deafness; heart murmur.
70. Desire for long walks in fresh air.
71. Carotids pulsate like miniature hearts; difficulty in walking upstairs.
72. Urine is red, perhaps hot and burning.
73. Food only partially digests.
74. Chest is tender.
75. Blood in faeces.
76. Weak rectal muscles; anus burns and smarts.
77. Discharges corrode; parts smart, burn, and itch at the same time.
78. Stinging headaches.
79. Craves rest, repose, and quiet.
80. Tumors develop in uterine tissues and perhaps elsewhere.
81. Bladder becomes weak.
82. Sleepless at night; sleepy during the daytime.
83. Touchy, supersensitive, hard to please; wants to weep.



84. IN TIMES OF ABOVE NAMED SYMPTOMS, A HEAVY IRON FOOD DIET IS IMPERATIVE, ALSO DEEP BREATHING, SIMPLE ACTIVITIES, QUIET REST IN A PINE FOREST OR IN THE HILLS.

**xvi. PRINCIPAL FERRUM FOODS (ALPHABETICALLY ARRANGED).**

1. The percentages given below are the percentage of ferrum salts in the ash content contained in the foods named.
2. The vitamins (life force) are found only in natural unrefined foods, refining foods removes the life force.
3. Cooking will destroy some vitamins, and may in many instances, alter the chemical composition; and hence affects all fruits and many vegetables.
4. Vitamins deteriorate with age.
5. Fruits and vegetables directly from the garden or orchard are far more valuable for their vitamins than are after keeping them stored for few months, weeks, or even a few days.
6. To obtain all the vitamins, chew and eat the seeds and pits (except any inedible parts) of all fruits named herein.
7. Eat these foods without adding granulated sugar, vinegar, or cream.
8. All foods named herein are organic, except drug irons, which are inorganic and harmful to the health.
- 9.

<b>BEST FERRUM FOODS</b>	<b>ASH CONTENT</b>	<b>FERRUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Beef juice raw.	Medium	9.40	Yes	Raw
Bilberries.	High	5.30	Yes	Raw
Blackberries wild.	High	19.00	Yes	Raw
Head Lettuce	Low	7.44	No	Raw
Lettuce.	Medium	1.40	No	Raw
Ox blood.	Very High	9.47	Yes	Raw

10.

<b>SECOND BEST FERRUM FOODS</b>	<b>ASH CONTENT</b>	<b>FERRUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Asparagus.	Low	3.40	Destroyed	Cooked
Berries, dark (not elsewhere named herein).	Low	Some	Yes	Raw
Blackberries Cultivated.	Medium	3.50	Yes	Raw
Currants, black.	Medium	1.17	Yes	Raw
Currants, red.	Medium	1.30	Yes	Raw
Egg Yold, raw.	High	0.80	Yes	Raw
Pears, bartlett.	Low	1.10	In stones	Raw
Prunes.	Low	2.50	In pits	Stewed/raw
Spinach.	Very High	3.35	No	Cook 3 minutes
Shredded wheat biscuits.	High	1.35	Perhaps	Raw
Strawberries.	Medium	5.90	In seeds	Raw

11.

<b>THIRD BEST FERRUM FOODS</b>	<b>ASH CONTENT</b>	<b>FERRUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Bran, wheat.	High	1.60	Destroyed	Cook/bake
Barley Bread, whole.	Very High	1.70	Destroyed	Baked
Cherries, black.	Very Low	0.47	In stones	Raw
Figs, dried.	Very High	0.92	In seeds	Raw
Grapes, concord.	Low	0.90	In seeds	Raw
Lentils.	Very High	2.00	Destroyed	Cooked
Raisins.	Medium	0.63	In seeds	Raw
FERRUM, DRUGS.	Very high	Inorganic	None	Leave alone

## **6.vii. CHLORINE.**

### **i. CHLORINE IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Chlorine occurs in table salt.
2. This salt is found mainly in ocean water and salty lakes.
3. It occurs also in the soil, in certain strata of the earth, and in the vegetable kingdom; as well as the animal kingdom; also in mineral waters; even in rainwater.
4. Chlorine is a nonmetallic element discovered by Scheele in 1774.
5. In nature, it is found in a state of combination. United with sodium, it (chlorine) occurs very largely as chloride of sodium (common salt).

### **ii. CHLORINE ITS NATURE AND CHARACTERISTICS.**

1. The electrical character of chlorine is negative.
2. It has a remarkable affinity for hydrogen, which enables it to decompose compounds containing hydrogen; hence, its ability to bleach, fade colour and disinfect.
3. Chlorine is a powerful deodoriser and has a germicidal action.
4. Chlorine is a greenish-yellow, very poisonous, liquefiable gaseous element with an offensive odour.
5. It has a bad effect upon wallpaper and coloured fabrics; hence, it is not much used for cleaning fine fabrics.
6. Chloride is valuable for bleaching, especially when aided by dew, air, and ozone. Those who bleach have learned to lay the washed fabrics on the grass for better results.
7. Chlorine is highly caustic, and its disagreeable odour produces a suffocating cough, which is relieved by inhaling ammonia.
8. It is a very heavy gas - nearly 2.5 times heavier than air.
9. Chlorine combined with phosphorus or with arsenic is inflammable.
10. It has a powerful affinity for water and is soluble in water.
11. The antidote for chlorine is magnesia, also egg white.
12. Chlorine combines very energetically with the metals.
13. It has an intense affinity for hydrogen, which chlorine attracts from any moist body or humid air. Hence, it attracts the water from any Hydripheric person suffering from obesity.
14. When chlorine consumption is great - as in a Marasmic person - that person will be as lean and dry as wood and caustic in wit.
15. Chloroform is a chlorine product, produced through the chemical action of chlorine on alcohol. Chloroform possesses hypnotic and anaesthetic properties, and produces remarkable symptoms in the patient, such as high blood pressure, superficial respiration, fall of temperature, paralysis of the brain, spinal cord, heart and medulla; also depression of the blood vessels.
16. Continued administration of chloroform increases the excretion of sulphate, phosphate and, nitrogen which results in fatty degeneration of heart, liver, kidneys, and cardiac ganglia. Chloroform aids peristalsis and the expulsion of gas from the stomach.

### **iii. FUNCTION OF CHLORINE IN THE HUMAN ORGANISATION.**

1. There are four and a half ounces (0.12Kg.) of chlorine in the average normal man weighing 160lbs. (72Kg.).
2. Organ chlorine consumption, however, is a different process, as this takes place in every person.
3. Chlorine is found as a compound in the body tissues and fluids, always exerting a beneficial effect upon metabolism and health when present in normal quantities.
4. Chlorine increases bodily heat, and the peristaltic movement in the stomach and bowels.
5. It liberates internal heat in the muscles - for chlorine acts strongly upon the muscular system.
6. It excites the sexual system, but does not strengthen it.
7. Chlorine counteracts tetanus, drunkenness and intestinal colic.
8. In the form of hydrochloric acid, Chlorine aids digestion and nutrition.

9. It overpowers intestinal infection, and prevents bacterial fermentation.
10. It prevents cell nutrition by a process called osmosis.
11. Both chlorine and sodium are lowered by a diet of vegetables and greens.
12. For every gram of Potassium eliminated from the body, fifty five to sixty grams of sodium and chlorine are eliminated.
13. A lack of sodium and chlorine results in bloating, gas generation, ill health, and perhaps even death.
14. Chlorine aids urination. The urea is temporarily increased, which is the case with chloride of sodium, phosphate, and sulphate when there is a normal quantity of chlorine in the body.
15. Organic chloride makes the tissues dense and elastic. It knits tissue cells together closely. It excludes water, fat and starch.
16. Chlorine aids absorption of new blood material, and transfers waste products from tissues and blood.
17. It produces elimination of water from the tissues, skin and lungs.
18. Under the influence of chlorine, from six to ten pounds of water may be eliminated in a single day.
19. Were it not for the pressive, contractive, extractive, osmotic pressure, exerted by chlorine on cells, tissues and fluid; the impurity, germs and pus would stay in the body, and the man would soon die in his own sewage.

#### **iv. CONSTITUTIONS IN WHICH CHLORINE IS INHERENTLY**

1. **Excessive:** Nervi-Motive, Marasmic (especially), Medeic.
2. **Deficient:** All lean people, due to excessive chlorine consumption.

#### **v. SYMPTOMS WHEN CHLORINE IS EXCESSIVE.**

1. Hypnotic power, choleric wit, snappish temper, surly moods.
2. Mischievous tendencies, sarcasm, biliousness, ugly streaks.
3. Evil thoughts, aggravating answers, captious humour. Peevishness, quickness to take offence.
4. The person is odd, droll, comico-tragic and able to make a situation appear ludicrous.
5. One minute he talks like an orator, then he is mute as the grave, or as sulky as a criminal.
6. Comical, hilarious, and perhaps good-natured.
7. Pessimism, suspicion, almost self-anaesthetised.
8. Thinks others will poison him, clannish and reserved.
9. Slavish in devotion, dog-like; treacherous, malicious and selfish tendencies; criticises.
10. Loves you one minute, then fights you the next.
11. Has no toleration for society, distrusts friends, jealous.
12. Subject to matrimonial entanglements, hard to live with mate.
13. Sighs for new affinities; his religion is one of fear.
14. Keeps grudges for minor impositions; discordant tendency.
15. Torpid nerves, dull senses, abstract faculties, sad, silent.
16. Lives in the future and fears it; feels like cursing and crying; may go on a spree for a few days, then becomes industrious again.
17. If a woman, she becomes infamous and a drunk fiend.
18. Careless about appearance, conduct and dress.
19. She is listless, indifferent. Dull literary perceptions.
20. Inclined to use stimulants; fears thunderstorms; talks to oneself.
21. Pays no attention to others; becomes a gossip.

#### **vi. SYMPTOMS WHEN CHLORINE IS DEFICIENT.**

1. Extremities appear purple, blue lips, greyish nail roots.
2. Bluish green, or yellow skin, tension in stomach.
3. Facial muscles twitch, the bones ache and the periosteum contracts.
4. Heavy, weak, wooden-like limbs; inflamed taste buds.
5. The transverse colon is distended like a drum.
6. Hip joints sore, painful stitches in liver and spleen.
7. Bloating of abdomen, sediment like red sand in urine.
8. Throat and lung inflammation; tissues refuse albumin.
9. Sore mouth, which feels burned; heavy tongue.

10. Eminences, like little berries, appear at posterior side of the root of the tongue; gums swell; teeth are loose.
11. Deafness; roaring in ears; picks nose; feels dizzy.
12. Digestion of albumin (protein), fat, sweets, and starch is slow.
13. Hair and whiskers fall out; urine and saliva are bloody.
14. Feels better when very hungry; has suffocating attacks.
15. Starves, and preaches starvation, until very thin.
16. Worries, feels dull, anxious, mourns, mutters, snores in sleep.
17. Frontal headache that travels to the occiput.
18. Has sparkles, flashes, flickers before the eyes.
19. Motion produces dizziness; chilled here, overheated elsewhere.
20. Likes acid foods and drinks, itching in perineal region.
21. Early morning urine specific gravity falls below 1018.
22. Teeth ache even if sound, blood pressure low.
23. One leg shorter than another, rheumatic pain in muscles.
24. Distress of heart, burning in kidneys.
25. Skin exfoliates and flakes fall; heat waves travel over body.
26. Tip of the Nose is shiny; pus, mucous and phlegm forms.

#### **vii. HOW TO REDUCE CHLORINE IN THE BODY.**

1. **Foods:** Eat foods rich in carbon, hydrogen, nitrogen, oxygen.
2. **Climate:** Go to some other warm climate, or take sweat baths.
3. **Mental Exercise:** Cultivate sarcasm and caustic wit.
4. **Physical Exercise:** Work hard until the skin perspires freely.

#### **viii. HOW TO INCREASE CHLORINE IN THE BODY.**

1. **Foods:** Eat foods rich in chlorine.  
Omit foods rich in carbon, hydrogen, nitrogen, and oxygen.
2. **Climate:** Live in a congenial climate.
3. **Mental Exercise:** Purely sentimental.
4. **Physical Exercise:** Pleasing and easy exercises only.

#### **ix. PEOPLE WHO REQUIRE CHLORINE FOODS**

1. **In abundance:** Desmogenic and Atrophic, on account of excessive chlorine consumption.  
Neurogenic, Carboferic, Hydripheric, Nitropheric and Pallinomic, because of the tendency to auto-intoxication.  
Calciferic and Isogenic need sodium and chlorine to prevent calcific hardening; but too much chlorine food will eventually develop into calcific hardening.  
Pathetic, Lipopheric, and Pargenic should eat chlorine food, but only to a moderate extent.
2. **Very little:** Oxypheric require only small amounts.  
Marasmic should change diet frequently to avoid taking up too much chlorine, as chlorine is bad for them.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF CHLORINE FOODS ON**

1. **Health:** Detrimental.
2. **Disposition:** Develops a cynical mind, caustic wit, and a pessimistic disposition.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF CHLORINE FOODS ON**

1. **Health:** Results in disease.
2. **Disposition:** Feels hopeless, gloomy, self-involved, anxious.

#### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM CHLORINE IS EXCESSIVE.**

1. Increase of the output of carbon, hydrogen, nitrogen, oxygen, phosphorus, sulphur, fats and sugars.
2. Emaciation prevents normal growth in children, unbalances digestion.
3. It causes ulceration, depression of motor power, muscular force; loss of vigour in tendons and in many other solid structures.
4. Neurasthenia that is hard to cure, curvature of limbs, asthenia of the motor equipment, self-hypnotisation, vasomotor disturbances, bowel trouble, periodic collapses, erosions that resemble cancer, atrophica, narcotic neurosis, disorders of the generative system, mania, fears, morphine habits, bluish haemorrhoids that are as sensitive as a boil, diarrhoea with constipation, paralysis of some of the muscles that results in involuntary stools, ailments that are pronounced in the right side of the body.
5. Internal heat and external coldness; heart trouble, eruptions around the mouth, weak respiration, low temperature, cold slow metabolism, erratic functions, high pitched voice, fainting spells, inability to absorb and hold water, impotence, food fermentation, vomiting, hyperchlorhydria.

#### **xiii. CHEMICALS IN FOOD THAT PEOPLE WITH EXCESS CHLORINE SHOULD**

1. **Eat:** Carbon, hydrogen, nitrogen, oxygen; or foods rich in the organic elements.
2. **Avoid:** Foods rich in chlorine.

#### **xiv. HELPFUL HINTS.**

1. The following conditions use up the chlorine too rapidly:  
Heavy work in the sunshine, or in dry heat.  
Excessive water drinking.  
A vegetable diet.  
Cold climate: strong winds.  
Scurvy.
2. Sodium works in cartilage. Without this compound, no cartilage could be made.
3. Chlorine and sodium combined help internal lavage and the distribution of water throughout the system. There can be no equilibrium of moisture and no exchange in the various fluids of the watery element, unless there is a normal quantity of sodium and chlorine salts at work in the tissues.
4. A lack of sodium and chlorine salts results in the precipitation of certain other important salts, which leads to lowered tissue metabolism of the albumin. This may result in albuminuria, or dropsy and perhaps death.
5. 200 grams of sodium chloride, or more, are found in the various tissues and fluids of a well-proportioned man. This chlorine compound regulates the phenomena of diffusion, or it favours the transportation of old and new material.
6. Water is not absorbed into the blood, if there is a lack of sodium chloride. A normal amount of sodium chloride in the blood plasma enables the red corpuscles to maintain their shape and structure, by maintaining their water equilibrium, or the moisture that must enter into their composition.
7. A lack of sodium chloride in the system weakens the red blood corpuscles.

#### **xv. PRINCIPAL CHLORINE FOODS (ALPHABETICALLY ARRANGED).**

1. The best chlorine containing foods are those named under the heading below "BEST CHLORINE FOODS", the next best are those named under the heading "SECOND BEST CHLORINE FOODS", etc.
2. The approximate quantity of Ash content of each food is indicated in the column headed "ASH CONTENT".
3. The quantity of chlorine contained in each food named below is indicated under the heading "CHLORINE"; the figures representing the percentage of the ASH CONTENT, is chlorine.

4. Vitamins are damaged by heat at or above 130 degrees (54.4 degrees C.). The words "YES" and "NO" in the column headed "VITAMINS" indicate whether there are vitamins in that part of the food that we generally eat (including seeds), when the food is in its raw stage, and when it is in a cooked or otherwise heated state.
5. All foods named here are organic, (consequently entirely wholesome); except salt which is inorganic; but wholesome to a limited extent, and necessary, and except dried beef, ham, fish and Roquefort cheese; which may have inorganic components, due to salts added thereto.

6.

<b>BEST CHLORINE FOODS</b>	<b>ASH CONTENT</b>	<b>CHLORINE</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Cheese, goat milk.	Very High	30.41	Yes	Raw
Cheese, whey goat milk.	Very High	32.63	No	Raw
Cheese, Swiss goat milk.	Very High	30.41	Yes	Raw
Milk, goat.	Very High	31.00	Yes	Raw
Salt. About 40% sodium.	Excessively High	60.00	Raw/cooked	Raw

7.

<b>SECOND BEST CHLORINE FOODS</b>	<b>ASH CONTENT</b>	<b>CHLORINE</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Beef, dried	Very High	6.00	Yes	Raw
Blood ox.	Very High	34.40	Yes	Raw
Cheese, Roquefort	High	23.10	Yes	Raw
Sheep's milk.				
Ham.	Very High	4-13%	Destroyed	Broiled

8.

<b>THIRD BEST CHLORINE FOODS</b>	<b>ASH CONTENT</b>	<b>CHLORINE</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Cheese, cow's milk.	Low	14 - 13%	Yes	Raw
Coconut.	Medium	13.40	Yes	Raw
Fish, salty all kinds.	High	11 - 19%	No	Broiled
Milk cow's.	Low	14.28	Yes	Raw

9.

<b>FOURTH BEST CHLORINE FOODS</b>	<b>ASH CONTENT</b>	<b>CHLORINE</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Asparagus.	Low	5.30	Destroyed	Cooked
Cabbage, red.	Low	13.65	In seeds	Raw
Cabbage, white.	High	7.60	In seeds	Raw
Carrots.	Medium	4.60	No	Raw
Cucumbers.	Low	6.60	In seeds	Raw
Egg Yolk, raw.	High	9.00	Yes	Raw
Lentils.	Very High	4.63	Destroyed	Cooked
Lettuce.	Medium	7.65	No	Raw
Meat juice, raw.	Medium	36.00	Yes	Raw
Radishes.	Low	9.15	In seeds	Raw
Spinach.	Very High	6.30	No	Cook 3 minutes.
Flour, super white.	Very Low	None	No	Heated

## **6.viii. CALCIUM.**

### **i. CALCIUM IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Calcium is found in all soils, almost without exception.
2. Also in the ash of plants, in mineral waters, in water generally, especially in hard water.
3. Calcium is present in chalk, stucco and other lime compounds.
4. It may be obtained by passing a powerful electric current through fused chloride of calcium upon which the element will separate out in minute globules.

### **ii. CALCIUM, ITS NATURE AND CHARACTERISTICS.**

1. It is a yellowish-white mineral, it can be rolled into sheets, and hammered into leaves.
2. It is intermediate between lead and gold in hardness.
3. At ordinary temperature, calcium slowly tarnishes by oxygen; and, when placed in contact with water, it rapidly decomposes in the water, forming lime calcium oxide and the hydrogen escapes.
4. To be kept bright, calcium must be kept under the surface of petroleum ether.
5. Calcium melts at a red heat and burns with as drizzling white light accompanied by scintillations.
6. Calcium is usually associated with sulphur, silicon, and carbon, indicating a strong affinity between itself and those elements. It has also a strong affinity for oxygen.
7. As a carbonate, calcium forms marble, limestone, and chalk. Lime is nothing but a calcium oxide.
8. It is one and one-half times as heavy as water. It is ductile, oxidisable, malleable, soluble in water to some extent and highly soluble in dilute acid.
9. Some of the more important calcium compounds are the oxide, hydroxide, fluoride, chloride, sulphate, nitrate, carbonate, phosphate, and silicate.
10. Limestone, when pure, contains fifty-seven parts of lime and forty-three parts of carbonic acid. Limestone however is not pure, for aluminium, magnesium, silicon, iron, and other elements are generally present.
11. The presence of carbonic acid enables limestone to release carbon dioxide, and gives the stone its power of effervescence, as seen in soda fountains.
12. Lime is the tiller of the soil, the soil fertiliser. It decomposes vegetable matter, and compels the liberation of plant vitality. It sets free the soil alkalis for plant growth.
13. Lime is active in neutralising oxalic acid, a poison that is a metabolite of nutritional plant processes. In accomplishing this function, lime becomes a carbonate.
14. Hens lay more and better eggs with harder shells, when they are fed ground bones, cracked oyster shells, and other feed rich in calcium.
15. Lime is used in many arts and industries, as, for instance leather, soap, washing soda, metallurgy, and neutralisation of acids.
16. It is used extensively, also in mortar, cement, etc.
17. Lime is valuable as an antacid to destroy inert, noxious, vegetable matter, etc. It is used to break up heavy clay soils for fertilising purposes.

### **iii. FUNCTIONS OF CALCIUM IN THE HUMAN ORGANISATION.**

1. Calcium travels from the rock to human blood and bone. Calcium is derived from decomposed rocks, which is converted into soil; then the soil converts the calcium into plants; plants transform it into seeds, fruits and vegetables; man, by the process of digestion, transforms and converts the calcium in seeds, fruits and vegetables into human blood and bone. Thus calcium is converted into libraries of philosophy, science, inventions and poetry, by the marvelous processes of nature and man.

2. From 4 to 5lbs. (1.75Kg. to 2.0Kg.) of calcium are present in the human body. Nichols says that 5lbs. (2.3Kg.) of phosphate of lime, 1lb. (0.45Kg.) of carbonate of lime and 3 ounces (0.09Kg.) of calcium fluoride are found in the body of a man weighing 160lbs. (72Kg.).
3. Calcium combines with silicon, magnesium, phosphorus, fluorine and gelatin, in the structures of bones and teeth. Berzelius, the great chemist, gives us the following analysis of human bone:

Gelatin	32.17
Fluoride of Calcium	2.00
Blood vessels	1.13
Phosphate of Magnesium	1.16
Phosphate of Lime	51.04
Chloride of Sodium	1.20
Carbonate of Lime	11.30

4. Bones are the most enduring part of man, nearly as strong as cast steel and twice as strong as the wood of the sturdy oak.
5. Without calcium a man could not move, act, walk, or stand up. He would collapse like an empty bag, and be as shapeless as a sponge. When Professor Rice fed chicken a calcium free diet, the chickens were eventually not able to stand on their feet. Their legs were twisted almost into knots.
6. When calcium phosphate, carbonate, silicate, and other bone salts are lacking; the bones and teeth suffer, rickets and other bone diseases set in.
7. Calcium carbonate is found in the ear stones (Otoliths).
8. Calcium salts are important in the coagulation of milk. Precipitate the calcium from the milk, and cheese making is impossible.
9. Calcium lactate is of value in serious operations, by causing the blood to coagulate at the surface of an injury, thus preventing a person from bleeding to death. A man whose system lacks calcium easily bleeds to death from a cut, an operation or from a tooth extraction.
10. An insufficient calcium supply results in ugly scars, from wounds, cuts and operations.
11. Were it not for calcium, the walls of the arteries and veins would be so weak, that haemorrhages would occur. Indeed, tendencies to all sorts of haemorrhages are the result of a lack of calcium and iron.
12. Calcium affects the heartbeat. If the heart of the animal is immersed in a solution of lime, the pulsations are increased and continue long after the heart has been dissected from the body.
13. Calcium is concerned with almost all muscular movements.
14. Calcium is concerned with vital processes, for the cells of the body do not thrive long without calcium. Calcium increases the life of the cell, and enhances its properties. Bony people are the most long-lived people.
15. Free calcium in the body fluids saves its possessor from the ravages of many germ species and dangerous diseases.
16. Calcium prevents oxalic acid poisoning. So necessary are calcium salts to the system that the body will tear down its own structures in order to obtain calcium material for the maintenance and integrity of the internal secretions. When the calcium salts have been extracted from a tooth, the substructure is undermined, the enamel breaks and bacteria do the rest.
17. Sugar hastens decay of teeth, not that sugar affects teeth directly, but sugar inhibits the availability of calcium. Ordinary water takes up one part of calcium salts in each one thousand parts of water. Add plenty of sugar to the water, and the water takes up about forty times as much calcium as it otherwise would.
18. Children, whose diet is deficient in calcium, have trouble with bones, tendons, hipbones, feet, arteries, skull bones, sutures, teeth and other solid structures. They suffer from scurvy, softening of the bones, rickets, catarrh and tuberculosis.
19. One and a half grams of calcium salts are needed a day. To obtain this a man would have to eat about eight loaves of white bread a day. One quart of milk or less would furnish the required quantity of calcium.
20. Calcium phosphate is found in bone, also in the blood corpuscles to the extent of 0.114 parts a thousand; also in cartilage, fluids and certain tissue. Were it not for the acid phosphate of sodium, calcium phosphate



could not be held in solution in the urine, but would harden and form kidney stones.

21. Calcium broth, or milk cloths, are excellent as a dressing for indolent ulcers, chronic eczema, also for swellings, injuries, congestion, inflammation, contusions.
22. Glycerophosphoric acid exists in nerve matter. Foods containing such salts help neurasthenia, phosphaturia, goitre, convalescence, exhausting fevers and nervousness.
23. Calcium has inherent latency, but possesses potentiality. Like the winter apple, the calcium child matures slowly.
24. Under the influence of calcium, the brain gives up its knowledge; transmission is greater; poetry grander; science more profound; genius more brilliant; and concentration more efficient. When a person has calcium in abundance in the system, he needs no memory courses, and when he lacks calcium, memory courses are useless.
25. Calcium diet, or a milk diet, is a peril in old age, resulting in hardening, arteriosclerosis, and other ailments.
26. Defective blood coagulability calls for a rich calcium diet.

### **iii. CONSTITUTIONS IN WHICH CALCIUM IS INHERENTLY**

1. **Excessive:** Nervi-Motive, Calciferic, some Isogenic people. Atrophic (organically but not functionally), Medaic in isolated instances. Bony people - often when they are old.
2. **Deficient:** Neurogenic, Pathetic and Carboferic often. Hydripheric Lipopheric, Nitropheric, also the Atrophic because calcium is locked up in tubercles, or because of pus formation.

### **iv. SYMPTOMS WHEN CALCIUM IS EXCESSIVE.**

1. Calcific ailments are chronic ailments involving stiffness of one form or another, but also epilepsy. Calcific ailments are often preceded by many years of excessive calcium, that manifests itself as the stubbornness, contrariness and fixedness engendered by this element. Those with excessive calcium are stern, angular, obsessed with science, fixed of habits, contradictory towards others, with a disposition like a mule, fearless, with strong dislikes, great persistence, with a great love of hard work - like Edison, and vengefulness. Those with excess calcium in their system invite censure of the public because of their modes, styles, manners, opinions, conduct, deeds, movements and systems.

### **v. SYMPTOMS WHEN CALCIUM IS DEFICIENT**

1. Laborious thinking, haemorrhages, sensitivity to moisture, listlessness, trembling, hyperventilation, boredom, daydreaming, deformities, afternoon headache, imperforations, dizziness in open air, sighing, sensitiveness to atmospheric pressure and brooding, displacements, fear, staggering on getting up, poor ambition, perspiring in the dark, lack of confidence, heaviness of head, poor willpower, chilblains.
2. Also early sleepiness, sleeplessness after midnight, complaining, scar formation, distrust, uneven limb length, pessimism, icy sensations in the spine, grieves about trivia, cysts, sour body odour, catarrh, defective blood, cowardice, obesity, slowness in walking, mental aggravation, discharges, slow recuperation, swellings, sores do not heal, rotten tissue, slimy salivation, pus formation, swelling of inguinal glands, suppuration, lack of blood coagulation, lameness of flexors, venous dilation, incoherent speech, soft bones, stinging pains in genitals, sluggish movement of red blood corpuscles.
3. Calcium generates courage and resolution, is the anchor of hope and provides conviction.

### **vii. HOW TO REDUCE CALCIUM IN THE BODY.**

1. **Foods:** Eat starch, sugar, and sodium foods.

- Omit foods rich in calcium.
2. **Climate:** Live in a low altitude in the valley, in a warm climate.
  3. **Mental Exercise:** Live in the emotions, or in the heart part of the mind.
  4. **Physical Exercise:** Sleep much, let others do the work; be lazy.

#### **viii. HOW TO INCREASE CALCIUM IN THE BODY.**

1. **Foods:** Eat foods rich in calcium. Omit starch, sugar, and sodium foods.
2. **Climate:** Live in a mountainous country, at high elevation and in cold air.
3. **Mental Exercise:** Study science; become very critical, use willpower, concentrate.
4. **Physical Exercise:** Work long hours, and very hard at all sorts of laborious pursuits. Carry heavy loads, allow yourself no peace.

#### **ix. PEOPLE WHO REQUIRE CALCIUM FOODS**

1. **In abundance:** Neurogenic, Pathetic, Carboferic, Hydripheric, Lipopheric, Nitropheric.  
All pregnant and lactating mothers.  
All growing children.  
All obese and small-boned and all tubercular people.
2. **Very little:** Nervi-motive. Calciferic. Some Isogenic people.  
All gouty and stiff people.  
All old, lean people.  
Occasionally some Medecic people.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF CALCIUM FOODS ON**

1. **Health:** Detrimental to health.
2. **Disposition:** Gloomy, pessimistic, cynical, critical, materialistic, miserable.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF CALCIUM FOODS ON**

1. **Health:** Blood, bone, and lung problems.
2. **Disposition:** Timid, fearful, complaining, indolent.

#### **xii. DISEASE TENDENCIES OF CALCIUM PEOPLE.**

1. Acid, calcific ailments, calcification, concretions, lithemia, gravel, calcareous deposits, phosphate stones, urate deposits, gout, gouty kidney, difficult urination, contraction of cords, nodes, hardening of arteries, bone tumour, chondroma, ossification, swelling of joints, cranial growths, daytime sleepiness, low oxidation, dull hearing, cataract, epilepsy, apoplexy, brain shrinkage, emaciation, indigestion, flatus, cancer, hardened semen, synovitis, urethritis, thrombosis, sarcoma.

#### **xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS CALCIUM SHOULD**

1. **Eat:** Carbohydrates, fluorine and sodium.
2. **Avoid:** Calcium containing foods.

#### **xiv. HELPFUL HINTS.**

1. Sunshine lessens the amount of carbonic acid in the atmosphere; hence, sunlight has a good effect on the calcium hunger patient; but strong artificial light has a bad effect upon his eyes and eyeballs.
2. A calcium hunger patient is sensitive to atmospheric changes, changes in the electrical tension of the atmosphere, to cloudy weather, cold night air. His chest is heavy in moist weather.
3. He retires early, and arises early. His bodily heat decreases toward evening, but increases towards the morning - the opposite of the Exesthesic.

4. He eats more than he can digest, his food passes through him like straw through a thrashing machine.
5. He is fond of animal food, potatoes, fat gravy, salt, stimulants, condiments, and strong drinks.
6. He needs a warm diet. His circulation is sluggish; he is a man who continually makes pus.
7. He has strong amatory cravings, but a weak sexuality.
8. The child that suffers from calcium hunger is fleshy as an infant. His bones are small, thin and soft.
9. Calcium is an excellent deodoriser, disinfectant, purification agent, and vitaliser.
10. A diet high in calcium has a beneficial effect upon ulcers, infection, anthrax, fistulas, eczema, psoriasis, pruritis, lichen, ichthyosis and erysipelas.

**xv. WHEN A CALCIUM DIET IS NEEDED.**

1. When the head feels full; when there is a one sided headache; when the head is too large in proportion to the body; when dread creeps over a patient as night approaches; when there is anxiety concerning ones condition; when there is cardiac atrial hypertrophy; when the inner brain throbs; when heavy lifting produces discomfort; when the patient requires constant reassurance; when the cranial sutures fail to grow.
2. When bones are small and soft; when frothy saliva runs from the mouth; when teeth decay; when there is obesity associated with cystic goitre, and perhaps dropsy. When consumption germs thrive in lung tissue; when polyps and growths form; when glands swell and suppurate; when lymph glands are scrofulous; when fractures fail to heal.
3. When the face is bloated, wrinkled, old; when the body is sore; when the face and neck perspire; when the ribs bend; bones arch, shafts thicken or swell; when rickets prevail; when teething is slow.
4. When there is a singing murmur in the ears like the roar of a water mill, or the ringing of bells, or the wind of a forest; when the patient has a musty odour.
5. When one limb is shorter than the other, or grows crooked; when the tongue is sore at the tip; when there is drooling at the mouth; when there is a strong desire for salt.
6. When the patient bleeds easily; when the ears ache and run; when the complexion is pasty; when there is crawling sensation in the arms; when moisture aggravates ailments.
7. When the uterus, or the genitals are sore or sting; when the throat is raw or whistling; when pus forms somewhere and calls for so much chlorine that it cannot be supplied, and there is a salty taste, later a sweet taste, and still later a bloody taste.
8. When abscesses form; when knees swell; when there are night sweats and clammy perspiration; when pressure causes numbness; when scars ache; when a person is sensitive to jars; when children are late in walking.
9. When the eyeballs are sore, tip of nose cold, teeth sensitive to cold wind; when there is a tendency to bleeding; when the groin aches; when limbs tire easily.
10. When breathing is short and laboured; when the nape of the neck, or the pit of the throat, pulsate; when blood vessels echo the heartbeat.
11. When the spine curves; when bones seem bruised; when the chest is hollow at the sides; when the nose is more or less stuffed up; when bones ache; perhaps cold in certain spots; when the chest is tight.
12. When the bronchi are full of mucus; when the clavicle and sternum are tender; when the nail roots are swollen:
13. AT ALL SUCH TIMES A CALCIUM DIET IS IMPERATIVE.

**xvi. PRINCIPAL CALCIUM FOODS (ALPHABETICALLY ARRANGED).**

1. All foods named herein are organic except citrate of magnesia, soda fountain drinks and water. Natural soft water, rainwater, and distilled water are alike in that they do not contain calcium. Limewater contains abundant calcium. The harder the water, the more calcium it contains. Cranberries form much hippuric acid.

2. Vitamins are killed by heat. Pure water contains no vitamins. Impure water contains vitamins in the form of disease germs.

3.

<b>FOURTH BEST CALCIUM FOODS</b>	<b>ASH CONTENT</b>	<b>CALCIUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Bran, wheat.	High	18.10	Destroyed	Cooked/baked
Cabbage.	High	21.40	In seeds	Raw
Cabbage, Chinese.	High	21.40	In seeds	Raw
Cheese, cottage.	Low	21.65	Yes	Raw
Cheese, cream (cow)	Low	21.65	Yes	Raw
Cheese, Mare.	Low	29.65	Yes	Raw
Citron.	High	Very High	In seed	Raw/juice
Halibut.	High	Very High	No	Raw/juice
Kumis.	High	Very High	Yes	Raw
Lemons.	Low	30	In seeds	Raw
Limes.	Low	30	In seeds	Raw
Milk, cond., (cow).	Low	22.05	Destroyed	Raw
Milk, fresh (cow).	Low	22.05	Yes	Raw
Milk, fresh (mare).	Low	29.65	Yes	Raw
Onions.	Low	22.90	In seeds	Raw
Oranges.	Medium	21.60	In seeds	Raw
Rhubarb.	Medium	Very High	Destroyed	Cooked
Soda fountain Drinks.	Varies	High	No	Raw
Sorrel	High	High	Destroyed	Cooked
Sauerkraut.	Very High	21.40	In seeds	Raw
Spinach.	Very High	11.90	No	Cooked 3 mins.
Water, hard.	High	Very High	No	Fresh

4.

<b>SECOND BEST CALCIUM FOODS</b>	<b>ASH CONTENT</b>	<b>CALCIUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Beans, lima.	Very High	5.00	Destroyed	Cooked
Cranberries.	Medium	High	In seeds	Raw
Egg yolk.	High	10.90	Yes	Raw
Gooseberries.	Low	12.20	In seeds	Raw
Grapes.	Low	10.80	In seeds	Raw
Lentils.	Very High	6.30	Destroyed	Cooked
Lettuce.	Medium	14.70	No	Raw
Milk, human.	Low	16.70	Yes	Raw
Peas, dried.	Very High	4.80	Destroyed	Cooked
Pomocitron.	Low	High	In seeds	Raw
Prunes.	Low	10.10	In stones	Cooked/raw
Walnut.	Very Low	8.60	Yes	Raw

5.

<b>THIRD BEST CALCIUM FOODS</b>	<b>ASH CONTENT</b>	<b>CALCIUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Asparagus.	Low	10.85	Destroyed	Cooked
Buttermilk.	Low	High	Yes	Raw
Cauliflower.	Low	5.60	Destroyed	Cooked
Cheese, goat	Very High	5.99	Yes	Raw
Cheese, sheep.	Very High	5.99	Yes	Raw
Citrate, magnesia	?	Very High	No	Cold
Cucumbers.	Low	7.30	In seeds	Raw
Currants	Medium	7.30	In seeds	Raw
Milk, goat.	Very High	5.99	Yes	Raw
Milk, sheep.	Very High	5.99	Yes	Raw
Peaches.	Very Low	8.00	In stones	Cook/raw
Radishes.	Low	7.30	In seeds	Raw
Shredded wheat biscuits.	High	2.60	Perhaps	Raw

## **6.ix. POTASSIUM.**

### **i. POTASSIUM IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Potassium is found in rocks, soils, plants, most foods, in explosives, in the tissue of animals and human beings.
2. Potash is potassium carbonate. When potash is purified it is called pearl ash. Potash is much used in glass and soap industries. Potassium hydrate (caustic potash) is so corrosive that it eats into animal and plant tissue. Being strongly alkaline, it restores reddened litmus paper to blue. It has great attraction for humidity, and attracts it from the air. It is fusible at three hundred degrees. Caustic potash counteracts bites of dogs and venomous snakes, destroys fungous growths, obliterates warts, and is used in chemistry, in manufacturing industries, in the making of soft soaps, and for other purposes. Potassium chloride, known also as kali muriaticum, is obtained from potassium carrying metals, marine plants, brine water, and seawater, and is found in certain foods. Potassium bicarbonate is used much in effervescent drinks. Potassium sulphate is used in manure. Potassium chloride is used in calico printing, and in the manufacture of matches. Potassium cyanide is used in photography.
3. By studying the growth of plants we learn that, in the absence of potassium, crops are backward, and fruit does not develop. Potassium promotes the development of stems, flowers and fruit, and the maturing of the plant. Its abundant presence in the soil protects plants from a great many plant diseases and germ species.

### **ii. POTASSIUM, ITS NATURE AND CHARACTERISTICS.**

1. Potassium has the symbol "K" meaning - Kalium. It is a bluish-white and silvery metal, and so light that it floats like a cork. At thirty-two degrees (0 degrees C.) it is hard and brittle; at fifty degrees (10 degrees C.) it is malleable; at one hundred and fifty degrees (65.5 degrees C.) it becomes a liquid. Its affinity for oxygen is so great, that when it is exposed to oxygen, it becomes covered with a film of oxide. It conducts electricity the same as other common metals. It is alkaline in properties, a powerful neutralising agent, an excellent preservative, a cooling and antiseptic element, and also very poisonous. It has high explosive properties, and is used in the manufacture of gunpowder.
2. Potassium assimilation is greater in some plants than in others; Potassium plants are strongly charged with potassium. The birch is a potash plant. The wood of the birch contains the best potash known. Birch leaves have a bitter taste, indicating a liberal amount of potash. All foods that contain potash have a bitter taste. Dried olives are especially bitter, as are many vegetables, greens, and salads. A pound of potatoes contains about one-fourth of an ounce (7 grams) of potash. Those potash salts are found in the skin and at the surface of the potato. Potassium is the enemy of scurvy. This disease is unknown among people who eat baked potatoes, yellow corn, and other potassium foods. The potassium and sodium in grapes, cucumbers, potatoes and other plant foods, unite with tartaric acid contained in them and form a sodium-potassium tartrate, which has highly laxative properties.
3. It has been found that potash is intimately involved with the production of carbohydrates (sugars and starches) in plants.

### **iii. FUNCTIONS OF POTASSIUM IN THE HUMAN ORGANISATION.**

1. Nine ounces (0.25Kg.) of Potassium has been found in the human body. During life, this element is constantly utilised in the tissues for one purpose or another, assimilated in the food and excreted in the urine and faeces.
2. Potassium is present in the tissues of all people, but it is more active in the functions of some people than in others. When there is considerable activity of potassium in the tissues, there is also a greater amount of oxygen present.

This produces greater life and growth in the tissues, greater blood alkalinity, a stronger system and a more efficient muscular system; heat generation in the muscles is greater, muscular power is increased, blood fibrin is manufactured in greater quantities, which provides greater healing capacity and power of resistance. In which case therefore, he can more easily assimilate albumin, casein and fibrin; he is stronger and more alive; his blood has greater repairing and constructive power; his brain and muscles are better toned; he has more executive power, and is more of a force in the world. There is a higher degree of health, greater harmony of temperament and better functioning. Hydrogen, Carbon, Nitrogen, Oxygen and the organo-metallic salts will enter the system in normal proportions, when Potassium is present in normal quantities.

3. A man has incredible recuperative power, when potassium is present in the tissues; his blood is more alkaline; oxidation is more perfect; injuries, cuts and bruises heal quickly, perhaps in a few hours. In youth, these elements enter the blood in larger quantities. This is why army surgeons are successful in operating upon young soldiers. The surgeon takes the credit, but in reality the curative power of the blood of the young man is the explanation of seemingly marvelous cures. If you doubt this, watch the result when surgeons operate on an old man, in whom recuperative power is low, and vitality is on the ebb - these men die easily as the result of the operation.
4. Where potassium is present in normal quantities, there is an abundance of fibrinogen and serum albumin in the blood, and oxygen in the tissues.
5. Where potassium is highly represented in the tissues, the individual has a high standard of organic and vegetative life, perfection and health. Here, albumin, which is highly complex in its molecular structure, and varies widely within certain limits, has reached its highest evolution of vegetative life. Albumin is mainly a carbon substance but contains also oxygen, nitrogen, hydrogen, and sulphur: To be exact, there are fifty-two parts of carbon, twenty-two parts of oxygen, sixteen parts of nitrogen, seven parts of hydrogen and three parts of sulphur in a scale of one hundred parts. When potassium is active in the proteins of the muscles, muscle life is at its height.
6. When potassium is present in normal quantities, the following are very active:

Haematogenesis	Arterial and venous circulation
Respiration	Fibrin production
Elimination	Power of recuperation
Muscular life	Functions of generative system
Heart action	Muscular coordination
Internal oxidation	Oxidation of the blood
Thermogenesis	Rest processes of nervous system
Distribution	Hair growth and hair life
Secretion	Equalisation of heat
Brain life	Equilibration
Cell life	Electrovital phenomena
Cell processes	Alkalisiation of blood
Nerve function	Nerve conductivity
Skin functioning	Albuminogenesis

7. The potassium man is very seldom bald-headed. He can be dragged, pulled, jerked and twisted about by the hair without it coming out. No other type of man has such porosity, or hair growth. The pilomotor nerves are strong and active.
8. Potassium salts are present in the excreta, in milk, perspiration, tears, gastric juice, in many of the acids of the body, in muscles and elsewhere, but Potassium is eliminated mainly through the kidneys.
9. Intestinal fermentation takes place when there is a lack of potassium in the system. Potassium and sodium have everything to do with saponification. In the process of intestinal fermentation, dextrose and maltose are converted into lactic acid, which is converted into butyric acid, carbon dioxide and hydrogen. Fats are split up into glycerol and fatty acids. The proteins (amino acids) are broken down by the action of the pancreatic juice, and produce leucine and tryptophan.

These are reduced into simpler products. Leucine yields valeric acid, ammonia, and carbon dioxide. Tryptophan yields indole, which gives rise to the indican found in the urine. Skatole is a derivative of the proteins. Germs in the intestines, when acting on skatole and indole, give the faeces their characteristic odour. If it were not for the potassium and other salts that favour intestinal evacuation and disinfection, some of these poisons would soon undermine health.

10. Potassium chloride preponderates in muscular and nerve tissues, and in the red corpuscles of the blood. The plasma in those tissues contains but a small quantity of these salts, but a high quantity of sodium chloride.
11. Those potassium compounds increase the alkalinity of blood and lymph. All tissue cells must be bathed in these salts, else cell activity is decreased, for these salts increase heart action, maintain arterial pressure, and improve circulatory vigour.
12. Muscle contains 73.5% of water; 18.02% of protein, including the sarcolemma, the connective tissues and the pigments; 1.99% of gelatin; 2.27% of fat; 0.22% of other extractives; 3.12% of inorganic salts.
13. Muscle contains a muscle iron, (cytochrome) and this ferric pigment increases internal respiration and internal oxidation, which is spectroscopically proven by the fact that its bands of absorption undergo oxidation and reduction changes.
14. The main nitrogen extractives in muscle are: urea, creatine, creatinine, uric acid, xanthine, carnosine; and the non-Nitrogen containing extractives are glycogen, lactic acid, fat, inositol, dextrose.
15. When there is a lack of potassium salts in the tissues, sugars and starches are not assimilated, not even tolerated, by the tissues. This leads to diabetes, dropsy and other ailments.
16. When food salts of potassium are present in the body, the sensations of pain is not so severe, but when food salts of potassium are lacking, pain sensations become uncontrollable.
17. Nerve tissue demands a normal alkaline (not acid) medium.
18. Cancer and snakebites are less deadly when potassium salts are in abundance. A potassium diet prevents ulceration, equalises certain excretions, such as the urinary, uterine, nasal, laryngeal and perspiratory secretions, and helps to remove excess of water from the body. It helps to prevent gangrene, skin ailments, ingrown toenails, and also foot sweat, due to the presence of the bacillus factidus.
19. Potassium is a laxative and promotes sleep.

#### **vi. CONSTITUTIONS IN WHICH POTASSIUM IS INHERENTLY**

1. **Excessive:** Myogenic, seldom in any other constitution; but it is often excessive in animals.
2. **Deficient:** Lacking in almost all types of people except Myogenic.

#### **v. SYMPTOMS WHEN POTASSIUM IS EXCESSIVE.**

1. Great animation, impulsiveness, a leaning towards Bacchanal religion, impatience, loves motion, has a highly developed perception of gravity, periodicity, sleepiness, monkey-like in speed and control of feet and fingers, faintness, drowsiness, dislikes work, loves wild career and rough life, pulse rate increased, bladder overstimulated, tendency to act by spells and spurts, kidneys overstimulated, itinerant in nature, ability to see well in the dark, nomadic in disposition, cosmopolitan in views, some brain areas overcharged with blood, stubborn when opposed, violent when angered, gait is unsteady, sulky when corrected, equilibrium of movement and dexterity is disturbed, nervous when exhausted, tendency to hobbies, pulse unfavorably affected, does not know what he is doing or saying, does not know how to defend himself, diminished reflex activity, heart unfavorably affected, circulation unfavorably affected.

#### **vi. SYMPTOMS WHEN POTASSIUM IS DEFICIENT.**

1. Low tissue oxidation, digestion and assimilation of: fibrin, albumin, sugar, gelatin, become increasingly difficult, weakness in heart, falling tendencies, periodic headaches, rapidly moving pains, dropsical ankles, dry throat, perspiration, dry skin, distress in the epigastrium, atrophy of muscles, inward fear, sunken, hot, red lustreless eyes (eyes feel as though sand is in them, crawling in feet, itchy skin, scabs, stitching pains in left ear, eczema on legs, painful pustules, greenish, ropy, sputum and discharges, angry ulcers, sensitive corns, pain in occiput, parched throat, crawling under roots of teeth, pain in side, restlessness at night, nosebleed, in a hurry to take off shoes etc., jerking in limbs, crampy pains in the heart, gnawing sensations, organs feel as though suspended, pyorrhoea, constriction in the urethra, frothy saliva, tingling in the rectum, tendency to blisters, distension of the stomach, itching around scars, desires cold water and sour food, defective peristalsis, one ear red the other pale, throbbing over the eyes, bitter taste in the mouth, nausea from excitement, crawling under the skin, tickling in the nose.

#### **vii. HOW TO REDUCE POTASSIUM IN THE BODY.**

1. **Foods:** Eat foods rich in chlorine and sodium.  
Omit foods rich in potassium.
2. **Climate:** Live in a warm climate.
3. **Mental exercise:** Great passion and temper reduce potassium.
4. **Physical exercise:** Do heavy physical work.

#### **viii. HOW TO INCREASE POTASSIUM IN THE BODY.**

1. **Foods:** Eat foods rich in potassium.  
Omit foods rich in chlorine and sodium.
2. **Climate:** Live in a cold climate.
3. **Mental exercise:** Avoid temper and passion.
4. **Physical exercise:** Do pleasing, light and vigorous work.

#### **ix. PEOPLE WHO REQUIRE POTASSIUM FOODS**

1. **In abundance:** All people, except Myogenic.
2. **Very little:** Myogenic.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF POTASSIUM FOODS ON**

1. **Health:** Disturbs equilibrium and dexterity; exhausts the sodium and chlorine supply, resulting in sudden flatulence, great perspiration and weakness; degenerative changes in the cortical cells of the brain, especially in the motor areas; naturally sleepy; weak memory; impairs tactile sensibility by overcharging the brain areas with blood; drowsiness; faintness; absent-mindedness; unconscious or subconscious state of mind; loss of coordination with gravity.
2. **Disposition:** Periodic; depressed imagination.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF POTASSIUM FOODS ON**

1. **Health:** Destroys health.
2. **Disposition:** The person becomes erratic, imaginative, notional, periodic, now intoxicated with joy, then depressed; now in high spirits, then moody; now talkative, then taciturn; gets angry with people; makes fun of them; vehement, suspicious, stupid, confused, childish, dependent upon sympathy; feels that he cannot accomplish anything.



## **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM POTASSIUM IS IN EXCESS.**

1. Abdominal pain, papules on skin, alkalinity of tissues, excessive paralysis, paralysis of eyelid muscles, excessive bloating, great perspiration, bloody stools, precipitation of albumin, brain depression, prostration, constriction of oesophagus, purging, disturbance of respiration, convulsions, spinal cord depression, depression of heart, stringy secretions, disintegration of blood cells, low body temperature, thirst with chilliness, dryness of tissues, tingling sensations, heart failure, tumors in the ears, lacking haemoglobin, ulcerous membranes, jaundice, skin ulcers, medullary depression, uraemia, muscular collapse, vomiting, nerve depression, weakness.

## **xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS POTASSIUM SHOULD**

1. **Eat:** Foods rich in chlorine and sodium.
2. **Avoid:** Foods rich in potassium.

## **xiv. HELPFUL HINTS.**

1. Nichols informs us that a wheat crop, from one acre of land, removes about forty pounds (18Kg.) of potash; that a crop of one acre of potatoes removes four hundred pounds (180Kg.) of potash from the soil.
2. Potash is found in potato peelings, in the outside part of grains, in the peelings of fruits and nuts. The miller removes the outside part from the grain; the cook removes the peelings from potatoes, fruits, tomatoes, turnips, and carrots; so that when the food comes to the table, the potassium salts have been removed.
3. Periodicity is the elementary characteristic of potassium, whether potassium is working in plant, animal, or human tissue; the potassium man acts by fits and starts.
4. Potassium may become excessive in the human system by eating potassium foods to excess; by eating bakers' ginger bread, preserved meats; by taking potassium drugs, such as potassium bromide, potassium carbonate, potassium phosphate, or potassium sulphate.
5. Potassium, in the form of drugs, is a fatal poison and will destroy the functions as quickly as any other poison that could be purchased.
6. Potassium salts if used in manufactured foods and preserved meats, produce disorders of digestion, and increase the waste products in the tissues. They affect the mucous surfaces of the alimentary tract, and produce sensations of burning pain. Potassium increases sodium excretion alarmingly, until tumors develop, and until the sodium supply is exhausted.

## **xv. WHEN A POTASSIUM DIET IS NEEDED.**

1. When fatty food disagrees.
2. When the heart flutters.
3. When objects seem to reel.
4. When the heart is crampy.
5. When pains are terrible.
6. When the thighs are weary.
7. When the skin is bluish in cold weather.
8. When you are always tired.
9. When you are hungry on going to the table, but when you smell the food, the appetite vanishes.
10. When there are crawling sensations in the skin.
11. When you feel like screaming.
12. When eyeballs ache.
13. When you feel prostrated.
14. When eye muscles are tired.
15. When clothing is unbearable.
16. When lips are cracked.
17. When heels are sore.
18. When thirst cannot be gratified.
19. When the head jerks.
20. When there is albumin in the urine.
21. When everything tastes bitter.
22. When intestines have a tearing pain.
23. AT ALL SUCH TIMES A POTASSIUM DIET IS IMPERATIVE.

**vi. PRINCIPAL POTASSIUM FOODS (ALPHABETICALLY ARRANGED).**

1. All foods named herein are organic.
2. Vitamins are found in seeds only, and are killed by heat above 130 degrees Fahrenheit (54.4 degrees C.).

3.

<b>BEST POTASSIUM FOODS</b>	<b>ASH CONTENT</b>	<b>POTASSIUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Chervil	High	Very High	Yes	Raw
Chicory	High	Very High	Yes	Raw
Cress	High	Very High	Yes	Raw
Dandelion	Very High	Very High	Yes	Raw
Dill	Very High	Very High	Yes	Raw
Figs	Very High	28.36	In seeds	Raw
Greens, bitter	-	Very High		Raw
Herbs, bitter	-	Very High	Yes	Raw
Lentils	Very High	34.80	Destroyed	Cooked
Nuts:				
Almonds	Very High	28.00	Yes	Raw
Chestnuts	Very High	56.7	Yes	Raw
Walnuts	Very High	31.10	Yes	Raw
Olives, sun dried	Very High	80.90	In stones	Raw
Peas, Scotch dried	Very High	43-50	Destroyed	Cooked
Sage	High	Very High	No	Raw/tea
Teas, bitter	High	Very High	Destroyed	Juice/steeped

4.

<b>SECOND BEST POTASSIUM FOODS</b>	<b>ASH CONTENT</b>	<b>POTASSIUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Blueberries	Medium	57.10	Yes	Raw
Cabbage, white	High	27.5	In seeds	Raw
Coconut	Medium	43.90	Yes	Raw
Endive	High	High	No	Raw
Lettuce	Medium	37.60	No	Raw
Mint	Medium	Very High	No	Raw/tea
Nasturtium	Medium	Very High	No	Raw
Oats, (Entire)	Very High	17.90	Yes	Juice raw
Oats, (Entire)	Very High	17.90	Destroyed	Cook 22 hours
Parsley	Medium	Very high	No	Raw
Peppermint leaf	Medium	Very High	No	Raw/tea
Potato skin	Medium	60.10	Destroyed	Baked
Prunes, German	Low	59.20	In stones	Stewed/raw
Prunes	Low	48-55	In stones	Stewed/raw
Spinach	Very High	16.60	No	Cook 3 minutes
Swiss chard	Very High	16.60	No	Cooked
Thyme	?	Very High	No	Raw/steeped
Wintergreen	Medium	Very High	No	Raw/steeped

5.

<b>THIRD BEST POTASSIUM FOODS</b>	<b>ASH CONTENT</b>	<b>POTASSIUM</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Bran, wheat	High	37.40	Destroyed	Cook/bake
Carrots	Medium	36.90	No	Raw
Gooseberries	Low	38.65	In seeds	Raw
Meat juice, raw	Medium	Low	Yes	Raw
Peaches	Very Low	54.70	In stones	Raw/cook
Romaine	Low	High	No	Raw

## **6.x. SILICON.**

### **i. SILICON IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Silica, a compound of silicon and oxygen, occurs in nearly all earthy minerals. It enters largely into certain precious stones, such as the jasper, amethyst, agate, onyx, opal and others. Silicon offers great resistance to elementary changes, and to soil and climatic impressions of almost every kind. Next to oxygen, silicon is the most abundant element in the strata of the earth, forming nearly one-fourth of the earth's crust. It constitutes the principal part of most soil, serving as a soil support to plants. Silicon is very abundant in wheat straw; one chemist making the statement that he found silica in wheat straw to the extent of about 68%. Silicon is found in many natural waters and in rocks, and forms a large number of hydrates with acid properties, and gives rise to many different salts that are known as silicates. In medicine silicon is mainly used in the form of an alkaline silicate.
2. The nonpoisonous paints made of silicates are remarkably resistant to sun, heat, cold and weather changes and are therefore useful as outdoor paints. Silicates are used extensively in the glass manufacture. They were also used in Egypt, in Nineveh and in other places by ancient artisans, who were expert manufacturers of beads, vases, of beautifully cut and gilded raised figures, jewelry and hieroglyphic emblems, all ornamentally decorated.

### **ii. SILICON, ITS NATURE AND CHARACTERISTICS.**

1. Silicon is a brownish, almost colourless element, having strong electrical power. It is practically tasteless and odourless, although people with keen taste and odour declare that it has a pronounced odour and taste.
2. Silicon unites readily with the alkalis, the properties of which it neutralises; this, in conjunction with water, produces soil formation and disintegration for the benefit of plants.
3. Silicon gives firmness to grain stalks; produces the polished, hard outside surface in oats, barley, corn, rice and other cereals; and gives hardness, firmness, elasticity and polish to bone, teeth and tendons in animals and human beings.
4. Oats contain in addition to silicon, alkaline phosphate, starch, gluten, diastase, phosphorus and a small amount of chlorine, sulphur, iron, magnesium, calcium, sodium, a considerable amount of potassium, iron, with slightly narcotic properties, and an important active principle called avenin, which has a powerful effect on the sexual system, being important in nervousness, sexual neurasthenia and brain fag; and in the cure of tobacco heart, tobacco and morphine addiction. An oatmeal diet is valuable in neurasthenia, and when a patient is addicted to habits that affect the nervous system, the brain, or the sexual system.

### **iii. FUNCTIONS OF SILICON IN THE HUMAN ORGANISATION.**

1. There are approximately about one and one-quarter ounces (35 grams) of Silicon into human tissue. Free silicon is also used in the body, and eliminated by various avenues after it has done its work. Silicon is found in almost all animal and vegetable tissue, especially in resistive tissue, such as - skin, tendons, dura mater, fascia, hair, feathers and nails.
2. Silicon makes muscles firmer, blood warmer, hair more luxuriant and glossy; it strengthens all of the membranes, the ligaments tissue, the arterial walls, the walls of the throat, the outer and inner linings of organs, the uterine coat, the walls of the alimentary tract, the spinal and cerebral dura mater, the nails and skin. It seems to act strongly upon the nervous system, the brain, and the sexual system. In fact, it seems to impart vigour to the entire organism of man.
3. When the silicon element is actively at work, the tissues are strongly alkaline. It exerts a powerful influence upon the nervous system and the brain. It makes the pulse more rhythmic, the bones more active, the body more alkaline; bones, nerves and mucous membranes possess greater vibratory cell action, and greater power to transmit nerve impulses, when silicon is present in normal quantities. Silicon is a powerful antiseptic. It

- establishes a greater resistance to disease; the body can more successfully defend itself against the invasion of many microorganisms.
4. In combination with sulphur, silicon is particularly necessary for hair and nails. Unless these important elements are supplied as a child is growing up, the hair lacks gloss, strength and flexibility. Animals that have luxuriant fur or wool, as for instance the sheep, fox, bison and bear, require silicon and sulphur in abundance.
  5. A silicon diet has a remarkable effect upon impotence. It is valuable for a patient who suffers from ovarian, hysterical, or menstrual ailments. It is beneficial for those who suffer from tobacco or morphine neuroses; from psychopathia sexualis; from psychosis; from sexual, cerebral, spinal and cerebellar neurasthenia; and for those with nervous debility brought about by excessive work or passion. The morphine addict is in the greatest need of a silicon diet. The man who suffers from sexual debility will never regain his former strength, until he is placed on a diet that is rich in the silicon element.
  6. Silicon has a remarkable effect upon the brain, particularly upon the intellect. A silicon diet enables the brainworker to accomplish much work with less fatigue. Patients of an intense nervo-fibrous constitution, (Exesthetic) are always benefited by a silicon diet; such a diet increases the appetite, and the general sense of wellbeing.
  7. Silicon increases motor energy and working capacity in horses. It increases the endurance of old men suffering from the inclemencies of the weather, and from the ailments of old age. Like alfalfa it increases vigour. Foods that contain silicon, have almost the same effect as those that are rich in Formic acid. Joints become elastic, eyesight brighter, varicose veins less troublesome, polyps decrease; the complexion improves, flesh becomes firmer, scabs disappear, hair becomes more abundant and glossy, both in animals and in people, on a diet that combines the silicon element and Formic acid.
  8. Cancer is unknown in one country, at least, where silicon and formic acid are combined in the national diet. Silicon foods counteract malaria. It is important in catarrh, tuberculosis; tumors; it helps apoplexy, bruises, rheumatism, and consumption of the throat; it counteracts self-generated systemic poisons. Malodorous perspiration of the feet disappears when a silicon diet is taken together with foods containing Formic acid, not in drug form, but in food form.
  9. A silicon diet is valuable for animals that suffer from foot rot. It is beneficial in times of infection as a result of the vaccination serum, and when injuries, sores, and wounds become suppurative because of lack of this element. It helps, to a limited extent the bad results of syphilis and gonorrhoea, if taken in combination with food that contains fluorine, sulphur, potassium chloride, and certain other salts, that are always broken down by the impurities caused by the germs of venereal diseases.
  10. Silicon foods, if taken in connection with foods that are rich in potassium chloride, prevent paralysis. Nervous exhaustion demands an almost exclusive silicon diet. Such a diet helps the circulation by making the arterial wall stronger and more elastic. It has a particular effect upon the testicles, ovaries, inguinal glands, cerebellum, and upon pyorrhoea. It acts upon the epidermis of the skin. It helps measles, a great many swellings, and pus formation, which demands a neutralising agent. It has a partial curative affect upon poisoning by sewer gas (methane). Silicon is needed in the body for good health, but it must not be supplied in excess.

#### **iv. CONSTITUTIONS IN WHICH SILICON IS INHERENTLY**

1. **Excessive:** Sillevitic. Some Nervi-Motive people in whom silicon consumption is excessive.
2. **Deficient:** Neurogenic, Pathetic, Carboferic, Hydripheric, Lipopheric, Nitropheric, Atrophic, some Pargenic people. Also in all those suffering from pus formation, tuberculosis, catarrh, degenerative processes and suppuration.

#### **v. SYMPTOMS WHEN SILICON IS EXCESSIVE.**

1. Agility, ease of movement, speed, imagination. The patient expects the impossible and expresses the improbable. The constitution becomes excessively alkaline. Love is momentary; disposition changeable; imagination vivid; intellect communicative; friendship pleasing; the smile winning. The patient sings, plays, laughs and talks all day long. People of the silicon constitution are similar to the caprine and bovine species which live in the mountainous districts, where it is sandy and stony, and where the altitude is high and the sun shines brightly, as, for instance, such animals as the deer, the elk, the gnu, antelope, cervus sika, chamois, gazelle, addax, eland, steinbok, mountain goat and others. These animals could be called silicon animals. In silicon people the secretions are alkaline, and these people are elastic, active, nimble and fleet.
2. When silicon consumption is too great, there is an increase in the appetite accompanied by a loss of weight. The patient is always hungry, lean, and active. Thinking, deciding and acting seem to be instantaneous processes. The tongue seems as if on a pivot, the brain oiled, and the bones seem to work like steel springs. He is like the chamois in movement. He passes rapidly from subject to subject and never dwells long on any topic. He feels learned and important; he wants a high position. Ecstasy, buoyancy, great optimism, excessive enthusiasm, acuteness of sense perception, loquacity, lively gesticulation and manners, fluctuation in ideas, craving for excitement, fantasy and idealism characterise a silicon patient.
3. The silicon patient is hyperbolic, visionary, full of exaggeration and as playful as a squirrel; his mind is active even in sleep. His moods are lively and humour hilarious. He laughs gleefully at his own peculiarities. He is like a comedian. He unconsciously sings to himself. Even the song of a bird may start him singing and he may continue incessantly for hours or even days. He may often sing in his sleep. Neither does he need very much sleep.
4. As time goes by his mental and physical excitement and activities may become too intense, resulting in overactivity in the motor function. There is excessive energy in the locomotor parts of the body; pain in the cerebellum; excess of alkalinity in the blood, and in the secretion; great heat and inflammation in the lower part of the back of the head; abnormal desire for work, action and enterprise. He develops an abnormal desire for mountains, hills and sunlight. He is an innovative maker of new enterprises. His salivation becomes chronic; some of the solid structures harden and fibroids form; the blood becomes darker; the metabolic heat excessive; and he is subject to fever and alkalinuria. He suffers from great emaciation, because of excessive work. He cannot assimilate the organic elements in normal quantities. He suffers from humming in the ears, optical illusions and exhaustion, because of work and action.

#### **vi. SYMPTOMS WHEN SILICON IS DEFICIENT**

1. A patient who suffers from a deficiency of silicon is overly anxious about himself. He feels that death is approaching; he is more hopeful in the morning; more depressed and anxious towards the evening; and, at this time, he is subject to crying spells, which come on without any apparent reason. Sometimes he feels like screaming. At one time he yields, at another time he is headstrong; at still another time faint-hearted; again, angry, irritable and unable to restrain himself. There is a great sensitiveness in the nervous system.
2. Such patients cannot tolerate motion, strong light, rattle, din, or loud talking. The least noise disturbs their nervous system. The auditory apparatus is often extremely acute. They complain that it is next to impossible for them to concentrate their minds. Heat generation is low; hence, they wrap themselves up in warm fabrics, and retire to a warm, dry, quiet room.
3. The silicon deficient patients are in danger of brain trouble. They feel that there is nothing to live for; the headache is so violent that they are afraid of losing their reason. They are bothered by trivial concerns of their conscious, to which a healthy man would pay no attention; and these may bother them to the point of bitter tears.

They are overexcited, angry at trifles, quarrelsome and dissatisfied, always in a rush. They talk and answer hastily, are extremely fussy, and do not want to talk to anybody.

4. They feel as though they are "a broken down machine". They are anxious; manners are retiring; speech indirect; senses erratic; temper spasmodic; disposition yielding; spirit timid; feelings touchy; sentiments passive; love apathetic; appetite lacking; disgruntled; impatient; thinking is difficult, nerves fidgety; reading, writing and conversation is tiresome; perceptions are volatile; memory beclouded; reason dull. They sleep when riding in a car; always complaining; and always have one problem or another with membranous tissue and body canal walls.

#### **vii. HOW TO REDUCE SILICON IN THE BODY.**

1. **Foods:** Eat foods rich in carbon, hydrogen, nitrogen and oxygen. Omit foods rich in silicon.
2. **Climate:** Live in a low altitude, where the climate is humid.
3. **Mental Exercise:** Do not use the intellect and cerebellum excessively through appetite, feeling, and study.
4. **Physical Exercise:** Be lazy.

#### **viii. HOW TO INCREASE SILICON IN THE BODY.**

1. **Foods:** Eat foods that are rich in silicon. Omit foods rich in carbon, hydrogen, nitrogen and oxygen.
2. **Climate:** Live in a high altitude where the climate is dry and the soil is sandy.
3. **Mental Exercise:** Use the intellect and the cerebellum vigorously.
5. **Physical Exercise:** Engage in active exercise, especially speedy and light energetic action, but it must not be excessive.

#### **ix. PEOPLE WHO REQUIRE SILICON FOODS**

1. **In abundance:** Neurogenic, Pathetic, Carboferic, Hydripheric, Lipopheric, Nitropheric, Atrophic, Pargenic. All people with tubercular, catarrhal, or suppurative ailments or diseases.
2. **Very little:** The healthy Sillevitic; the healthy Nervi-Motive, Medeic, and many Marasmics. If, however, some of those people abuse their health, or if they are too energetic and burn up silicon elements too excessively, they will also need silicon in abundance.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF SILICON FOODS ON**

1. **Health:** It affects health detrimentally; leads to necrosis, suppuration in bone, fibrous tissue, glands and mucous membranes; the nutrition of such fibrous tissue is interfered with. The lymphatic glands are enlarged and show a tendency to suppuration. There is an indication of neurasthenia, for excess of silicon has a bad affect upon the nervous system, as well as upon solid fibrous tissue.
2. **Disposition:** The disposition becomes over-energetic, and the intellect becomes excessively active.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF SILICON FOODS ON**

1. **Health:** There is no desire for work, action, and excitement, for there is no strength left. He feels like a "broken down machine".
2. **Disposition:** Melancholy. The patient becomes a whiner, and soon suffers from hypochondria, imagining that he is full of disease and can never improve.

### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM SILICON IS IN EXCESS.**

1. Alkaline diseases, exhaustion of the intellect, obsession with working, excessive energy in all of the locomotor parts including all the walls of the body canals, and in the cerebellum, feverish rush, excessive enterprise, paresis, fibroids, alkalinuria, emaciation, herpetic eruption, inflammation in the upper part of the spine, fever in the solid structures of the body, optical illusions, malnutrition of the tissues, psychentonia, tendency to necrosis, exhaustion because of excessive work and action, excessive mental, enlargement of the lymphatic glands. Overactivity in the motor function, catabolic changes in the glands, degeneration of mucous membranes, destruction of fibrous tissues, an acid is generated in the body which has a bad effect upon bone and fibrous tissue producing greater tendency to necrosis, suppuration of bone and ailments resulting in catarrhal ailments.

### **xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS SILICON SHOULD**

1. **Eat:** Foods rich in carbon, hydrogen, nitrogen and oxygen.
2. **Avoid:** Foods rich in silicon.

### **xiv. HELPFUL HINTS.**

1. It is a known fact that in many instances silicon mineral waters have a beneficial effect on health. The Mont Dore mineral water contains 0.016% of silicon; the Marienbad mineral water contains 0.014% of silicon; Baden-Baden mineral water contains 0.012% of silicon. These mineral waters seem to have a remarkable affect upon diseases of membranous structures and ligamentous tissue.
2. According to reports from various sources, Mont Dore mineral water is mainly curative of nasopharyngeal, laryngeal, catarrhal, bronchial, rheumatic, gouty, neurotic, asthmatic, and hysterical ailments. Mont Dore mineral water is rich in carbonic acid, and is fairly warm. It is possible that the climate has a great deal to do with the cures reported, for this spring has an altitude of 3550 feet. This would naturally have a beneficial effect upon the ailments mentioned.
3. Marienbad has an altitude of 2,100 feet and the mineral water contains a small amount of carbonate of iron, carbonic acid, sulphate, chloride and sodium bicarbonate. It is however not necessary to spend money by going to mineral springs to drink silicon mineral waters, for a silicon deficient person can eat and drink silicon rich foods and drinks in their own home.

### **xv. WHEN A SILICON DIET IS NEEDED.**

1. Sensitiveness to sound, noise, etc.
2. Flying specks before the eyes.
3. Formication.
4. Morbid preoccupations.
5. Neurasthenia.
6. Excessive irritation.
7. Great intellectual and emotional impressionability.
8. Sleepiness, with alternating sleeplessness.
9. Gets fatigued when talking.
10. When the patient is worried about trifles.
11. When he thinks he has some serious disease.
12. When he thinks he is on a decline, that his powers are being undermined, although no medical evidence of disease can be found, and is therefore considered to be the victim of his own imagination.
13. When there is tenderness along the spine.
14. Flying pains in the chest and in the abdomen.
15. Spasmodic action in the limbs.
16. Throbbing sensations in head or chest.
17. Coughing and wakefulness at night.
18. When there are signs of sexual excesses.
19. When there is numbness in some part or parts of the skin for hours or even days.
20. When there is a great sensitiveness to change of temperature in some limb.

21. When the head and face perspire and the perspiration is warm, yet the temperature of the patient is low.
22. When the patient is cold on the left side of the body.
23. When there is a twitching in the left eyelid.
24. When there is a tendency to chorea.
25. When there is a desire for hot compresses to the head.
26. When excitement causes exhaustion.
27. When electrical treatments and massage make him feel good yet his ailment soon returns.
28. When the patient is lean.
29. When the patient suffers from hay fever and spells of faintness.
30. When there is a tendency to boils and pustules.
31. When the thighs are sore.
32. When there is a lame sensation in the sacrum.
33. When the urine is light amber, or dark amber, or light yellow, and it contains red sandy or a milky sediment.
34. The urine may also contain phosphate; the urination is frequent, perhaps distressing, because of contraction of the sphincter muscle.
35. When there is a very little strength in the lower limbs.
36. When the pulse is small or rapid, then slow and weak.
37. When the fingertips sweat or burn by turns.
38. When the feet itch.
39. When mental sensations seem to centre in the solar plexus.
40. When there is a great tendency to snoring.
41. When there is gristle in the knees.
42. When a patient becomes sleepy in the afternoon.
43. When there are fleeting pains in the genital parts.
44. When the patient perspires in going up a stairway, and has a great difficulty in going down a stairway, because of weakness in the ligaments.
45. When the patient staggers to the right side in walking.
46. When the hair falls or turns grey early in life.
47. When the flesh is loose or lax.
48. When motion aggravates, and the patient craves rest.
49. When the cranial sutures fail to close in a growing child.
50. When there are large warts.
51. When there is a tendency to suppuration.
52. When the body canals have a tendency to becoming narrow.
53. When the body parts seem foreign, lost, numb, or elongated.
54. When the nervous and sexual systems are shaken to their very foundations.
55. When there is a strong tendency to tobacco and morphine addiction.
56. When there is a great tendency to sores, crusts, blood poisoning, boils, vaccinosis and facial herpes simplex.
57. When there are swellings and running sores, and the sores leave ugly scars.
58. When there is a gurgling in the shoulder joints, or in the spleen, or in the lower limbs, or somewhere in the blood vessels.
59. When there is a tendency to fall forward.
60. When there is a cold sensation in the neck and head, which travels in waves through the body.
61. When there are rosy blotches on the skin.
62. When the skin eruption is worse in sunlight.
63. When excretions are putrid.
64. When nerve ends at the surface of the skin itch, sting, or jump.
65. When the bones seem loose and rattling, or divided.
66. When there is a chilly, circumscribed spot on the left side of the body.
67. When the slightest effort brings on perspiration.
68. When there is a great thirst after twelve o'clock at night, but not before.
69. When the limbs jerk.
70. When the soles of the feet itch beyond endurance.
71. When the flexor tendons give out, and joint tissue becomes weak or paretic.
72. When there is a great fear of disease and death.
73. When there is throbbing in the cerebellum, especially in a pregnant woman.
74. When emotion produces respiratory oppression.
75. When the disposition is bad tempered.
76. When the breasts are tender, limbs weak, brain fagged, milk bloody, the cutaneous tissue lumpy, foot sweat offensive, piles painful, and sexual intercourse is nauseating; the genitalia moist, tender and painful.



77. When the semen ejaculates prematurely.
78. When sores are lumpy.
79. When glands are swollen or hard, or pus purulent.
80. When the skin of the face is yellow.
81. When the liver is enlarged.
82. When the pylorus is hardened, the heart is uneasy, the appetite variable, and perhaps deficient.
83. When the throat is slimy, the tip of the tongue ticklish, the roots of the teeth suppurating, tissues cancerous, the teeth full of caries and sensitive to cold air.
84. When the lips are parched and perhaps encrusted.
85. When the tip of the nose is always cold.
86. When the nasal membranes are swollen, dry and acrid.
87. When the earwax is like curds.
88. When the ears are itchy.
89. When the retina is sensitive and is sore.
90. When the cornea hardens.
91. When the scalp is sensitive.
92. When the neck has scabs, is burning, tingling, itchy and pustular.
93. When the brain is sensitive to concussive vibrations.
94. When headaches are alleviated by hot fomentations.
95. When the top of the head is sore and painful, and subject to partial congestion, producing at times hot, red cheeks, and a yellowish complexion at other times.
96. When the head and face perspire often, but mainly at night.
97. When there is no ambition for mental exertion.
98. When a feeling hangs over the patient that death is approaching, or that some fatal disease is near, and is lurking in his tissues - AT ALL SUCH TIMES SILICON FOODS ARE NECESSARY, EVEN IMPERATIVE.

#### **xvi. PRINCIPAL SILICON FOODS (ALPHABETICALLY ARRANGED).**

1. As a general rule silicon is found in the outside part of the grain, and this is usually milled away by millers. It is found in the peelings, and these are usually thrown away, thus people are likely to be silicon deficient, because of the milling, refining, paring, and cutting processes.
2. All foods named herein are organic.
3. Vitamins are only in the seeds, these are destroyed by heat above 130 degrees Fahrenheit (55 degrees centigrade).

4.

<b>BEST SILICON FOODS</b>	<b>ASH CONTENT</b>	<b>SILICON</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Barley.	Very High	28.70	Destroyed	Cooked/baked
Oats (Entire).	Very High	39.20	Destroyed	Cooked/baked

5.

<b>SECOND BEST SILICON FOODS</b>	<b>ASH CONTENT</b>	<b>SILICON</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Asparagus.	Low	10.10	Destroyed	Cooked
Beechnuts.	Very High	2.70	Yes	Raw
Cabbage.	High	4.78	No	Raw
Cucumber.	Low	8.00	In seeds	Raw
Figs.	Very High	5.93	Yes	Raw, fresh
Horseradish.	Medium	12.70	Yes if raw	Raw/cooked
Lettuce.	Medium	8.10	No	Raw
Milk:				
Cow's	Low	0.04	Yes	Raw
Goat's	High	0.02	Yes	Raw
Human	Low	0.02	Yes	Raw
Olives sun-dried.	Very High	0.65	In stones	Raw
Peas.	Very High	0.90	Destroyed	Cooked
Rice (unpolished).	Medium	2.60	Destroyed	Cooked
Rye (entire).	High	1.40	Destroyed	Cooked/baked
Shredded wheat biscuits	High	1.85	Perhaps	Raw
Spinach.	Very High	4.50	No	Cooked 3 min.
Strawberries.	Low	12.05	Yes	Raw, fresh

## **6.xi. MANGANESE.**

### **i. MANGANESE IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Manganese is an element that is very widely distributed through the mineral and vegetable kingdoms. It is a hard brittle metal, resembling cast iron in its colour and texture. Clay, iron and stone often contain manganese. Manganese is mainly found in nature in both its elemental state and also in combination with other metals.

### **ii. MANGANESE ITS NATURE AND CHARACTERISTICS**

1. Manganese has the symbol Mn. It is grey-white, or silvery-white metal. It is an electrical conductor. Manganese occurs mainly as an oxide. It oxidises rapidly when exposed to air. In coming in contact with water it acts as a catalyst, and Hydrogen is liberated.
2. Manganese has many of the characteristics peculiar to iron, yet it is different in its properties. It will acquire a beautiful polish. It is a useful metal, and possesses remarkable qualities, not found in other metals. Because it has inherently ductile, tensile, wiry and elastic properties, it is used in many manufacturing processes, in which it is important to impart these qualities to metal, metallic products and wares.
3. Manganese is used much in the manufacture of steel to increase its ductility, and enduring qualities, in processes of efficient forging. Manganese steel, or manganese combined with iron, gives strength, hardness, toughness, ductility, and elasticity to iron, and iron wares, and enhances the qualities for forging and tempering of iron, steel and metal wares.
4. Manganese also adds useful properties to glass and pottery.
5. Manganese is of great value in the laboratory in processes of analytical chemistry. It decreases the liability to corrosion in certain metals. In the manufacture of glass, manganese is used to a large extent to counteract the yellow tint produced in the glass by oxide of iron. The black enamel seen in pottery is due to the manganese oxide. Manganese or peroxide, is used in the preparation of chlorine for the manufacture of bleaching powder.

### **iii. FUNCTIONS OF MANGANESE IN THE HUMAN ORGANISATION.**

1. Traces of manganese are found in the blood cells, and in certain solid tissue. The small quantity of manganese present in the body performs an important function. It has a noticeable effect upon the lining of the heart, the lining of the bones, the lining of the cranium (meninges), the membrane surrounding the viscera (peritoneum), and all the structures of the joints. It evidently influences bone production, by increasing the hardness and elasticity of bones and other solid tissue. It acts upon the biliary passages, on the lining of the intestinal tract, on the lining of the larynx, and on the structure of the biliary duct.
2. Manganese seems to have an interrelated connection with the function of bile. Under the influence of a diet rich in manganese, the lining of bone, the walls of the body tubes, the motor nerves and the linings of organs improve; perhaps because manganese helps to make tubes, linings, periosteal structures, bones, and fibers more rigid. It acts upon the linings of the reproductive organs. Under the influence of fluorine, silicon, and manganese, the strength, endurance, conductivity, elasticity, hardness, wiriness, toughness, tensility, and heat endurance, are increased in a person or patient.
3. A rich manganese diet, in connection with foods rich in sodium, has a beneficial effect upon a patient suffering from gout.
4. Manganese is a purification agent, because of its antiseptic and germicidal properties. It counteracts certain body acids and products, so that they become less harmful to life, to the functioning, and to the metabolism of solid structures. Manganese counteracts the effect of opium, and the effects of certain venereal miasms. It increases the recuperative power of the body, assists in the battle against acid, microorganisms, and against rheumatic, septic, and gouty ailments.

It increases the effect of body purification procedures; and it promotes normal metabolism in the joint membranes.

5. It performs many important functions, some of which are still rather obscure. It has an indirect effect on bone metabolism and catabolism. It hinders the development of cancerous growth in membranes, linings and organs. It helps in the construction of ligamentous structures. It has a beneficial effect on bone ablation, cell density in bone tissue and the disinfection of bone and ligamentous structures. Osseous and ligamentous tissue oxidation is increased by manganese, the same as it influences oxidation processes in plants.
6. Manganese possesses tonic food properties, and also tonic medicinal properties. Manganese acts strongly on the uterine lining through the nerves, not through the blood. When manganese is lacking in the body, health suffers, and tubular tissue, membranes, bones, ligaments, linings, and gelatinous structures suffer; and certain unmistakable symptoms appear. Although there is only a minute amount of manganese in the body, yet this tiny amount serves an important purpose.
7. There are several elements found in the body only in minute proportions, viz., sulphur, fluorine, potassium, sodium, magnesium, iron, silicon, manganese, and iodine, the latter two being present in extremely small quantities. If any of these elements are lacking, or partly lacking, it results in chronic diseases which are impossible to cure until the missing element, or elements, are supplied in the form of organised food. Scientists rarely give the presence of manganese in food its rightful significance.

#### **iv. CONSTITUTIONS IN WHICH MANGANESE IS INHERENTLY**

1. **Excessive:** None.
2. **Deficient:** Almost all constitutions.

#### **v. SYMPTOMS WHEN MANGANESE IS EXCESSIVE.**

1. Perplexity; embarrassment.
2. Unsteady gait; inability to direct and control mind, nerve, and muscle.
3. The patient's mind is full of ideas.
4. Worries at times excessively about unimportant conditions and details.
5. Laughs, weeps, worries, and suffers grief excessively.
6. Optimistic at one time, pessimistic at another.
7. Emotions are usually active.
8. A happy surprise may have an adverse effect on general well being.
9. Pleasure sensations, cravings, dislikes, sympathy, wonder, appetite, content, joy, despair, fear, grief and other emotions are always excessive.
10. Weakness from a strong, sudden emotion.
11. Motion, action, work, emotion is increased and increases the physical function, especially the sexual.
12. When the patient is excited, the chest heaves vigorously, the lower lip trembles, and there is a tremor in the nerves of the limbs.
13. The patient occasionally experiences fear of death, accompanied by waves of feverish heat and simultaneous cold shivers.
14. He is supersensitive, even ill-humoured at times and has changing moods with crying, fear, despair, anger, and cheerfulness.
15. His power of visual accommodation is increased, so that he is able to read the finest kind of print and notice small objects at great distances.
16. His senses, faculties of perception and the creative faculty, and all intellectual processes are more active.
17. He is more conscious than usual of the slightest change in position, motion, and location.
18. His sense of motion, touch, taste, smell, hearing, are all more acute.
19. His own pulse seems to vibrate more keenly in his ears, when he is out in the open air, than when in the dark.
20. He is keenly aware of the action of his own physical functions.
21. He is seemingly wide-awake; he acts quickly and is aroused easily at night from the slightest causes.
22. He is highly sensitive to the touch of other people.

23. It appears that his brain is in a state of super tension that the nerves and teeth are more sensitive.
24. He is under high tension and keenly impressive to all sorts of emotions and sensations.
25. He complains of pain when sitting still.
26. When he takes exercise he perspires along the spine.
27. He complains of external warmth that comes in waves like lukewarm water, accompanied with shivers of the spine.
28. He complains of coldness and stiffness when it is dark, but not in the daytime.
29. The respiratory movements of his chest have a greater range than normal.
30. He tries to swallow when out in the fresh air and strong sunlight, he says something sticks in his throat, his vocal chords and throat become enlarged.
31. He has a keen hunger for food.
32. When he perspires he complains of thirst; he wakes up in up in the middle of the night and complains of thirst.
33. If he drinks anything cold, or eats anything cold, it produces jerky sensations in the nerves, and aggravates the nerves in the teeth.
34. Any cold drinks or cold foods increase the prevailing state of his mind, i.e. if he is joyful, he becomes more joyful; if he is depressed, he becomes more depressed; if he dislikes anything, his dislike is increased.

**vi. SYMPTOMS WHEN MANGANESE IS DEFICIENT.**

1. Manganese deficiency results in confusion.
2. Impairment of memory.
3. Affects the muscular coordination; handwriting, grammatical correctness, the memory of location, power of command, order, system and direction, grasp of detail, and of connection between subject and subject.
4. Forgetfulness, absent-mindedness.
5. Liable to errors in speech, which involve forgetfulness of subjects and omission of clauses, phrases, and words in sentences, both in spoken and in written language, these are a natural result of manganese deficiency.
6. The manganese deficient patient is inaccurate.
7. He will say that a certain letter is in that drawer, but he does not specify which drawer, nor the location of it.
8. There is incompleteness about his orders, commands, directions, letters and speech.
9. He can not clearly grasp all the details relating to a specific subject.
10. There is a lack of connection between one thought and the next thought.
11. He is more or less puzzled, and his mind wanders.
12. He has dislikes, fears, and makes hasty judgments and errors.
13. He dislikes effort.
14. The will is weak, nerves spasmodic; the mind irresolute.
15. If he is an office manager, he has the whole office in a state of confusion.
16. He is hesitating in judgement, falters in his speech and in his accent, stammers in pronunciation, experiences feelings of doubt and wavers in plan and motive.
17. He expects trouble and his future looks dark.
18. The does not like objective concepts.
19. He talks a great deal about himself, about his likes and dislikes, especially his dislikes.
20. Dislikes, ambiguity, irresolution, uncertainty, doubt, and perplexity take possession of him.
21. His information is misleading.
22. Noise and discord are distasteful.
23. He whips children because they are too noisy.
24. He is nervous, anxious, apprehensive and depressed.
25. He craves quiet, rest, peace and gentle treatment.
26. He claims that objects are fixed in front of his eyes.
27. He says that his brain feels loose, that it feels as if it is rolling from side to side, when he bends down, or to the side, or to the front.
28. Downward motion has a bad effect on him.

29. It is difficult for him to dance; as soon as he turns, or as soon as there are any rotary motions, he becomes confused.
30. It seems he cannot adjust himself to motion, or to loss of motion.
31. Rocking, turning, up and down movement of a ship, or the motion of a car or train disturb his equilibrium and often results in a disagreeable sensation, perhaps even vomiting; yet, he wants to be out in the fresh air and sunshine.
32. His face is hot, perhaps bloated; his eyes red and swollen, his scalp itches, his head burns at the lower part of the back of the head.
33. He closes his eyes tightly as though there is a pressure on them from within, affecting the mechanism of accommodation of the eye.
34. His eyes itch and smart.
35. It seems that there is insufficient secretion of cerebrospinal fluid, causing brain shrinkage.
36. The taste function is erratic; now he says he has a sweet taste in the mouth, then again a metallic taste, then an oily taste, then a sickly taste, then a sour or a foul taste.
37. Food produces a fatty, rancid, oily and disagreeable taste in his mouth.
38. Milk produces distension of the stomach.
39. The stomach feels too small and drawn together like a rubber band.
40. His lower limbs are seemingly lifeless.
41. The nerves of the heart are overactive, producing fearfulness, flashes of light before the eyes, temporary sleeplessness, perspiration, tremors, difficulty in breathing, fainting spells, a tendency to fall and epileptic symptoms.
42. A rash appears on his chest or on his back.
43. His glands swell.
44. His hands tremble.
45. His bones crack.
46. There is a tendency to yawn during the day.
47. He becomes drowsy between twelve and three o'clock every afternoon and cannot keep awake.
48. He groans when he exercises.
49. He is reserved in disposition, and withdrawn.
50. His head feels heavy and larger than usual.
51. His brain seems plugged.
52. His nerves are dull, eyes drowsy and dreams vivid.
53. Heat sensations start in the central part of the brain and travel towards the feet.
54. It seems that manganese increases the tensile strength of the nerves, nerve conductivity and the transmission of nerve impulses.
55. It seems that intercommunication between neuron and neuron, between brain fibre and brain fibre, brain compartment and brain compartment, is improved under a diet with much manganese, and the mind is clearer.

#### **vii. HOW TO REDUCE MANGANESE IN THE BODY.**

1. **Foods:** Omit foods rich in manganese.
2. **Climate:** Stay as much as possible in the dark.
3. **Mental Exercise:** Think at night.
4. **Physical Exercise:** Night work.

#### **viii. HOW TO INCREASE MANGANESE IN THE BODY.**

1. **Foods:** Eat foods rich in manganese.
2. **Climate:** Stay in the sunshine and fresh air.
3. **Mental Exercise:** Use the intellect mainly during the day.
4. **Physical Exercise:** Take pleasurable exercise during the day in the fresh air and sunshine, to increase manganese metabolism.

#### **ix. PEOPLE WHO REQUIRE MANGANESE FOODS**

1. **In abundance:** All people.
2. **Very Little:** Those who are normally healthy and active, both physically and mentally.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF MANGANESE FOODS ON**

1. **Health:** It disturbs health.
2. **Disposition:** The temperament becomes emotional, and there is a tendency to exaggerate states of mind, and conditions.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF MANGANESE FOODS ON**

1. **Health:** Health is disturbed.
2. **Disposition:** Fitful.

#### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM MANGANESE IS IN EXCESS.**

1. Pruritis vulvae, excessive and frequent urination, pains in one side of the head, watery diarrhoea, pinched nerve sensation, nerve pressure, toothache without seeming cause, wheezy voice, crural neuralgia, inflammation of nerves, fear, congestion of the gums, tendency to fall, chills and perspiration, emotionalism, cowardly disposition, disagreeable flatus, cracking in the ear and brain, whitish leucorrhoea, symptoms of apoplexy, excessive impressionability.

#### **xiii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS MANGANESE SHOULD**

1. **Eat:** Immaterial.
2. **Avoid:** Foods rich in manganese.

#### **xiv. HELPFUL HINTS.**

1. Manganese is very important in certain forms of gout and rheumatism.
2. There is a greater presence of mind, and greater harmony among the faculties when Manganese is present in the system; and also greater intellectual ability.
3. Ailments are always worse when the patient is sitting still, and at night when it is dark.
4. There are jerky sensations in the nerves, that nothing else will cure than a diet that is rich in manganese.

#### **xv. WHEN A MANGANESE DIET IS NEEDED.**

1. Very poor handwriting, forgetfulness, absent-mindedness.
2. Errors in speech, lack of system, optical illusions.
3. Brain shrinkage, erratic function of taste.
4. Pain in the throat, dryness of the throat, recurrent or chronic laryngitis, enlarged tonsils.
5. Perspiration, tremors, difficult breathing, fainting spells, torpidity, poor power of endurance, periostitis.
6. Gout at night, dry catarrh, glossitis, congestive headaches, cardiac spasms, tension in the heels.
7. Pseudo-angina, menstrual cramps, unsteadiness of gait.
8. Swelling of eyelids, chalazions, itching.
9. Temporary sleeplessness, lack of muscular coordination.
10. Pressive or pulling sensations in the optic nerve; thirst and heat sensations; tension and stiffness in the tendons.
11. Gripping and drawing pain sensations, weakness in the rectal muscles, tendency to fall and epileptic symptoms.
12. Drowsiness between the hours of twelve and three in the afternoon, disturbance of equilibrium.
13. Lack of repose, rest, sleep and recuperation of the entire nervous system at night, lack of intercommunication between different brain areas.
14. Gouty pains in fingers, wrists, ankles, hips, knees, vertebra; Chlorosis rubra accompanied with Marasmic tendencies; lack of emotional control.
15. When gout and rheumatism are worse at night and better in the daytime, when itching is worse during and after perspiration, when the senses are dull in the open air. When there is itching in the popliteal area or in hollows of the joints; when swellings have a glossy appearance on the skin; when motion causes a rushing sound in the ears.

16. When there is a burning sensation in the body with profuse perspiration.
17. When there is a sensation of waves which travel like warm water accompanied with shivers in the spine, when the pain runs downwards.
18. When hot foggy weather aggravates all the symptoms.
19. When cold food, drinks, or tonics produce toothache, when there is rawness between the fingers or toes.
20. When nerve pains run from the shoulder to the finger tips or from the hips to the toes; when there is a gnawing, boring pain in the spinal bones; when there is mitral valve insufficiency; when the nipples are very tender.
21. When there is a boiling, trembling, rushing, bubbling sensation in the heart or elsewhere.
22. When laughing, dancing, talking, walking or breathing cause headaches, when bone and joint metabolism is imperfect.
23. When there is a rough tickling sensation in the throat in the morning, or when the patient is out in the sunlight.
24. When the spermatic cord has a drawing and burning sensation, when the skin is dry but perspiration profuse.
25. When the urine has a clay-like sediment after standing.
26. When the faeces are yellowish and there is a drawing sensation in the anus, when the abdomen is full of wind, the bowels are lax, and the maxillary joints painful.
27. When cold food or drink produces tensive pressure in the stomach or bowels; when there is never any thirst, even though the throat and stomach are dry.
28. When the stomach contracts so that it cannot hold food.
29. When the undigested food is evacuated in the faeces.
30. When there is a greasy taste in the mouth, or when there is a greasy scalp, or a fetid odour from the skin, when there is an enlargement of the ovaries, accompanied with uterine induration.
31. When the skin is shriveled, the face pale and sunken, the tip of the nose sore, the facial bones neuralgic, the eyesight poor during the day, the eyeballs tender, the eyes tired.
32. When objects are dim and seem to dance before the eyes, and artificial light produces pain in the eyeballs; when objects have a light or purple sphere around them, similar to that of Aurora Borealis; when there is a great sensitivity to drafts.
33. When the patient is worse in the morning, has neuralgia, a dull in intellect, and has a special fondness for dry, fresh air and genial sunlight, but a dislike for moisture, whether cold or hot; when there is a burning, watery discharge from the nose, when vesicles form at the roots of the tongue, and swallowing is difficult.
34. When there is anxiety around the heart region, trembling in the hands; a rash appears on the skin, lameness, soreness and stiffness in the arms.
35. When there are tearing, pulsating, darting, tickling, twisting, twitching, itching, chilly, gnawing, shifting, stinging, boring, creeping, burning, jumping, or wavy pain or sensation in the nerves, especially at night.
36. AT ALL SUCH TIMES A MANGANESE DIET IS IMPERATIVE

**xvi. PRINCIPAL MANGANESE FOODS (ALPHABETICALLY ARRANGED).**

<b>BEST MANGANESE FOODS</b>	<b>ASH CONTENT</b>	<b>MANGANESE</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Chives.	Low	A trace	No	Raw
Cress.	Medium	A trace	No	Raw
Egg yolk.	1.9	A trace	Yes	Raw
Endive.	Medium	A trace	No	Raw
Nasturtium	Medium	A trace	No	Raw
Nuts:				
Almond	3.10	0.2	Yes	Raw & ground
Chestnuts	3.00	0.3	Yes	Raw
Pignolias	High	0.1	Yes	Raw
Walnuts (Californian)	0.59	0.3	Yes	Raw
Parsley.	Medium	Some	No	Raw
Peppermint Leaf.	Medium	A trace	No	Raw
Wintergreen.	Medium	A trace	No	Raw

## **6.xii. FLUORINE.**

### **i. FLUORINE IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Fluorine is found in Derbyshire, as fluorspar, from which beautiful ornaments are made.
2. Fluorine is found in the enamel of the teeth. It is found in the glossy surfaces of bony fibrous tissue and in cartilage of men and animals. It is found in greenish sea water and river water; and it is found in certain species of grass, growing in the sea, or in swamps.

### **ii. FLUORINE, ITS NATURE AND CHARACTERISTICS.**

1. Fluorine unites with hydrogen, forming hydrofluoric acid, which is noted for its corrosive action on glass. So delicate is the test of this acid, that by this means the presence of fluorine has been detected in fossil teeth. This acid is extremely corrosive. The smallest drop on the skin is likely to produce an ulcer.
2. The word "Fluorine" comes from the Latin "flur", from the verb "fluo", which means to flow.
3. Fluorine is the only element that does not unite with oxygen to form compounds, though it is found in combination with other elements, especially calcium. There is a strong affinity between calcium and fluorine. Fluorspar, when pure, contains about 49% Fluorine, and about 51% calcium. Fluorspar is found in metal carrying strata, which contain silver, tin or lead ore. It is sometimes colourless and transparent, but usually has a tint of yellow, green, blue and red. Fluorine salts are highly corrosive and poisonous in their full strength.

### **iii. FUNCTIONS OF FLUORINE IN THE HUMAN ORGANISATION.**

1. Fluorine is constantly at work in animals and man, especially in bony tissue. It is fluorine that adds beauty and strength to the feathers of birds. Chickens need fluorine for the proper development of their eggs. The yolk of the egg contains fluorine, and requires it to a certain degree. If chickens are given food from which they cannot obtain fluorine, they become subject to chicken diphtheria, chicken cholera, and other ailments. Moreover, the baby chicks will be more feeble and sickly.
2. Although only about three to four ounces or 85 to 113 grams of fluorine are found in the body, Fluorine is important to the health of man.
3. Fluorine is a worker in bone and a twin brother to calcium. The great chemist, Berzelius, found two percent calcium fluoride in human bone. Fluorine and calcium work together mainly in the external part of the bone, where they form teeth enamel and the hard, highly polished bone surfaces. Fluorine acts upon calcium and hinders calcification. Under the normal influence of fluorine, calcium cannot decay, crumble, calcify, infiltrate, ulcerate, suppurate, indurate, nor increase excessively in any bone structure. Because fluorine and oxygen do not have any affinity, oxygen cannot penetrate the hard, glossy, surface of bones or teeth. Fluorine is present in the spleen, in the eye structure, and in elastic fibers.
4. Fluorine acts with albumin in elastic fibre, and helps to form the hard coatings of muscular tissue. It is present together with calcium in the nails, skin, and hair; the arterial and venous walls; in joint tissue and in solid membranes. Fluorine has much to do with bone repair, growth, construction, maintenance and strength. When fluorine is not present in the blood, tumors, prolapsus, hardened glands, indurated enlargements, weakened elastic fibers and ligamentous tissue, and also varicose veins result.
5. Fluorine is a preventive for heavy dental bills. It is antiseptic, antipyric, antiparasitic, antipyretic and antisiphilitic. It opposes the enemies threatening bone and tissue life, viz., germs, oxygen, bacterial gases, destructive acids, calcic and bacterial toxins and other agents of a destructive nature. As long as that dense, hard and glossy fluorine surface, the enamel, is intact, decay, toothache and infection are out of the question.
6. Fluorine is the sanitary officer of the body. There are certain diseases, germs, toxins, pus and miasms, that break down the fluorine supply in the



body. Among these are: consumption and syphilis germs, mumps, erysipelas and certain bacterial toxins and vaccinosis. When fluorine, that sanitary officer in the human body, is destroyed, watch the bones, solid tissues, teeth, skin, integuments, membranes, periosteum, pericranium, and notice the results. There is decay here, necrosis there, ulcers in this place, bone growths in another; hardened glands, sclerosis, corruption, decomposition, destructive oxidation everywhere. When the enamel of the tooth is destroyed, oxygen and bacteria do the rest.

7. Fluorine is a preserver of the skull, teeth, hair, nails, and indeed, of the whole skeleton. When there is a lack of Fluorine, the bones are like plaster. When Fluorine has done its work in the bones or teeth, the bones and teeth are like flint, for fluorine holds together the bone-cells and cements them into solid blocks.
8. In conjunction with silicon and certain other elements, fluorine forms a glossy, hard, tenacious, polished, and ornamental enamel, or veneer, which defies "the tooth of time", viz., oxygen. Oxygen is helpless; decomposition is impossible. Fully formed skulls, teeth, nails and skeletons of animals have come to us from the hoary Permian 225 to 270 million years ago. Bone building, bone sanitation, bone condensation, bone glazing, bone protection, bone repair and other bone processes, are incomplete, if fluorine is lacking.
9. Fluorine improves osteogenesis, keratinisation, or the manufacture of keratin, which is the basic material of bone, horn and nails. Fluorine increases the hunger for, and absorption of, calcium, gelatin, lime carbonates, Sodium chloride and other tissue salts required as material in the bone factory of the human body.
10. A person who suffers from syphilis, requires a fluorine diet. Mercury may stop fluorine destruction in the body, but the patient is not cured; he goes to his grave with rotten bones, and in a few years his skeletal remains disappear. A thousand years from now, no anthropologist will measure the capacity of his skull; no character reader will read his character from his head formation. He dies in bone, cranium, and skeleton, and his skull crumbles like dry wall plaster. Even while he lives, he suffers from bone diseases, peculiar to him alone.
11. Fluorine is a preserver of youthfulness, and an aid to long life. People who have Fluorine in abundance look young when they are old. Fluorine is the greatest preservative element that enters the human body.

#### **iv. CONSTITUTIONS IN WHICH FLUORINE IS INHERENTLY**

1. **Excessive:** Marasmic, sometimes in the Exesthetic.
2. **Deficient:** Pargenic, Atrophic, Carboferic, Neurogenic, sometimes in the Pathetic, occasionally in the Nitropheric.  
It is always deficient in all people suffering from syphilis or from vaccinosis.

#### **v. SYMPTOMS WHEN FLUORINE IS EXCESSIVE.**

1. Excessive sexual desire.
2. Inflammation and irritation of the sexual system, and its associated areas in the brain, possibly by its corrosive action on the cerebral and spinal meninges, for these structures are always attacked, together with the deep osseous tissues, when fluorine is in excess.
3. Destruction of the reproductive power.
4. Eating and smoking to excess, or until the person becomes obese and coarse in appearance.
5. There is great fondness of wine, coffee, sweets, and fatty food.
6. Always hungry, but never thirsty.
7. The skin is bloated, red, dry and hot.
8. Excess of fluorine interferes with the normal distribution of the blood, so that certain parts become excessively charged with blood, while other parts are more or less anaemic. The blood flows to the brain; the pericranium, the periosteum, the dura mater, in between the cerebral and cerebellar hemispheres, and the lobes of the brain become more or less involved, resulting in a disturbance of brain function.
9. Recollection is almost lost.

10. The corpus callosum, the falx cerebri, the tentorium cerebelli, the falx cerebelli, and the Pacchionian glands situated at the inner surface of the vertex of the skull, containing calcareous concretions, containing brain sand, become inflamed, ulcerated, hardened, resulting in brain diseases. Other parts of the brain, such as the pineal gland, the pituitary body, the peduncles, the venous sinuses, become affected, with the possible result of religious mania.
11. The fluorine excess patient worries about his religious welfare, his salvation. He feels unfit to associate with people, unfit for the world, unfit for divine acceptance, all because the firmer structures of the brain have become inflamed and indurated and because excess of fluorine always attacks the deeper and more solid structures and glands.
12. The fluorine excess patient worries about his duties, his work, and his loved ones. He cannot get his work done fast enough. He fears hell and damnation, experiences great anxiety, in regard to his future, his standing in society, his duty and his business.
13. He imagines people have lost confidence in him, the same as he has lost faith in himself.
14. Now he is cheerful, then depressed; now he works indifferently, then he labours to excess.
15. In the morning he is active and alert, in the evening low-spirited, for his symptoms are always more aggravated towards the evening, or by heat, moisture, or motion.
16. Grief aggravates his symptoms.
17. The sensory cortical centres are morbidly stimulated, resulting in affections of part of the visual field, in negative, visual and unilateral hallucinations. He sees objects that are not real. He sees only one half of an object, the other half of the object being obscure, perhaps black, or not visible at all.
18. His more solid eye structures are affected, so are his sense perceptions, especially those of taste, smell, and hearing, which are sometimes almost lost.
19. His voice has a nasal quality.
20. He prefers to be in his bed.

#### **vi. SYMPTOMS WHEN FLUORINE IS DEFICIENT.**

1. The fluorine deficient patient is difficult to arouse in the morning.
2. It is difficult for him to get his brain into action, without a great deal of effort.
3. He has a swimming sensation in his head.
4. He regrets many things; his mind is hazy, memory almost lost.
5. His appetite is tremendous when it is aroused; he is never thirsty in the morning, but often in the afternoon.
6. He is in a state of subdued fever.
7. He likes fatty foods.
8. His sexual appetite is in a feverish state; motion aggravates this ailment.
9. He is bothered with nausea and dizziness, being often obliged to lie down and keep still because of the nausea.
10. The magnesium deficient patient craves motion and is benefited by motion.
11. The fluorine deficient patient craves stillness, and is aggravated by motion.
12. The fluorine deficient patient suffers from respiratory oppression.
13. Deafness in the morning, but not in the afternoon.
14. Bruised sensations in the muscles in the afternoon, increased sexual desire at night.
15. Fatty perspiration, more abundant at night than during the day.
16. Very forgetful of promises made, and a tendency to worry.
17. Much indifference to, and even dislike for wife, husband or children.
18. Anxious, apprehensive disposition.
19. Heaviness in the forehead.
20. Frozen, numb sensation in the brain.
21. Indifference to family and greater interest in strangers.
22. Daring, courage, self-satisfaction, periods of ill humor.
23. Violent grief with many delusions characterises the fluorine deficient patient.

24. The fluorine deficient patient is a puzzle to psychologists. He can reason like a lawyer, yet has many unusual moods. He may think himself obsessed, because of false voices in his own brain, or ears. He suffers more mentally than people know or than doctors suspect. He complains of shivers in the brain and nerves, tremendous headaches, nervous shocks, and almost unconscious spells. Nerve and brain sensations of a dull trembling, uneasy, moving, twitching and burning nature always centering in the epigastric plexus and the stomach.
25. His headache is so severe he may apply boiling water to his head or knock his head against walls to relieve the pain.
26. Electrical storms have an exhilarating influence upon him. His head is swollen, tissues puffy, vision double, or perverted, or it appears to him as if he is enveloped in a blue cloud. He has frightful dreams of love scenes.
27. He has an exaggerated opinion of his own skill, genius and enterprise. He dislikes doing things on a small scale. He feels superior to workmen, bosses, superiors, and has trouble with them. He becomes clairaudient or clairvoyant, often hearing strange voices that give him advice regarding investments, inventions, and leadership.
28. When he thinks of churches, or anything religious, his mind becomes filled with delusion and fear, which centres in the pit of his stomach, accompanied with false voices, whispers, and sounds.
29. He may be lifted up into the seventh heaven of happiness, and then suddenly thrown down into the abyss of dark depression and despair. Now he feels tremendously strong and great, then he feels as small as a pinhead and may develop a tendency to violent cursing and tearing.
30. All such experiences and imaginations he never tells to others. He imagines that there are evil spirits around him and that they are repeating his own statements. So soon as he closes his eyes, he has brain visions, horrible alligators, lizards, snakes, monkeys, blue clouds, devils, Chinese opium dens, horrible people, vicious demons which make faces at him, may be pictured before his eyes, so soon as the light is turned off, and he closes his eyes.
31. The spirit of investment, speculation and enterprise is active, leading him into dangerous enterprises. The opposite sex is likely to consider him crazy, but he thinks he is magnetic. He may be possessed by a strong desire for wealth, position and leadership, bordering on mania. He wants to become a master of great transactions. Sometimes he is a selfish matrimonial fortune hunter, but he is always a gruff, rusty, surly fellow, with a bear-like disposition.
32. It is difficult for them to study, think, and memorise, or to recall knowledge.
33. Some of them are called "people of mystery", and people are afraid of them. They have a husky voice, an inflamed face and a tremendous appetite. They may starve themselves and then at another time eat to excess. They stammer and stutter when they talk, and have very little control of their tongue, vocal chords, nerve impulses, throat action and emotions.
34. One fluorine deficient patient said that there was a blue electrical storm at work in his very brain.
35. The fluorine deficient patient takes an interest in unusual things, mysterious teachings and occupations, astrology, magnetism, biochemistry, physical geography, magic, spiritualism, demonology, toxicology and the studies of weather, wind, currents or diseases. Motion disturbs him. When he travels, dances, or swims, or swings, or looks at moving objects, he becomes nauseated. His ability to use words, pronounce and conform to phonetic laws of speech is lacking for he mispronounces and uses wrong words in speech and writing constantly. His judgement of motion, speech, time, location, sound, throwing, or of catching anything is faulty. His love for the opposite sex amounts to mania.
36. Most patients dislike noise, but the fluorine deficient patients likes it. Most patients like to swim and bathe, the fluorine deficient patient dislikes both. Even a washing the hands often produces an almost insane itching.
37. The fluorine deficient patient is psychic, mystical and amatory. Some cephalic glands are negatively affected.

#### **vii. HOW TO REDUCE FLUORINE IN THE BODY.**

1. **Foods:** Omit foods rich in fluorine and calcium.
2. **Climate:** No effect.
3. **Mental exercise:** No effect.
4. **Physical exercise:** No effect.

#### **viii. HOW TO INCREASE FLUORINE IN THE BODY.**

1. **Foods:** Eat foods rich in fluorine and calcium.
2. **Climate:** No effect.
3. **Mental Exercise:** Very little effect, except possibly by associating much with the opposite sex.
4. **Physical Exercise:** No effect.

#### **ix. PEOPLE WHO REQUIRE FLUORINE FOODS**

1. **In abundance:** Neurogenic, Pathetic, sometimes Marasmic, because of excessive fluorine consumption: Carboferic, Lipopheric, Atrophic, Pargenic.  
All tubercular people; all those who have suffered from syphilis are in the greatest need of a high fluorine diet.
2. **Very Little:** Exesthesic, Nervi-Motive, Calciferic, Sillevitic.

#### **xi. INFLUENCE OF AN EXCESSIVE AMOUNT OF FLUORINE FOODS ON**

1. **Health:** It disturbs health, by interfering with the normal distribution of the blood, so that some parts become hyperaemic while other parts are anaemic. The blood flows to the brain and the more solid tissues become escharotic.
2. **Disposition:** It becomes amatory, surly, sensual, sullen and suspicious.

#### **x. INFLUENCE OF A DEFICIENT AMOUNT OF FLUORINE FOODS ON**

1. **Health:** The deeper structures become involved, and the health is thereby disturbed.
2. **Disposition:** Morose, mystical, eccentric. He has fixed moods. He is mistrustful. He has disorderly habits. He is awkward in movement, in carriage, finger movements are uncoordinated. He is a poor but daring surgeon. If he falls he lands like a heavy cement bag, breaking his bones.

#### **xi. DISEASE TENDENCIES OF PEOPLE IN WHOM FLUORINE IS IN EXCESS.**

1. Decay of bone, caries, ulceration, trouble with bone teeth and hair.

#### **xii. CHEMICALS IN FOODS THAT PEOPLE WITH EXCESS FLUORINE SHOULD**

1. **Eat:** Any foods except those named below.
2. **Avoid:** Hydrocarbons, oily and fatty foods and foods rich in fluorine.

#### **xiii. HELPFUL HINTS.**

1. Degenerative and suppurative processes and pus formation are always best managed and overcome by graduated altitudinal ascension and a high fluorine diet.
2. Atrophic, Pargenic, tubercular, scrofulous people, always suffer from low oxidation and combustion.
3. Absolute fluorine starvation results in defects, alterations, lesions and atrophy, because of changes in periosteal and osseous structures.

- The function of the bone marrow becomes disturbed, which, in turn interferes with the manufacture of the red blood corpuscles.
4. The carob bean is valuable when a patient suffers from Pargenic impurity, low oxidation and combustion.
  5. Sarsaparilla tea acts favourably upon Pargenic impurity.
  6. Berberis (Mahonia) aquifolium, or the roots of Oregon wild grapes, contain a principle that counteracts the miasm that thrives in the system of the Pargenic.
  7. Hop tea, drank daily between meals, is healthful.
  8. Sulphur containing foods prevent the destructive, suppurative, inroads of the Pargenic miasm.
  9. Cod liver oil contains phosphorus, cholesterin, iodine, bromine, trimethylamine, and also a certain oils - all of which increase red blood corpuscles and improve the function of oxidation and combustion.
  10. Washing the body in salty soapsuds made of castile soap, into which water has been added, sodium chloride and sodium carbonate and also some sulphur, is very beneficial, and the hotter the bath is, the more beneficial it is. The bath should be as high as 130 degrees Fahrenheit or 55 degrees centigrade.

#### **xiv. WHEN A FLUORINE DIET IS NEEDED.**

1. Decay of bones and teeth; enlargement of veins.
2. Poor eyesight; hypertrophy of the spleen.
3. Tendency to diphtheria; falling of the hair; scalp disease.
4. Induration; hard nodules form.
5. Tumors in the liver, spleen, bones, or integuments.
6. Stones form in the kidneys, or in the ducts of the salivary glands, or calcareous tumors form and calcify in some of the organs.
7. Hard crusts form in the nose; there is catarrh of the urethra.
8. Calcareous deposits form in the bladder or in the mammary ducts.
9. Bone tumors may develop in the vertebral bones.
10. Bony growths may appear on the outside of the skull, or form in the ears, and interfere with the function of hearing.
11. Tumors may form in the cerebellar structures, and interfere with coordination, leading eventually to incurable paralysis.
12. Sclerotic deposits form; there is degeneration of the pleura.
13. Hyperplasia may develop in the tissues.
14. The prostate gland may harden, shrink and suffer.
15. The sexual secretions may thicken, resulting in sterility.
16. Calcification may take place in the meninges of the brain and lead to insanity.
17. Neoplasm may form in the larynx.
18. The dura mater in the brain or spinal cord may harden and give rise to serious ailments.
19. The voice may become rattling and bronchial.
20. Lack of fluorine results in alterations, lesions and defects in structures such as: clubfoot, deformity, atheroma, onychia, deformed fingertips or teeth, horny nail layer, osteophytes, chondroma, bone granulation, bulbous enlargement in joints; altered ossification, spinal curvature, scirrhus, carcinomas, osteides in the pulp cavities of the teeth, ossification of the tendons and ligaments, disappearance of bone, enlargement of bone, baldness and scaliness of eyebrows, ophiasis, destruction of eye structures, tuberculosis of some kind.
21. Scaly psoriasis, wasting of the retina, enlargement of the uterus, with induration.
22. Decubitus with cerebral lesions, falling of the hair in bunches, ugly warts, the bones may crumble like wall plaster and break.
23. Pus formation, suppuration, ulceration, degenerative processes, dilation of blood vessels, callus, puffy obesity, blindness, parasitic eye disease, mucous and ammonia in the urine with low specific gravity of the urine and of the blood.
24. All sorts of degenerative, suppurative, and ulcerative processes.
25. Matting of the hair, uncontrollable appetite.
26. Rheumatism in the bones characterised by numbness.

27. Swelling here, sclerosis there, suppuration at this place, ossification in that.
28. Greasy perspiration, ugly sties.
29. Oxidation and combustion are always poor in Fluorine deficient patients.
30. Fluorine deficient patients may suffer from poor control of motion and movement.
31. A torpid brain, or great difficulty in getting the mental machinery to work.
32. Tendency to a preoccupation of the mind with sensual scenes; premature sexual instincts and practices, in a boy, a girl, or an adult.
33. Gluey, swollen, inflamed, red or granular eyelids.
34. Fear of insanity.
35. Hearing of imaginary voices.
36. Illusions or hallucinations.
37. Unbearable pains and aches.
38. A dirty-yellowish-oily skin pigment, when it is cold, hot, or moist.
39. A clammy, greasy, puffy, thick or scaly skin.
40. Difficulty in waking up, or in arousing brain and brain functions in the morning.
41. Aggravation from motion, travel, dancing, swinging, rocking.
42. Contradictory tendency to self-condemnation and great conceit.
43. Backwardness in manners, actions and movement clumsy.
44. Bluntness in speech; a voracious appetite.
45. Unusual errors in conversation, speech writing, pronunciation, or in the use of words.
46. Puffy or swollen body parts, especially on the head, neck, skin, and lower abdomen.
47. Flesh of chest, chin and forehead tight.
48. Objects appear to be moving away when the patient is looking steadily, for a brief time.
49. Bones that break easily from a fall, blow, or injury.
50. Bone fractures heal slowly.
51. Ulcerous bones; sensuality.
52. Loose, tender, and spongy gums.
53. Saliva runs from the mouth when talking or whistling.
54. Seemingly (to the patient), the brain and nerves are hot, while the body feels colder.
55. Great cerebellar pulsation with inflammation in hot weather.
56. Very sensitive to pressure on the head in hot weather.
57. Great susceptibility to the ill-effects of vaccination.
58. Defective teeth in youth; matted hair; a scurvy scalp.
59. Great aversion to darkness and superstitious fear.
60. Great fondness for light.
61. Granular catarrhal eyelids; pain in the eyeball.
62. Bilious or nervous spells when drinking cold water.
63. Sticky eyelids, and a greasy exudation from the skin on the head, face and neck.
64. Itchy after perspiration, or bathing, with aggravation of symptoms.
65. Thick, yellow discharges.
66. Swelling of the joints, before a storm.
67. Itching vesicles filled with yellow matter and watery pus.
68. Horrible dreams and visions when he closes his eyes.
69. Heat prostration in hot weather, or from hard work.
70. Almost temporary blindness from stooping.
71. A mustard-like, slimy, coating on the tongue.
72. Brown, yellow spots on the skin.
73. Ailments with the nails, eyelashes, eyebrows, bunions, ingrown toenails, ugly warts, aggravation after sleep.
74. Hair, whiskers, eyebrows and eyelashes bend inward, upward or in any other abnormal direction; nails grow curled upwardly (spooning).
75. A greasy exudation at the corners of the eye.
76. Puffy lips, neck, head, limbs, eyes in the morning.
77. Pain in the sutures of the bones.
78. Great pressure behind the eyeballs.
79. A cold, drafty sensation under the eyelids.
80. A red, swollen tip of the nose.

81. Deep, heavy, wheezy respiration.
82. Numbness of the hands; protruding eyeballs.
83. Soreness of scars, or of corns.
84. An odour or smell in the nose like that of a pigsty.
85. A taste of decay in the mouth.
86. An odour of decay is emitted from the body.
87. Clammy sweat with an odour of decay on the feet or almost anywhere.
88. Sallow complexion with mucous tubercles and squamous eruptions.
89. Greater tendency to deafness in the morning, yet deafness passes off after the head is exposed to daylight.
90. Great sneezing spells; gums bleed easily; putrid sputum.
91. Troubled hearing, eyesight, taste and smell.
92. Unusual dread of great heat and cold.
93. Hallucinations caused by irritation, infiltration, or ulceration of the peduncles in the brain, the pineal gland, the pituitary body, the Pacchionian body, the sensorium cerebelli, the venous sinuses in the brain, the pericranium and meninges in the brain and spinal cord.
94. Blood darker than usual is a very typical sign. This produces a dark tongue, and is caused by poor combustion in the bones and brain.
95. Aggravation from cold applications.
96. Greater thirst as the day advances; yet ice cold drinks aggravate symptoms.
97. A disorderly mind.
98. Answering questions slowly when the doctor is questioning him in regard to his ailments.
99. Proneness to argue with the doctor about his ailments, or a tendency to believe that no one can be trusted.
100. There are many transient or indirect symptoms, such as:
  - Seemingly dormant energy.
  - Sulky, happy, miserable, fearful, sad, moods by turns.
  - A deep interest in psychic phenomena, mystery, magnetism.
  - A milk diet makes them sick or it makes them bilious, this is an almost definite symptom.
  - Superstitious fear of ghosts, hell, demons, heat and cold.
  - Crampy legs; irregular teeth.
  - Faintness and occasional unconsciousness.
  - Tottering.
  - An unusual appetite for tea.
  - Decayed teeth.
  - Sensitiveness to odours, fumes, and gases.
  - A tremulous bronchial, or nasal, voice.

**xv. PRINCIPAL FLUORINE FOODS (ALPHABETICALLY ARRANGED).**

The water mentioned below is likely to contain bacteria, algae, cancer forming substances and minerals that do not belong in the human body.

**FOODS RICH IN FLUORINE**

<b>FOODS</b>	<b>ASH CONTENT</b>	<b>FLUORINE</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Broth, cartilaginous	High	High	No	Hot/cold
Cabbage	High	Medium	Yes	Raw
Cabbage, red	High	Medium	Yes	Raw
Cauliflower	Low	Medium	Destroyed	Cooked
<b>Cheese:</b>				
Goat	1.74	0.66	Yes	Unheated
Goat cottage	1.74	0.66	Yes	Unheated
Goat whey	Very	Very High	No	Unheated
Roquefort	High	Low	Yes	Unheated
Cod Liver Oil	High	Medium	Yes	By itself or with juice
Colax	High	Medium	Destroyed	Prepared
Egg Yolk	1.9	Medium	Yes	Raw
<b>Fish:</b>				
Black Bass	1.60	Low	Destroyed	(All fish (steamed,
Bluefish	1.60	Low	Destroyed	(cooked or
All greenish fish	1.60	Low	Destroyed	(baked.
Garlic	Medium	Medium	Yes	Raw/cook slowly
<b>Kumis:</b>				
Cow's	0.71	Low	Yes	Unheated
Goat's	1.74	0.66	Yes	Unheated
Mare's	High	Low	Yes	Unheated
Sheep's	Medium	Low	Yes	Unheated
<b>Milk:</b>				
Goat	1.74	0.66	Yes	Unheated
Human	0.45	Low	Yes	Natural
Sauerkraut	Very High	Medium	Yes	Raw
Seagrass	Medium	Medium	Destroyed	Steep and drink juice
Spinach	Very High	Medium	No	Cook 3 minutes
Sprouts	Medium	Medium	Destroyed	Cooked slowly
<b>Water:</b>				
Green sea	High	High	In germs	Fresh
Ocean	Medium to High	Medium	In germs	Fresh
Watercress	Medium	Medium	No	Raw.



## 6.xiii. IODINE.

### i. IODINE IN THE MINERAL AND VEGETABLE KINGDOMS.

1. Iodine is made from kelp, or from the ashes of seaweed. Iodine is found in seawater, and in some mineral springs. It occurs in cod liver oil, in most shellfish, and in all marine plants. Iodine is found in compounds with other metals, and these are called Iodides. The word "Iodin" means - violet, or light violet.

### ii. IODINE ITS NATURE AND CHARACTERISTICS.

1. Iodine is of a crimson purple colour. Iodine is slightly soluble in water, but highly soluble in alcohol and ether. When it comes in contact with phosphorus, it becomes inflammable, even spontaneously.
2. Iodine is a nonmetallic element with a high metallic lustre. It is blue-black in colour and soluble in ether. Its fusing point is 107 degrees centigrade.
3. Iodine emits a smell that closely resembles that of chlorine, especially when it vaporises and condenses. Iodine stains cloth yellow, and this tinge may be removed by a potassium iodine solution. The test of iodine is starch. This test is so positive and so delicate, that the slightest speck will determine the presence of starch, or conversely the presence of iodine.

### iii. FUNCTIONS OF IODINE IN THE HUMAN ORGANISATION.

1. Iodine is a skin irritant in its elementary state; potassium iodide ranks as a specific in tertiary syphilis. It is considered an excellent remedy in sclerosis of the liver and in chronic bronchitis. It acts as an irritant.
2. It stimulates the glands to greater action, especially the lymph glands. When administered in strong doses, depression, emaciation, and atrophy follow it.
3. Iodine is very important for the thyroid gland; it is required for the manufacture of its hormone thyroxine, which is invaluable in order to maintain many functions, including normal brain action. Iodine neutralises certain toxins produced in the human body.
4. Pharmaceutical (inorganic) iodine preparations do not have the same effect upon the function of the body as that iodine which is a natural part of food and tissues. Iodine deficiency is a direct cause of goitre and an indirect cause of defective bone metabolism. When the thyroid gland cannot obtain natural iodine together with other substances needed for manufacture of its secretion, its function is depleted and this results in goitre.
5. The thyroid gland in conjunction with the parathyroids continually pours hormones into the blood, which enhance the assimilation of calcium, silicon, fluorine, chlorine and other salts. When the thyroid gland does not pour adequate quantities of hormones into the bloodstream, these salts are not assimilated properly.
6. Four small glands, the parathyroids, are located within the thyroid, and produce secretions that specifically affect the assimilation of calcium in the bones. When there is deficiency in parathyroid secretion, bone metabolism is weakened, as is the nervous system, including the brain. Then the body cannot assimilate, utilise and hold the salts needed for the bones. Pickenrill demonstrated that this insufficiency in children leads to defective teeth and bone metabolism. He proved that, when the thyroid and parathyroid glands are removed from an animal, that animal is not able to assimilate enough of certain vegetable salts needed by the bones and teeth.
7. He concentrated on calcium after the removal of these glands, and found that this salt was now lost through the intestinal secretions; he also found that the alkalinity of the saliva was reduced and that the salivary glands became shrunken and weakened. The secretion of the thyroid and parathyroid glands assist in the neutralisation of certain toxins that are likely to enter the blood through the intestinal walls, such as those produced by decomposition and putrefaction of particular albuminous foods. These toxins enter the blood from the intestines, and when they pass into the head, they will adversely affect the brain, nerves, and cell activity.

A man who lives mainly on starches, fats, meats, eggs, or albuminous food in general, and does not eat food that is rich in iodine, weakens his thyroid gland. Albuminous toxins will affect his brain and nerve tissue. These toxins, instead of being neutralised by thyroid secretions, are permitted to enter the brain, to accumulate in the blood, until, eventually, it results in auto-intoxication of the body, of the brain or of both.

8. Ushenko, an able surgeon, found that after removal of the thyroid and parathyroid glands, urinary nitrogen and phosphorus first increased; and as the condition progressed, urinary phosphorus and nitrogen diminished immediately before death. He found that the constructive processes in the body were greatly affected and that the metabolism of tissues, which contain phosphorus and nitrogen, were extremely disturbed. Certain vegetable salts were not assimilated; creatinine was considerably diminished; and purine increased alarmingly increased, as did the amino acids and certain decomposition products.
9. People who eat foods that are rich in iodine do not suffer from goitre, scrofula, brain intoxication, nervous ailments or defective bone and brain metabolism to the same extent as people who live on meat, starchy and chemically preserved food products, or on albuminous and demineralised foods, because such foods do not contain iodine, and these albuminous and demineralised food products inflame and irritate the thyroid gland, overwork secretions and fill the body with decomposition products until the health suffers; the brain and nerves are poisoned, the tissues are filled with destructive acids, toxins and gases; the alimentary tract is in a state of corruption and until all of the iodine and other toxin destroying material is used up in the body to such an extent that the toxin destroying glands do not have the basic materials for their function. Then, there will be serious disease, incurable chronic disorders, and lastly, death.
10. Because of the special role of the thyroid gland in growing children, an albuminous diet is very likely to produce disorders of some kind, as a child cannot take care of albuminous toxins as efficiently as an adult, nor can it eliminate them as easily from his system.
11. Older people also are not able to neutralise albuminous toxins, nor are they able to counteract the production of decomposition, or eliminate such toxins and waste matter from their systems as efficiently as younger people, because most of their poison destroying secretions, including the thyroid gland, are weak.
12. Iodine seems to be the sanitary officer and brain protector, with its headquarters in the thyroid gland, to guard the brain, destroy the toxins that are harmful to the brain, to increase assimilation of certain salts and establish more normal metabolism, and to promote the oxidation of the brain. Moreover iodine, or the thyroid secretion thyroxine, has another important though unknown function to perform. It is related to phosphorus and stirs the brain into more vigorous action, promoting oxidation in the brain, increasing circulatory activity, acting on certain lymphatic glands and upon special sensory nerves.
13. Iodine, as a part of thyroid secretions, increases the rate of the pulse, lowers arterial pressure, increases respiration and the demand for oxygen, increases the quantity of urine and the assimilation of certain organo-metallic salts, especially calcium. There is a close connection between the lack of thyroid secretion, or iodine, and Myxoedema, which disease is known to diagnosticians by an unwieldy body, a thick scaly skin, by slow muttering speech, by mental torpor; by mucous collection in the connective tissue; by destruction of the thyroid gland; by flabby tissues; soft bones, a mentally dull expression and excessive discharge of saliva from the mouth.
14. The iodine element has principally to do with the circulation and neutralisation of particular toxins. A diet high in iodine increases specific aspects of the recuperative curative power of the system.
15. When Iodine is lacking, sores and ulcers occur more readily, and are more difficult to cure. The thyroid secretion has its effect upon the lining of the uterus, upon the lining of the heart, and upon the intellectual function and on the brain in general.
16. Iodine possesses germicidal properties. It retards the growth of microorganisms. It possesses the power of neutralisation of particular

damaging and albuminous toxins. As long as the thyroid gland is not normally developed, and not normally active in the child, normal growth cannot take place, and there is damage to tissues due to a build-up of toxins. While iodine is mainly contained in the thyroid gland and in the secretions of the thyroid gland, it also finds its way to a great many other tissues and fluids, although never to any great extent. Traces of iodine are found in some tissues, in the perspiration, in the tears, in the saliva, in the milk, and in some of the discharges from the excretory organs. The effect of thyroid extract supplementation is of limited benefit to the human body.

17. The natural secretions of a person's thyroid gland can neither be easily nor completely replaced. A diet high in iodine always increases oxidation, reduces bodily weight, helps to break down fat and protein, creates a greater demand for oxygen, increases the assimilation of organo-metallic salts, augments the urinary secretion of nitrogen and phosphorus, enhances the combustion of fat, increases the elimination of carbon-dioxide, and has many other interesting effects upon various organs and functions.
18. In cretinism the results of the administration of thyroid extract is often remarkable. Osler says: "Within six weeks, a poor, feeble-minded, toad-like caricature of humanity may be restored to bodily health". Indeed, so important is thyroxine secretion, that if it is lacking in a boy or girl, that same boy or girl cannot become normally developed in bone, brain, and function.

#### **iv. CONSTITUTION IN WHICH IODINE IS INHERENTLY**

1. **Excessive:** None.
2. **Deficient:** Almost all people, with the exception of Calciferic, Oxypheric and Myogenic. Even these very often have a deficiency of iodine, simply because they are principally living on an iodine free diet.

#### **v. SYMPTOMS WHEN IODINE IS EXCESSIVE.**

1. The patient is neurotic and abnormally concerned about the future. He becomes highly nervous in disposition and overly concerned about conditions, plans, prospects, ailments, work, movement, prosperity, adversity, happiness, possibilities; in fact about anything that relates to his future or to the future of his immediate friends. This results in a hyperaesthetic state of the nervous system and cardiac neurosis, and a positive dislike to anything that is rugged, thorny, sharp, barbed, horny, pointed, rough, fanged, tusked, jagged, toothed, such as fish, birds, or animals having spines, teeth or bills; or such tools, instruments or knives, stones, swords, lancets, saws, needles, thorns, fangs; or, in fact, anything else that is rough or edged. There is outward pressure behind the eyes, with protrusion of the eyes and painful pressure in the eyes. Distant vision is improved, but vision at close range is poor.
2. The linings of the organs are very sensitive and the heart, eyes and sexual system become involved. The patient prefers to lie on the right side when asleep, otherwise the heart gives problems.
3. There is continual worrying and fear over the condition of her heart, the condition of her generative organs and her eyes, that remains with her day and night.
4. The endocardium, the retina, the endometrium, and the sensitive retinacula, are in a state of tension, great sensitiveness, hyperirritability, vibratory irritation and hyperalgesia.
5. Oversensitivity to touch (hyperaphia) is another mental symptom of the excess of iodine.
6. Abnormal nervous restlessness and emotional agitation is still another symptom.
7. When the weather changes, the nerve ends in eyes and eyelids feel strange; it feels as though there is something tickling and irritating the eyes and eyelids, which is nothing else than irritation of the nerve endings in the sensitive structures of the eyes.

8. Morning headache in the lower back of the head, which moves to the top of the head, to the temples, and which settles - usually in the left - eye, is a common complaint.
9. Exophthalmia, neurosis, psychoneurosis and hyperaesthesia develop more and more as the case becomes more chronic.

**vi. SYMPTOMS WHEN IODINE IS DEFICIENT.**

1. Screaming during sleep, tendency to cry unnecessarily.
2. Saliva runs from the mouth; there is a great thirst most of the time.
3. Gasping from lack of air, feeling as though suffocating.
4. Lameness from motion; stiffness in the neck muscles; tension in the arms; throbbing in the brain; numbness in the fingers.
5. Stinging sensations in the temples, with alternating waves of cold and heat in various areas of the skin.
6. A strong conviction that something has been overlooked, neglected, or forgotten; cardiac palpitation.
7. Sensitivity to the sun; childishness.
8. Restlessness, shyness, nervousness and fidgeting; cannot continue to do anything for long.
9. A tendency to roll the eyes and squint.
10. Muttering speech.
11. A tendency to walk around buildings and search in corners, hidden places, waste baskets or drawers, for something; i.e. they appear childish in action, busy with trifles, pay attention to foolish detail or objects, as if they are becoming feeble-minded. This is due to the tissues of the brain being altered degenerated, softened or decayed; the brain becomes ineffective and cannot act. He has a clumsy gait, and walks into things. He may start walking with an awkward hop, or with clumsy jumping, or with a careless run, as though his motor nerves are not functioning properly.

**vii. HOW TO REDUCE IODINE IN THE BODY.**

1. The only way an excess of Iodine can accumulate in the body is through the ingestion of inorganic Iodine; people normally do not have an excess of iodine.

**viii. HOW TO INCREASE IODINE IN THE BODY.**

1. **Foods:** Eat foods rich in Iodine.
2. **Climate:** Live at a high altitude.
3. **Mental Exercise:** Use mental effort, or effort of will.
4. **Physical Exercise:** Take on a regular exercise and physical development program.

**ix. PEOPLE WHO REQUIRE IODINE FOODS**

1. **In abundance:** Exesthesic, Neurogenic, Pathetic, Carboferic, Hydripheric, Lipopheric, Nitropheric, Pallinomic, Atrophic, and Pargenic. All dimwitted and silly childish people. All people who eat a lot of albuminous foods.
2. **Very little:** Calciferic, Sillevitic, and Oxypheric.

**x. INFLUENCE OF AN EXCESSIVE AMOUNT OF IODINE FOODS ON**

1. **Health:** Favourable.
2. **Disposition:** Favourable.  
The fact of the matter is that it is most unlikely that you will get an excessive intake of iodine through food. The only time there is likely to be an excess of iodine, is when a person uses drugs that are high in iodine. Of course it would be possible to place a person on a high iodine diet and keep him on that diet until there is an excess of iodine, and in that case it would have a bad effect, both upon health and upon the disposition.

### xi. INFLUENCE OF A DEFICIENT AMOUNT OF IODINE FOODS ON

1. **Health:** Unfavourable.
2. **Disposition:** Neurotic.

### xii. DISEASE TENDENCIES OF PEOPLE IN WHOM IODINE IS IN EXCESS.

1. Intense burning and itching; cardiac palpitations.
2. Ailments of the mucous membranes; loss of weight.
3. Atrophy of the breasts, wasting of the arches.
4. Irritation of the thyroid gland, emaciation, sneezing.
5. Running of the nose, frontal headache.
6. Iodine diseases are always neurotic, alternating and unilateral, usually on the left side of the body, and the ailments are usually also in the heart lining, in the linings of the uterine linings, in the retina, and all the sensitive retinacula, in the sensory nerves, plexuses and sensory nerves, in some of the motor nerves, in the eyes, especially the left eye, also in the thyroid gland.
7. Constriction of the throat, oedema of the tongue.
8. Casts and albumin in the urine; increase of urine.
9. Elevation of the temperature; gastric colic; dizziness.
10. Shortness of breath, faintness.
11. Progressive loss of weight through excessive oxidation and combustion of fat; prostration; increased pulse rate.
12. Swelling of the throat; optic neuritis.
13. Circulatory weakness, hurried respiration.
14. Cerebral disorders, nocturnal neurotic habits.
15. Alternating psychotic moods, insomnia, great restlessness, headache, hyperalgesia, endocarditis, retinitis.
16. Hemialgia, usually in the left hemisphere; hyperaphia.
17. Endometritis; hypererethism, haemianopsia; migratory neuralgia; presbyopia; retinitis albuminurica; albuminuria.
18. Nightly toothache; rheumatic ophthalmia; hemidrosis.
19. Excessive alternating hunger and thirst, bordering on disease, with alternating aversion for food and drinks.
20. Chordee without sexual desire is another common experience of the iodine excess patient.
21. Nervous palpitations of the heart, accompanied with rheumatism in the neck and shoulders, with a tingling in the fingertips, perhaps even rheumatism in the fingers; uterine rheumatism, cardiac rheumatism, rheumatism of the head or of the eyes, or of the heart, or nervous rheumatism. Of course it is not true rheumatism, although most patients and a many doctors call it rheumatism. The iodine patient's rheumatism is in the nerves, it is neuralgia or neuritis, it occurs in the sensitive structures and is always alternating and unilateral.

### xiii. CHEMICALS IN FOOD THAT PEOPLE WITH EXCESS IODINE SHOULD

1. **Eat:** Albuminous foods.
2. **Avoid:** Iodine containing foods.

### xiv. HELPFUL HINTS.

1. People who are anaemic, diabetic, very old, highly emotional, or those who have a tendency to albuminuria, or those in whom the carbohydrate metabolism is dominant, as, for instance, the Nitropheric, or those who are sentimental and have a weak heart mechanism, are highly sensitive to the effects of iodine, whether it be a lack or an excess of iodine, or whether it is administered in drug form, or in its organic food form.
2. The vagus nerve, and many highly sensitive nerves, ganglia and plexuses are extremely responsive to the influence of iodine. An excess of iodine results in cardiovascular, extensive, contractive and neurotic ailments.
3. Iodine has a semi-paralytic effect upon the upper eyelids. It produces tremor in the heart and nerves and a high pulse rate, ranging from 95 to 135 beats a minute.
4. The iodine deficient patient always suffers from cardiac palpitation when he starts working, or walking, or when he otherwise exerts himself, even

- heavy breathing is likely to produce palpitation of the heart. His brain is in a state of deterioration, so that it can no longer maintain its mental function. It is being degenerated, and in turn the patient is degenerating.
5. The iodine deficient patient craves a change of scenery, a change of work or a change of study every minute of the day. Occasionally he is extremely excitable and at all times he is fidgety, though his restlessness could be called lack of being settled, for he makes a thousand and one little motions an hour. As time goes by he becomes a pronounced hermit in disposition. He can never keep his eyes movements, fingers and feet still, nor can he ever sit in a particular position for any length of time. If he is suddenly placed in a high elevation, it produces respiratory oppression and cardiac palpitation.
  6. The deficient patient suffers from atrophy of the brain, amyloid degeneration, dropsical degeneration, deterioration in nerve and brain tissue, fatty degeneration and anaemic disintegration.
  7. He suffers from softening of the bones or of the oesophagus, chronic endarteritis, sluggishness in brain function, inability to learn lessons or pass examinations successfully, brain starvation and prostration, resulting in mental deficiency and enlargement of the lymphatic glands, due to the degenerative processes. The lymphatic glands become soft, doughy and moveable. The brain in the Iodine deficient patient undergoes alteration and degenerative changes take place, evidently because toxins in the blood are not neutralised as the blood enters the brain and because of defective brain tissue oxidation. Iodine influences oxidation of the brain and brain activity in some mysterious way and may also perform other functions that indirectly favour thought, reason, understanding, perception, volition and impulsion.
  8. The iodine deficient patient suffers from sniffy head colds, difficulty in pronunciation, or any other condition or degenerative process, which may be caused by iodine starvation. Cretinism, Myxoedema, goitre, mental degeneration, stunted growth and other ailments are closely related to iodine starvation. The congenital or degenerative cretin, the mental degenerate, with his thick neck, short arms and legs, degenerate, doughy and paste-like brain, short stature, flabby tissues, large and flabby abdomen, thick lips, protruding tongue, large flabby face, spongy goitre, appears to be the outcome of congenital iodine starvation. The thyroid gland is always lacking wherever there any kind of mental deficiency.
  9. The heart of the iodine deficient patient is either excessively slow or excessively fast, for iodine seems to affect the heart's inhibitory nerves, and also the depressor nerve centre in the medulla.
  10. There is a throbbing of the throat, or of the thyroid gland, or in the centre of the brain (Circle of Willis). There is throbbing in the hepatic, gastric, or splenic arteries, or in the temples and in almost all of the principal arteries. As soon as there is throbbing in the throat or in the thyroid, we know that iodine is lacking.

#### **xv. WHEN AN IODINE DIET IS NEEDED.**

1. When the thyroid gland or the throat is swollen, or when there is a goitre and the tissues are flabby.
2. When the skin is pale, doughy, dry, hot, cold, scaly; alternatively when the abdomen is bulky, and when the head is excessively large, and the body is puny.
3. When the mind is dull; when salivation is frothy.
4. When the arms are numb; when scars break open.
5. When there is a pressure in the heart, chest or head.
6. When there are palpitations upon ascending a stairway or when being suddenly placed in an elevated position, with oppressive breathing; when the urine is turbid, acrid, thick, scanty, violet, yellowish green, red like a broth, green, having a strong odour, and perhaps albuminous or bloody, or has an earthy, violet sediment on standing.
7. When there is throbbing in the arteries, neuralgic pains in the heart lining, or in the uterine lining, or in the retina, the head, diaphragm, or in some of the plexuses.
8. When sweet and putrid tasting saliva alternates.

9. When the symptoms are alternating; when the ailments are unilateral, usually in the left side.
10. When there is hurried, short respiration; when there is a dull sensation under the scapulae, with numb fingers, or swelling of the feet or toes.
11. When there is a preference to standing and moving to sitting and lying.
12. When the sleep is deep before midnight, but restlessness after midnight.
13. When there is occasional severe prostration; when there is a desire to wash the head, face and neck in ice cold water; when there is a tendency to clutch ones' throat.
14. When perspiration from exertion is sticky, the glands are enlarged, there are stinging migratory pain sensations.
15. When the skin is impoverished; or the chest is oppressed.
16. When the pulse is either full, slow, rapid or weak.
17. When an excessive hunger or thirst alternates with its absence.
18. When there is crying after meals; when the brain is clear when walking or exercising, but dull when at rest.
19. When there is fear that the doctor may discover some incurable hereditary disease upon examination.
20. When there is fear of looking behind, because the patient imagines there may be something terrible behind him.
21. When the child's writing is very irregular and it is awkward in handling things; when has a shy disposition.
22. When the complexion alternates between bluish, earthy, pale-gray, pale-yellow, brown and red.
23. When there is fluttering in the ears, together with a sensation as if warm waves were passing through them; when there is a tendency to squint.
24. When there is a restless, rolling motion of the eyeballs, accompanied with pupillary dilation, producing flickering before the eyes, perhaps occasional dimness of eyesight, and a tendency to press the eyelids down with the fingertips to improve the visual function.
25. When there is a brief talking spell, followed by stupor, numbness, languor, muttering, screaming, which is followed by sleep.
26. When there is an enormous growth in the brain and head structures.
27. When there grinding of the teeth, dropping of the lower jaw, or a tendency to clench the jaws tight together.
28. When there is a great fondness for milk, as this relieves some of the symptoms, because it supplies the calcium that is lacking.
29. When there is a tenderness of the lower ribs and a flabby lower abdomen.

#### **xvi. PRINCIPAL IODINE FOODS (ALPHABETICALLY ARRANGED).**

<b>IODINE FOODS</b>	<b>ASH CONTENT</b>	<b>IODINE</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Artichokes.	1.0	Low	In seeds	Fresh
Carrots.	0.9	Trace	Yes if raw	Raw/cooked
Clams.	1.6	Medium	Destroyed	Broth
Cod Liver oil.	High	High	Yes	Emulsion
Crabs.	3.1	Medium	Destroyed	Cook/steam
Frogs Legs.	0.8	Low	Destroyed	Broth
Garlic.	High	Trace	In seeds	Raw
Grapes, green.	0.5	Trace	In seeds	Raw- chew seeds
Irish Moss.	Medium	High	Yes	Raw with food
Lobster.	2.2	Medium	Destroyed	Boiled alive
Mushrooms.	1.2	Medium	Destroyed	Boiled
Mussels.	1.9	Medium	Destroyed	Steam/boil
Oysters.	0.2	Medium	Yes	Raw(remove stomachs)
Pears, Bartlett	0.4	Trace	In seeds	Raw/dried
Pineapple.	0.3	Trace	In seeds	Raw
Salmon, smoked.	1.8	Medium	Doubtful	Smoked
Scallops.	1.4	Medium	Destroyed	Broth
Shrimp.	2.4	Low	Destroyed	Boiled
Sorrel.	High	Medium	?	Prepared
Terrapin.	1.0	Low	Destroyed	Broth
Turtle, green	1.2	High	Destroyed	Broth

## **6.xiv. SULPHUR.**

### **i. SULPHUR IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Sulphur is another word for brimstone.  
Sulphur is a nonmetallic, combustible, smoky, acid, fitful volcanic element that occurs in beds of clay, also in combination with certain metals forming sulphates and sulphides, and usually occurs in the vicinity of volcanoes.
2. Sulphuric acid is the king of all acids.
3. Most Sulphur comes from vegetables and volcanoes.

### **ii. SULPHUR, ITS NATURE AND CHARACTERISTICS.**

1. Sulphur is almost lemon coloured, although the colour varies somewhat in different countries, season and temperatures.  
Sulphur is a nonconductor of electricity.
2. It becomes a liquid between 111 degrees and 137 degrees centigrade. It solidifies again at 160 degrees and becomes a fluid, for the second time at 208 degrees and boils at 420 degrees.  
It becomes a vapour at 422 degrees centigrade.
3. Sulphur is sensitive to air currents, to atmospheric gases, electricity and is changed chemically when subjected to heat, cold, moisture, and other conditions. It is tasteless, but has a peculiar odour when melted, or when subjected to friction. It is remarkable for its allotropic character, or for its ability to unite with all the metals and nearly all the nonmetals, for its tendency to form crystals and for its capacity to exist in many forms and manifestations. Sulphur is insoluble in water, but is easily taken up by spirits of turpentine and by certain oils.
4. Sulphur is used in the manufacture of gunpowder, in vulcanising, in the manufacture of metals and of sulphuric and sulphurous acids. It is used in industry as a Sulphur gas; and is used in many forms as a medicine.
5. Sulphur is a strong disinfectant, it purifies.
6. Sulphur is not an element of strength.

### **iii. FUNCTIONS OF SULPHUR IN THE HUMAN ORGANISATION.**

1. Sulphur is contained in living tissue, being especially utilised in the construction of protoplasm. It is absorbed by plants as a sulphate. Sulphur promotes the flow of bile, but cannot alleviate pain. It has a particular effect upon the liver by promoting the secretion of bile.
2. A diet that is rich in Sulphur reduces the liver in a patient who suffers from enlargement of the liver. Sulphur food for that same reason is very valuable to stimulate the secretion of bile, and for the purpose of overcoming enlargement of the liver.
3. Sulphur foods act upon the cerebrum as a mild hypnotic, although its action is slow, for it requires from one to ten days for such a diet to act vigorously upon the brain. A man who eats Sulphur food to excess can, over a period of time, become sedated by its effect.
4. Sulphur is found in hair, nails and horny tissue. Keratin is a substance that is found in all horny tissue such as nails, hair and feathers. It is found in the epidermis of the skin. It is a mixture of many complex proteinous substances. It yields tyrosine and leucine when analysed in the laboratory. Keratin is found in the cornea of the eye. Keratin differs from proteins in general in the sense that it contains a high percentage of Sulphur.
5. Sulphur is present in the form of Sodium sulphate in many of the tissues and body fluids. Sodium sulphate is needed in the tissues as a detoxifier.



6. The human body contains nearly four ounces (115 grams) of Sulphur.
7. Free Sulphur is utilised by the physiological functions almost every hour of the day, although the amount that is used is not accurately known to science.
8. A Sulphur diet has a radical effect on the physiological and other functions causing certain bodily taints and impurities to be thrown to the surface of the skin for elimination. A Sulphur diet acts strongly upon the skin. The nature of Sulphur is such that it exerts a powerful influence on the internal organs, throwing taints, miasms, impurities etc. to the surface of the body. This results in congestion of the capillaries, veins, skin and nerve tissue at the surface of the body.
9. Sulphur is an uproarious element, agitative, expulsive and convulsive.
10. It acts as an angry undercurrent wherever it is present, producing explosions at the surface, as may be seen in volcanoes, beneath which the Sulphur element is at work. Sulphur assists evaporation and surface radiation of bodily heat, but it increases internal heat and organic gases in the liver, nerves, and sex areas of the brain and genitalia.
11. Sulphur heat and organic gases escape readily through the skin when Sulphur is abundant in the body, and when cold winds, cold water or cold moisture strike the surface of the body, but not otherwise.
12. A Sulphur diet has the power to force impurity to the surface of the skin, resulting in pimples and eruptions. Sulphur has a warming effect upon the skin, producing travelling waves of heat accompanied with ruddiness of the skin and greater action in nerve function.
13. Sulphur intensifies nerve action. It acts on every cell in the body.
14. It acts upon every drop of blood, and upon every nerve fibre and cerebral neuron, and yet its effect is like an angry undercurrent and a hypnotic sleep combined. It acts as an explosive and yet a hypnotic on nerve action, through the nerves, upon the nerve cells and upon the nerve endings. It acts slowly and cumulatively. It is a stirring dynamic element, acting like a volcano and compelling the expulsion of disease organisms.
15. About four percent of Sulphur is found in hair. Red hair has more Sulphur than golden hair. Golden hair has more Sulphur than sandy hair. Sandy hair has more Sulphur than light brown hair. Light brown hair has more Sulphur than dark brown hair. Black hair has the least proportion of Sulphur. It is possible to affect the hair colour through eating a Sulphur diet and certain Nitrogen or vegetable pigments.
16. A normal supply of Sulphur is necessary to regulate nerve impulses and to maintain a uniform temperature in the nerves, in the brain centre of the senses, in the nerves and plexuses of the sexual organs, in the spinal reflexes, in the optic centres, in the heat centres of the body, in the Median glands, in the oily secretions, such as the perilymph, endolymph, cerebrospinal fluid, neurolin in nerve and brain matter, the gonoblastic fluid, and others.
17. The mental outlook and nerve tension is high in Sulphur patients. Great sulphur consumption favours versatility, emotionality, adaptability, purification, but not strength.
18. Sulphur and Carbon, if used as a large percentage of additives in steel tools and instruments, makes them brittle and useless. Sulphur and Carbon have the same effect upon the human organisation and upon the brain. The diffusion of cells, the strength and durability of tissue, the power of brain for continued activity, the hardness, wiriness, endurance of bone and muscle are, qualitatively, not as great when Sulphur is excessive in the human organism.
19. But the qualities of nerve heat, of nerve tension, of the tone of the nerve impulses, of idealistic and romantic feelings, of the deeper emotions, impressionability, responsiveness and emotional tone, are greater when Sulphur is abundantly assimilated and utilised.

20. Sulphur is formative and life sustaining. It is the agent of emotional expression. It surrounds, supports, and enters into life and nerve processes. The ovum and the egg yolk are supplied with a liberal quantity of this life supporting, heat producing, neurolinic and formative element in an organised form. Dead Sulphur or inorganic Sulphur is of no value to an ovum, nor to an egg yolk. The ovum pays no attention to drug Sulphur. The Sulphur in the ovum could be called living Sulphur, which is also the case with the Sulphur found in the egg yolk.
21. Sulphur enters into and supports life in the budding protoplasm of the male and female reproductive principles. Without Sulphur the ovum would be useless, and so would the egg-yolk. Without Sulphur, no chick would be hatched, no infant would be born. "No Phosphorus, no thought", says the German philosopher. He might as well have added, "No Sulphur, no sensation, no communication of our inner feelings with body and matter, no sense, no life and soul expression". Without Sulphur, Phosphorus would soon burn out our brain, so that we would all end our lives in an institution.
22. Sulphur, however, is transformed, converted and completely reorganised before it enters into the workshop of thought and emotion, as a supporter and medium of expression of emotion and of nerve life.
23. Sulphur moreover, has a great deal to do with the phosphoropsychical processes and serves as the communicating medium between inner mental life and sensory physical states. Sulphur is the communicative regulative and magnetic medium of thought action, nerve impulses, psychical capacity, nerve conduction of the senses, and emotive transmission.
24. Lack of sulphur affects the life, the nerve and the expression of inner feelings and results in a peculiar kind of neurasthenia, psychoneurosis, enfeeblement of the mind, or psychocoma, which is very difficult to cure.
25. The lady with her ovoid shaped head, oval face, soft, velvety, warm and delicately rosy skin, with her elastic, wiry, wavy luxuriant, golden or light brown hair, her warm, glittering magnetic, intelligent, blue-gray or light hazel, soulful eyes; whose complexion changes with the varying weather conditions as readily as the Sulphur element, or like the chameleon changes its colours; who is electrical in touch, responsive, emotional, moody, intense, fond of luxuries, versatile, fanciful, tall and proportionate, beautiful, highly keyed, volcanic in feelings; elastic and firm, yet soft in tissue; graceful in movements, firm in joints, harmonious in build, graceful and stately in form, neat, tidy and particular; who among ladies, is the queen of beauty, proportion and youth - is like a harp with a thousand strings, and rules the hearts of men, has abundant Sulphur.
26. Sulphur is a poor conductor of muscular electricity, which is why it retains acid in the body.
27. Sulphur produces nerve, brain, skin and liver heat, and hence causes nervousness.
28. Sulphur causes sluggishness; people who have much Sulphur, rise late in the morning.
29. Exesthetic people cannot bear hardships, nor a rough life, they suffer first with cold hands, then warm hands; they suffer from heat, etc. So they must have pleasant environment.
30. Sulphur is an enhancer of subconscious activity, therefore Sulphur people worry without realising it.  
Sulphur increases:
  - a. Sensitivity,
  - b. Nerve, brain and liver heat,
  - c. Rouses the skin,
  - d. A dissatisfied mind.
31. Sulphur creates alertness and activity of the emotions.

32. Sulphur people like cold water baths (for the oxygen), to cool the nerves and to overcome sluggishness that accumulates overnight. They desire and need abundant fresh air.
33. Sulphur throws impurities to the surface, hence Sulphur people do not contract diseases easily.
34. The joints of Sulphur people are nearly always weak.
35. Sulphur helps to construct protoplasm, promotes bile secretion and facilitates the growth of hair and nails.
36. Sulphur favours surface heat radiation.
37. Sulphur increases the beauty of the complexion.
38. Sulphur regulates nerve impulses, and transmission of temperature.
39. Sulphur is found in the life substance, in the neurolin, and in cerebrospinal fluid.
40. Sulphur assists the tone of the psychical functions.

#### **iv. CONSTITUTIONS IN WHICH SULPHUR IS INHERENTLY**

1. **Excessive:** Exesthesic, Nervi-Motive.
2. **Deficient:** Calciferic, Carboferic, Nitropheric, Pargenic; also Exesthesic, because of excessive Sulphur consumption.

#### **v. SYMPTOMS WHEN SULPHUR IS EXCESSIVE.**

1. Sulphur excess makes the disposition volcanic, feelings moody, temperament spasmodic, desires paroxysmal. The person becomes similar to the source of Sulphur - volcanic. Now she is well and happy, then feverish, ugly, morbid and excitable. Now life is a poetic dream; later the mental horizon darkens and nothing pleases her. Complaint, hopefulness, temper, love, fear, stubbornness, peace, health, depression, joy, pessimism, optimism, planning, wishes, fright, courage, self-condemnation, distrust, pride, faith, carelessness, independence, dependence, exclusiveness, charity, selfishness, economy, stinginess, liberality, serenity, abuse, kindness, emotional excitement, sociability, geniality, hatred, cheerfulness, friendship, hostility, forgiveness, regret, doubt, trust and many other contradictory qualities fuse, mingle and melt and separate in the crucible of the inner feelings, brain and body in such persons.
2. They are born domestic actresses who play the leading role in a constantly changing drama. From a gentle lamb or a cooing pigeon, they change to an angry spitfire.
3. The love of a man in whom Sulphur consumption is excessive is ardent, intense, romantic, even with an excess of feeling, but his love is changeable. For today his sweetheart is a goddess, tomorrow he may not care for her, or for marriage, home, friends, studies, or even life itself. The Sulphur patient is sulky in the morning but happier towards evening.
4. The functions are torpid in the morning. The real day begins about eleven o'clock with a Sulphur patient. Before that time she is only half-awake, possibly angry, irritable and hard to please. Emotional changes and changes in the complexion are peculiar to Sulphur patients. They are fitful, capricious, acid, touchy, particular, fastidious and sometimes volcanic.
5. They are subject to spasmodic moods. She changes quickly from happy to sad, from lively to indolent, from repose to impulse, from alacrity to lassitude. They have their spells of ill humour, are cranky and pleasant in turns, and are easily thrown into a panic.
6. Obsessive counting is a Sulphur symptom. Dry hair, trembling pupils, dependent pride and a metallic taste in the mouth are prominent excess Sulphur symptoms.

7. Excessive Sulphur consumption results in the generation of Hydrogen sulphide gas, which destroys the Iron in the red corpuscles of the blood. The iron in the haemoglobin of the blood is metamorphosed and its ferric essence gives rise to this Iron taste in the mouth.
8. The Sulphur patient craves high Sodium foods: chocolate, juicy food, tart beverages, sour cooling mucilaginous drinks or tonics, greens, vegetables, strong tea. They may even long for beer in hot sultry weather, or for vinegar, because of internal ferments and gas pressure.
9. Eating alleviates her symptoms for the time being, but aggravates her ailments in a few hours. She may say that her head feels as if it has been lifted off. This is due to brain tension.
10. She has a craze for frosty air, nightly room breezes, storm and elemental commotion. She is a fresh air enthusiast. She wants the cold wind to play upon her face in her bedroom. Intense cold has a pleasing effect of her.
11. The menstrual cycles are often spasmodic. She is very forgetful. She is sometimes as peevish as a petulant baby. A warm room smothers her. Lying on the back in bed irritates the sensory nerves. Lying prone in bed is resting. Sitting results in tension and flatus. Talking weakens the brain, producing lassitude and provoking temper outburst. Erect static positions urge the blood to the liver, spleen and heart, producing pain in these organs. Climbing results in dizziness.
12. Fresh, breezy air, or looking at cool, heaving clouds billowing, or seeing thunderbolts, or being out in the rain and storm, always soothe nerves and pacify emotions.
13. The Sulphur person is a puzzle to doctors. He does things in fits and starts. He is unequable, spleeny, whimsical, captious, and fitful. Now he is well, and then he is sick. He is a good soul but impossible to his marriage partner. He dislikes cooking odours, fumes and heat.

#### **vi. SYMPTOMS WHEN SULPHUR IS DEFICIENT.**

1. Pressure, tension, fitfulness, fussiness, impatience, weak ankles, late hours, prominent emotional irritability fondness for change and variety, tendency to hysterical outbursts, volcanic outpourings of emotion with extreme impatience and touchiness. Intentions may be noble, but they are spasmodic. The disposition is affected. This affects accomplishments. The finger muscles are jerky.
2. The transmission of nerve impulses from the brain is increased, which affects the blood vessels. Dizziness, dislike for prolonged talking and reasoning, weakness of the throat are Sulphur deficiency symptoms. The patient craves vigorous pressure or massage, but dislikes gentle touches or massage movements. He may be ambitious but lacks in fortitude. Swallowing is difficult. The pulse is short and quick. He sleeps late in the morning and is up late at night. The appetite is poor in the morning. The skin pigment is similar to the colour of Sulphur. His complexion changes many times during the day.
3. Like Sulphur, he is sensitive to temperature changes, or atmospheric gases and fumes. The epigastric region is sore. Gas is generated in the alimentary tract, and red corpuscles are broken down in great numbers. He suffers from stuffiness, dyspnoea, acid formation, gas generation, and lack of Magnesium and blood salts.
4. The vocal organs are in a state of dryness, and the throat is filled with mucus. She feels faint and seeks a dark, quiet, cool room. She feels stuffy in head, feet, liver and spleen. She gets out of breath easily in sultry places or in warm rooms.
5. The disposition is peevish, the moods fitful, and the wishes changeable. In the morning they are always tired and the eyelids are so weak, that they can hardly open them.

6. The nervous system, the sensory nerves, the portal system of the liver, the colon, the spleen and the male sexual organs are usually the seat of the trouble.
7. Hydrogen sulphide is the main cause of the ailments for the following reasons:
  - a. Sulphur consumption is too great;
  - b. Sulphur is not normally assimilated;
  - c. Sulphur food are not properly combined in the diet with Magnesium, Sodium and Iron;
  - d. The alimentary canal, the tissues and the secretions are always in a state of acidity so that unless an acid neutralising food is also taken, Sulphur forms more acid and more gas;
  - e. Because of Sulphur acid and gas and also because of lowered oxidation, destroyed blood salts and not enough Sodium in the diet, carbon dioxide is not properly excreted;
  - f. Irritability, emotionality, petulance, pains, discomfort, so much Phosphorus is broken down in the brain that Phosphorus products become another source of acidity, destroying the Magnesium supply, leaving the eliminative avenues filled with waste matter in which germs and germ toxins thrive, only to further aggravate ailments.
8. She suffers from anaemia and lack of blood oxygen in the system. The menses are spasmodic, as are many of the physical functions.
9. She dislikes small towns, crude people, stingy men, literary platitudes. She needs intermissions and rest.
10. She is an excellent judge of art and culture, refinement, classics, beauty and socialisation.
11. She is often cross in behaviour, touchy in disposition, captious in moods, irritable in temper, freakish in wishes, fitful in love, often repellent to others in word and action, although she does not mean any harm. She is proud yet sensitive.
12. The complexion may be pale pink, or delicately ruddy, because of capillary congestion and nerve irritation on the surface of the skin.
13. Impetuosity is her greatest fault.
14. Her mind works faster than her tongue. Hence when her tongue refuses to act as fast as her mind or emotions, she gets tongue-tied or hysterical.
15. She is stubborn from sentiment, but not from reason. Kindness soothes her nerves.
16. She has many wavering, moody, variable, fitful haughty moods, but she is never fickle. She wants to be humoured. She is gloomy, moody, careless, tired, dull, happy, jealous, playful, quarrelsome, loving, sympathetic, restless, nervous, lonely, sad, timid, weary and faint in turns.
17. She dislikes foreigners and other races. She also dislikes long sermons. She has an instinctive fear of snakes and wars.
18. She is a poor judge of motion, distance, time balance, efficiency, real values, speed, momentum, mechanics, kinetics and physical events.
19. Direct questions irritate her. Her sense of balance is disturbed.
20. She worries much about her good looks.
21. She is a patient for a high altitude, frosty air and moisture. She has much heat in the blood.
22. It is Sulphur gas or Sulphur products that are at the root of all of those symptoms; they are Sulphur symptoms. She is not herself when Sulphur is very active in her.

#### **vii. HOW TO REDUCE SULPHUR IN THE BODY.**

1. **Foods:** Omit foods rich in Sulphur.
2. **Climates:** Live in a high altitude in the hills, where the air is fresh and the climate is cold and dry.
3. **Mental exercise:** Do not use the emotional mind or brain any more than necessary. In other words avoid temper, passion, fretting, nervousness, irritability, and other unfavorable emotions.
4. **Physical Exercise:** Spend much time in the cold, dry, fresh, open air. Do plenty of horse riding, rowing and walking. Take in addition, very cold sponge or shower baths. Never take Turkish baths or any other hot or warm baths, whether sick or well.

#### **viii. HOW TO INCREASE SULPHUR IN THE BODY.**

1. **Foods:** Eat raw foods rich in Sulphur. Cooked Sulphur foods generate gas.
2. **Climate:** Live in a low altitude where the atmosphere is warm and stuffy.
3. **Mental Exercise:** Be emotional as much and as often as possible.
4. **Physical Exercise:** Stay indoors much, and be lazy.

#### **ix. PEOPLE WHO REQUIRE SULPHUR FOODS**

1. **In abundance:** Phlegmatic people, mentally dull people, people who use their brain much. Exesthesic, Calciferic, Carboferic, Nitropheric, Atrophic, and Pargenic people. Exesthesic people require raw Sulphur foods because of excess Sulphur consumption.
2. **Very little:** Healthy Exesthesic and healthy Nervi-Motive people; also Myogenic, Oxypheric and Lipopheric people.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF SULPHUR FOODS ON**

1. **Health:** It results in disease.
2. **Disposition:** The disposition becomes spasmodic.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF SULPHUR FOODS ON**

1. **Health:** Leads to disease.
2. **Disposition:** Disposition becomes temperamental or emotional.

#### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM SULPHUR IS IN EXCESS.**

1. Fevers become intermittent; disposition varies, symptoms change, diagnosis becomes difficult.
2. Sulphur acts on the cells, skin and sexual function, but when eaten to excess, digestion is disturbed, assimilation suffers, Hydrogen sulphide is generated which destroys the red corpuscles of the blood.
3. It results in bloating, congesting, skin affections, acrid discharges, tension, constriction, pityriasis, headache, psoriasis, burning in the soles of the feet, sudden prostration, spasmodic symptoms, hysteria, menstrual disorders, dizziness, drowsiness, muscular weakness, formation of tumours, autointoxication, de-oxidation, bloodlessness, paraesthesia, erotic habits, temper, boils and pustules.

4. Phenard says that:
  - a. One fifteen hundreds percent of Hydrogen sulphide in the air kills a bird;
  - b. One eight hundreds percent of this gas in the atmosphere is fatal to a dog;
  - c. One two hundred and fiftieth percent kills a horse.
5. Phenard says that a man can withstand from one to three percent of this gas in the atmosphere for a brief time, but lastly the man suffers from faintness, vertigo trembling, convulsions, de-oxidation of the blood, because this gas unites with the iron in the haemoglobin in the red blood corpuscles and destroys the power of the blood to carry oxygen.
6. This is also the case with the Sulphur person, when there is Sulphur gas generation, Sulphur acids, gases and products are dangerous to the blood, to the blood salts and to oxidation.

### **xiii. FOODS THAT PEOPLE WITH EXCESS SULPHUR SHOULD**

1. **Eat:** Foods containing: Magnesium, Manganese, Sodium, Potassium, Iron, raw vegetable Sulphur. Inhale fresh air in abundance. Live in a cold climate, high altitude.
2. **Avoid:** Carbohydrates, cooked Sulphur foods, all gas producing foods.

### **xiv. HELPFUL HINTS.**

1. Sulphur acid and gas products lessen the blood salts and reduce oxidation. A blood test does not reveal the trouble, for even if the number of red corpuscles is normal, the condition of the haemoglobin is such that the red corpuscles cannot carry oxygen - not even when the iron is present in the haemoglobin, nor when the haemoglobin is normal. This is the reason why every Sulphur patient is more or less anoxyaemic, and this is also the reason why the person is a fresh air fanatic.
2. Under the influence of Sulphuric acid the tissues suffer, especially the mucous membranes. It neutralises alkalis, removes water and precipitates albumin. It burns the stomach, the throat, and produces intense thirst. It leads to collapse and suffocation.
3. Sulphuric acid is known by the black stain that it leaves on lemons. It overcomes alkalinity of the blood, causes acidity of secretions and the system, and interferes with carbon dioxide removal from the tissues.
4. Sulphuric acid produces ammonia in the tissues and fluids of carnivorous animals and thus protects the blood salts.
5. When foods that are treated with various kinds of Sulphuric acid or Sulphur preparations are eaten, they lead to doctor bills, operations, sickness, loss in efficiency and a great deal of suffering. Never eat foods treated with Sulphur.
6. Sulphur is cumulative. It is retained day by day until autointoxication in all its forms develops.

### **xv. WHEN A SULPHUR DIET IS NEEDED.**

1. When patients are gloomy in the morning;
2. When they are peevish and irritated by little things;
3. When are repentant after outbursts of temper and displeasure;
4. When the skin is dry, soft, velvety and Sulphur-like in pigment, yet anaemic;
5. When there is a tendency to sensations of numbness, stuffiness and suffocation.
6. When there is a strong desire for sensationalism.

7. When idealism is morbid.
8. When patients retire late and rise late.
9. When the appetite is poor from the morning until almost noon.
10. When love is morbid or perverted.
11. When there is a great fondness for travel, or pleasure in the hills or woods, stormy water scenery, storms, cold showers.
12. When there is a dryness in the tissues, walls of the body canals or channels of elimination, capillaries, glands, eyelids, liver, kidneys, colon, veins, heart, cerebellum and heart walls.
13. When there is a tendency to sexual perversion.
14. When there is a great pain during the periods, but not before or after.
15. When there is a strong dislike of cooking smells, fumes, and smoke or of staying in the kitchen.
16. When moods, wishes, plans, love, fear, will, physical functions, heart, digestion, liver, spleen, eyes, bladder, kidneys, voice, are spasmodic in action.
17. When there is an excess of emotional irritation and outbursts of temper that are nothing more than juvenile theatricals.
18. When the mind acts faster than the tongue and there is a tendency to hysterical outbursts, screaming, crying, and complaining.
19. When there is a great demand for pauses for rest, air, motion and pleasure during working hours, which indicate that the functions are spasmodic.
20. When sentimentality or stubbornness prevails over rules, regulations, laws, duty, discipline, reason and love.
21. When there is a strong Sulphur-acid odour to the perspiration, excretions, and expectoration or in the body or on the breath or in discharges, pustules or eruptions.
22. When discharges are corrosive and likely to produce brown or yellow-brown or dark yellow stains on the linen.
23. When there is a wavering stubbornness one minute and repentance the next.
24. When there is rush of blood to the brain.
25. When the hair falls or is dry and the scalp itches in sultry weather, in heat or in the evening.
26. When there is a granulation of the eyelids, irritation of the eyes.
27. When the tip of the nose is red and shiny.
28. When there is a dryness, with swelling of some parts of the body such as the skin, gums, eyelids, inner throat, liver, spleen, uterus, accompanied with pulsations in that dry anaemic part.
29. When the saliva is fetid, the throat burns and there is a partial closure of the respiratory tract, causing distress, redness with inflammation of the face accompanied with much irritation and a tendency to hysteria.
30. When the patient appears healthy, rosy skinned and yet is miserable and full of pain, congested, plethoric, or full of tough mucus.
31. When food aggravates before 11 A.M.
32. When the patient is sleepy, dull, torpid in the morning, inclined to sleep late; or if the patient rises early, she is morose, miserable, fussy, angry, dull, torpid and hard to please.
33. When the urine is fetid and green.
34. When there is a burning sensation in the membranes.
35. When there is an almost manic desire for open doors and windows.
36. When there is continual trouble with the throat, stomach and colon.
37. When the stomach is acid, resulting in gas generation, with intermittent indigestion.
38. When the feet feel hot and the patient craves very cold water over the feet and perhaps throws off the covers from the foot end of the bed at night.



39. When motion, walking, working, severe emotion and excitement produce a flow of blood to the neck and back, resulting in stiffness of those areas.
40. When there is a tendency to read sensational, trashy news.
41. When the patient quarrels quickly and afterwards cries and pleads.
42. When a patient rearranges her furniture often.
43. When a milk diet gives rise to nausea, acidity and eructations with tension in the abdominal muscles.
44. When the patient feels that she must absolutely eat or collapse, and she feels worse about an hour after eating.
45. When chills travel upward; when pain travels downward.
46. When there is internal pressure towards the body surface.
47. When the feet burn and the nerves are irritable.
48. When very strong light irritates.
49. When the patient feels neglected by their spouse or others.
50. When mental states vary like the weather in spring.
51. When ailments, symptoms and diseases are difficult to comprehend.
52. When the symptoms continually change.
53. When there is a great dislike for strangers, foreigners, heat, sultry weather, noise, vibration, disturbances, car motion, balance, gravity.
53. When there is a sense of great weariness, weakness, and lassitude, which compels the patient to lie down often.
54. When the patient misplaces things and can't find them.
55. When there is indifference to the condition of others.
56. When there are tingling, chiming, humming, or warbling noises in the ears.
57. When there is a numbness and pain from vibratory motion in cars, trains or otherwise.
58. When the heart palpitates when a patient climbs a hill, or walks up a stairway, because of a greater demand for Oxygen.
59. When there is a dropsical tendency with cold knees.
60. When there is nightly nervous perspiration on the chest.
62. When the doctor thinks that the patient's illness is nothing but a product of the imagination.
63. When the patient makes noble resolutions but violates their own resolutions as fast as they make them.
64. When odours and noise cause nausea; when fumes cause suffocation.
65. When moisture soothes and rush confuses.
66. When the patient retires in a cool dark room, bundles up their body, applies cold applications to their face and neck and hot applications to the stomach.
67. AT SUCH TIMES A DIET RICH IN SULPHUR FOOD IS NEEDED.

**xvi. PRINCIPAL SULPHUR FOODS (ALPHABETICALLY ARRANGED).**

1. Horseradish is very stimulating to the vital organs, skin function and to the brain. It acts as a fire, and can lead to excessive brain and nerve irritation, with extreme Sulphur symptoms. Hence, horseradish should be consumed sparingly, unless there is considerable dullness of the mind or senses.
2. The mineral Sulphur is very high in Ash Content, but is not contained in vitamins; care should therefore be taken in its consumption in drug form or as a food preservative, because in this form it is harmful to the liver, and to a great many other vital functions.

3.

<b>BEST SULPHUR FOODS</b>	<b>ASH CONTENT</b>	<b>SULPHUR</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Cabbage, red	0.77	15.30	No	Raw
Carrots	1.60	11.13	Yes	Raw
Chestnuts	1.35	11.94	Yes	Raw
Coconut	1.00	5.09	Yes	Raw
Figs, dried	2.86	6.75	Yes	Raw
Milk, Human	0.45	5.95	Yes	Raw
Nuts, Almond	2.30	4.61	Yes	Raw
Oranges	0.80	5.80	In seeds	Raw
Spinach	2.10	6.90	No	Cook 3 min.

4.

<b>SECOND BEST SULPHUR FOODS</b>	<b>ASH CONTENT</b>	<b>SULPHUR</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Cabbage, white	1.11	9.11	No	Raw
Cauliflower	0.83	13.00	No	Cooked
Egg Yolk	1.90	0.30	Yes	Raw
Onions	0.70	5.68	Yes	Raw
Parsnips	1.60	0.20	Destroyed	Cooked
Peaches	0.30	5.70	In stones	Raw
Radishes	0.74	6.50	Yes	Raw
Rape	0.14	1.15	In seeds	Raw/cooked

5.

<b>THIRD BEST SULPHUR FOODS</b>	<b>ASH CONTENT</b>	<b>SULPHUR</b>	<b>CONTAINS VITAMINS</b>	<b>BETTER TO EAT</b>
Apples	0.50	6.10	In seeds	Baked
Asparagus	0.54	6.20	Destroyed	Cooked
Brassica napus	0.90	0.40	No	Raw/cooked
Cherries, light	0.90	5.11	In seeds	Raw
Cucumbers	0.44	6.99	In seeds	Raw
Gooseberries	0.40	5.90	Yes	Raw
Grapes	0.50	5.60	In seeds	Raw
Horseradish	1.50	30.80	Yes	Raw
Potatoes	1.00	6.59	Destroyed	Baked
Shrimp	1.60	High	Destroyed	Boiled

## **6.xv. MAGNESIUM.**

### **i. MAGNESIUM IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Magnesium is one of the metals of the alkaline earths, and is widely distributed in organic matter. It is also a constituent of animal and vegetable tissue. Magnesium is found in many rocks, such as soapstone, talc, dolomite, augite, and others. The bitter taste of seawater and of some mineral waters is due to the Magnesium salts.
2. Dolomite is composed of Magnesium carbonate and Calcium carbonate, and of these compounds a cement is made that hardens and sets under water.

### **ii. MAGNESIUM, ITS NATURE AND CHARACTERISTICS.**

1. The fusing point of Magnesium is 230 degrees centigrade. It is a grey-white metal having a silvery lustre, and is malleable and ductile.
2. It is light in weight, alkaline and flexible and confers the same qualities to human tissue, thus imparting alkalinity, suppleness, elasticity, leanness and pliability to tissues. It also imparts elasticity and leanness to vegetables.
3. It is a white, earthy, insoluble, absorbent, antacid, mildly cathartic and tasteless as a powder; it occurs in a free state in nature, but usually extracted from ores.
4. When Magnesium combines with Oxygen it becomes Magnesium oxide, also called Magnesia. Hydrated Magnesium carbonate is called Magnesia alba; this is used a great deal in medicine. Magnesium is the metallic base of Magnesia.
5. Magnesium is tart or pungent in taste.

### **iii. FUNCTIONS OR MAGNESIUM IN THE HUMAN ORGANISATION.**

1. Magnesium imparts the pungent bitterness that is peculiar to Epsom salts and the combined action of Magnesium and Sulphur that provides the laxative and purgative properties to Epsom salts. In whatever food Magnesium is present, that food becomes a laxative. Magnesium is found in abundance in certain natural mineral waters such as: Pullna, Rubinat, Carlsbad, Friederickshal and Hunyadi Janos. These waters are highly laxative and purgative if taken in large quantities. These waters can affect some patients adversely. It is much better for patients to utilise laxative Magnesium containing foods if there is constipation, as inorganic Magnesium inhibits absorption in the alimentary canal, than to use mineral waters that contain inorganic Magnesium.
2. Normally about three ounces (85 grams) of Magnesium, or a little more, is present in the tissues of the body, but Magnesium is used functionally from birth to death by every human being. Physical function cannot be maintained very long without this alkaline, laxative, flexibility producing and nerve-calming element.
3. Magnesium makes the body fluids more alkaline and the tissues, tendons, muscles and nerve function more elastic. It produces flexibility to limbs and joints. It has a beneficial affect upon the bowels. It acts upon glands, serous and mucous membranes, on the nerves which control digestion and nutritional uptake, nerves of excretion and elimination, upon the generative function and indeed upon the processes of life in general.
4. Magnesium food is purifying, cool, alkaline, laxative, nerve calming and sleep producing. It is not sleep producing because of anaesthetic properties, but because it strengthens the nerve function, by counteracting body gases, toxins and acids, and autointoxication products. It is purifying to the intestines.

5. In case of poisoning from aluminium, barium, ferrous sulphate, phosphorus, muriatic acid, antimony, chloride, all sorts of Magnesium foods and even Magnesium drugs, are very efficacious. They are equally essential in cases of ptomaine poisoning. Magnesium foods prevent phosphatic deposits from forming in the joints and the solid structures, which otherwise could result in gout, arthritis and bone ailments, especially when uric acid and urea are present in tissues and fluids, when there are products of past, improperly eliminated infectious processes, or when the eliminative avenues are partly closed up, obstructed or slow.
6. Magnesium indirectly promotes brain action, by neutralising phosphorus compounds generated by strenuous brain action, which generates excessive Phosphorus consumption. It has a cooling effect upon the nervous system and upon the brain. It prevents sleeplessness because it prevents noxious acids, gases and toxins from affecting the body.
7. A Magnesium diet is preferable to the taking of hypnotics. Magnesium is sedative to the nerves. It helps in filtration, osmosis and most of the eliminative functions. It prevents congestion and the hardening processes from taking place. It increases magnetisation, alkalisation, as well as the electrical processes that take place in the muscles.
8. Magnesium produces a beneficial effect in highly sensitive, sympathetic, yet excitable natures, in highly sentimental, high tempered people, upon erratic natures, upon highly pathetic and romantic ladies, upon all people in whom motor impulses, brain ganglia, the nervous system and the sensory nerves are overactive, hot, irritated and inflamed, or in whom the whole neurological machinery acts under high nerve tension. One of its greatest spheres of action is its ability to counter the effects of Phosphorus breakdown products.
9. Magnesium phosphate, together with Calcium phosphate, is found in small quantities in almost all tissues. Magnesium carbonate is found in small traces in the blood. Magnesium acts favourably upon pain sensation, upon the channels, organs and functions of elimination, upon certain acids, toxins, germs and gases, but not upon all aspects of these.
10. Magnesium helps to construct the white muscle and nerve fibers, which is an important functional sphere of Magnesium. Magnesium uses water and albumin to assist in the construction of these white muscle and nerve fibers.
11. Magnesia is converted by the acids in the stomach into soluble salts, which are highly laxative. Magnesia is an antidote to arsenic poisoning. Magnesium carbonate stirs up the abdominal contents, which, when the stomach is acid, results in the generation of gas and consequent disagreeable eructations, but removes indigestible products from the stomach and intestines; therefore, in times of a very acid stomach, it is a valuable vehicle to remove autointoxication products caused by a wrong diet.
12. Magnesium, like chlorine, is a cleansing, laxative, germicidal element, only in a different capacity. It is cooling to the nerves and nervous system, to the sensitive linings in cells, and to the function of perception of pain in the cerebrum.
13. Magnesium foods should be eaten liberally by all people who are highly impulsive, excitable, nervous, emotional, sensitive and hyperaesthetic.
14. Magnesium food relaxes the brain, promotes sleep, cools the liver, settles down fevers, calms nerve endings and the nervous networks, stops a certain kind of heat, soothes the generative system, stops spasmodic action of motor nerves, relieves nerve generated cramps, reduces temper, relieves pain in perineural and periosteal structures and in linings containing fine nerves capable of intense pain sensations, mainly through the neutralisation of certain acids, by destroying infection and by speeding corruptive matter out of the system.

15. Magnesium food is important when the cerebrospinal fluid has been made less viscous through the drying up effects of excessive passion, exhausting healing practices, overwork of the brain, hypnotic and other trance states, by the poison of snakes, or otherwise, thus leaving nerve and brain matter hot, dry and irritated.
16. It is important when the mind wanders, or when the patient indulges in excesses, or when he is clairvoyant, or when he is possessed by irrational moods.
17. It is important for neural and cerebral functioning, not directly but indirectly. An intense nervous system, keen perceptions of pain, great Phosphorus and Sulphur consumption, which results in large quantities of Phosphorus and Sulphur products in the body, require Magnesium food. It makes the tissues flexible, supple, and alkaline; the disposition quiet, the mind serene, the temper placid, the nerves restful, and the deportment sedate, principally by its laxative, neutralising and germicidal properties.
18. Magnesium is the most relaxing and cooling of all chemical elements.
19. Too much Magnesium over-sedates and makes the brain and the body sluggish, it also irritates the mucous membranes and deranges sexual function.
20. Magnesium is required for the following functions:
  - a. For elimination.
  - b. For bodily sanitation.
  - c. To clear up a pale, muddy complexion.
  - d. To make the brain more active.
  - e. To prevent tumours of the brain.
  - f. To provide building materials for the brain.

#### **iv. CONSTITUTIONS IN WHICH MAGNESIUM IS INHERENTLY**

1. **Excessive:** None.
2. **Deficient:** Almost all Constitutions, but especially: Exesthesic, Nervi-Motive, Neurogenic, Pathetic, Desmogenic, Marasmic, Calciferic, Isogenic, Sillevitic, Carboferic, Oxypheric, Atrophic, Medeic and Pargenic, in fact, all Constitutions where there is a great deal of excitement and brain activity.

#### **v. SYMPTOMS WHEN MAGNESIUM IS EXCESSIVE.**

1. If Magnesium is introduced in excessive quantities in drug form or perhaps even in food form, it takes vitality away from nerve matter and produces semi-anaesthetic states of the nervous system, which results in the following:
  1. Impairment of the brain;
  2. Oppression of the mind;
  3. Dulling of the nerve centres;
  4. Deadening of the nerves and perception, which results in weak mindedness;
  5. Great drowsiness in working hours and terrifying dreams when sleeping;
  6. Affects the brain and generates fear and anxiety;
  7. Blunts the perception of quantity, place, duration, distance and time;
  8. Partially loses the power of recognition and identification of people and objects;
  9. Lack of judgment and perception of the objective world or of place, duration, distance, time, quantity, form, shape and constituency;
  10. The place perception is unreliable, as are almost all perceptive brain areas;

11. Life is like a lethargic dream;
12. He abhors teasing;
13. Gives foolish answers, lack of awareness of his own answers and actions, and of the answers and actions of other people;
14. Lack of interest in life and business;
15. He warns people of future evils;
16. He imagines that fate is against him;
17. Delusions in regard to people who do not exist anymore, dead animals, blood;
18. Day dreams accompanied by horrible fears;
19. Affects the nerves in the small intestines and the nerves in the entire alimentary tract unfavorably;
20. Phosphorus and Sulphur by-products are not eliminated or possibly Magnesium has a bad effect upon the Sulphur and Phosphorus constituents of the body;
21. He complains of pressure over the orbits of the eyes;
22. He cannot study in the evening;
23. He retires early and cannot keep awake at any social gathering or business meetings;
24. He becomes sleepy as soon as the sun passes the noon meridian;
25. He falls asleep over his work;
26. He suffers from a feverish appetite, continually changes the subject in conversation, changes his preoccupation and generally acts spasmodically;
27. He has periods of gluttony and periods of aversion to food;
28. Brain work aggravates his ailment;
29. He is discontented with life;
30. He is drowsy in the afternoons, after sunset, in the morning and after vigorous brain activity;
31. Concentration is impossible;
32. He is restless at night, not in nerve but in muscle;
33. He wakes up and falls asleep again and again;
34. His urinary system is very active during sleep but urination is difficult;
35. Public opinion does not bother him, but teasing embitters him;
36. The communication fibers of the brain and the white muscle fibers are disturbed;
37. Most of the functions are dulled.

**vi. SYMPTOMS WHEN MAGNESIUM IS DEFICIENT.**

1. The nervous system is in a state of dynamic intensity;
2. The patient is very restless, full of eagerness to work and industriousness;
3. He is too energetic and sees new possibilities in every enterprise;
4. Exhaustion in physical and mental activities, cerebral neurasthenia, perhaps cerebellar exhaustion;
5. The nervous system and brain are in a state of excessive nervous tension;
6. Headaches develop when rushed;
7. Near-sightedness, due to brain dysfunction, glasses do not correct the deficiency in sight;
8. She forgets details about books, accounts, notes;
9. Horse riding makes her feel better;
10. Wild thunderstorms, the rush of water, the cry of a baby are soothing to her;
11. She says she feels as though her skull is broken and that the top of her head has pain like a tooth ache;
12. She is subject to haemorrhages and develops freckles even in winter;
13. Red colours cause the eyes to ache;
14. Dark blue colours depress the mind;

15. White has a soothing affect upon the eyes and nerves;
16. The skin is very sensitive;
17. The skin is like it is electrically charged, and appears to be used in breathing;
18. She cannot wear woolen or heavy clothes, or she feels like she is suffocating even in cold weather;
19. Her head gets so hot she wants her hair cut short, or she splashes cold water on her head or applies a cold compress;
20. Her scalp and skin are gritty;
21. She is sensitive to electrical currents and batteries;
22. If she goes near an electric heater, or a generator or electric motor, she feels worse;
23. Her teeth are affected by the electric current of the telephone;
24. If she lives or lingers near strong electrical currents, she suffers from toothache and growths under the teeth;
25. Tobacco smoke and odours make her sick;
26. She feels as though something terrible, harmful, or fatal is going to happen;
27. She is sensitive to weather changes;
28. Her tissues and blood become acid during a storm;
29. It feels as though the mental machinery is so tight that the wheels cannot move;
30. As the evening approaches she becomes thirsty and she craves acid foods and drinks;
31. Nerve and brain matter is dry in the Magnesium deficient patient;
32. The Magnesium deficient patient may be forced to suddenly leave the dinner table because of nausea, and vomit;
33. The shoulder muscles are charges with blood so that they become stiff;
34. She is nervous and neuralgic;
35. Vibratory motion of trains, cars, vehicles produces an accumulation of blood at the base of the brain.
36. She gets excited and loses her temper;
37. Thoughts vanish, intentions fade away, wishes and desires are spasmodic, love is capricious, purposes are impermanent, habits are wavering, appetite is fitful, the mind is full of imagination, the disposition is unstable, character mutable, conduct fickle, wishes abnormal, attention volatile, inclinations inconstant, thoughts fanciful, sentiments captious, feelings whimsical, nerve transition fitful;
38. She is fearful, fastidious, easily offended, premonitory, full of omens, full of wants but does not know what these wants are;
39. She may want to eat clay (pica);
40. Anger appears rapidly and disappears just as quickly;
41. She complains of an earthy taste in the mouth;
42. She stumbles and falls easily;
43. A very typical Magnesium deficiency symptom is that strong pressure to the painful nerve eases the pain and quiets the pain centres in the brain, and may stop the pain completely for some time, even when strong analgesics fail.

#### **vii. HOW TO REDUCE MAGNESIUM IN THE BODY.**

1. **Foods:** Omit food and drugs rich in Magnesium. No food and chemicals counteract Magnesium in the body except albumin, and albumin cannot be efficiently utilised except by heavy labourers.
2. **Climate:** No special affect. Hot, dry climate may possibly reduce an excess of Magnesium.
3. **Mental Exercise:** Use the intellect and the emotions very actively, especially the emotions.
4. **Physical Exercise:** No special affect.

#### **viii. HOW TO INCREASE MAGNESIUM IN THE BODY.**

1. **Foods:** Eat Magnesium rich foods. Omit high albumin foods.
2. **Climate:** Live in a cool, soothing, high ozone climate in the hills at a medium altitude.
3. **Mental Exercise:** Stop using the intellect and the emotions and the passions.
4. **Physical Exercise:** No special affect, except perhaps by light and easy exercises.

#### **ix. PEOPLE WHO REQUIRE MAGNESIUM FOODS**

1. **In abundance:** All Constitutions, especially all excitable people, hot-headed people, highly strung people, nervous and emotional people, all hard brain workers, all intense temperaments.
2. **Very little:** Nitropheric people, also easygoing Isogenic people who are very dark in complexion.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF MAGNESIUM FOODS ON**

1. **Health:** Irritation of the mucous membranes, derangement of metabolism, disturbance of menstruation, colic, spasmodic functions. It is almost impossible to eat Magnesium food to excess except where Magnesium food is selected and eaten in combination with foods rich in no other chemicals.
2. **Disposition:** Drowsy, dreamy, lethargic, listless, full of inertia, ill-humoured.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF MAGNESIUM FOODS ON**

1. **Health:** It results in ill health.
2. **Disposition:** The disposition becomes fussy, nervous, irritated; the nerve centres erratic, nerves irritated; the emotions hypersensitive, the digestive tract full of disease organisms, linings become inflamed, angry pimples appear, urine becomes hot, red, turbid, smoky, and loaded with Phosphorus; it results in darting pains, colic, membranous contraction, nervous cramps, psychosomatic problems; hysterical, sensational, nervous tendencies; irrational actions, carbonic or acid nerves like those seen in Dementia or Paranoia, which are caused by defective communication in the white fibers in the brain.

#### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM MAGNESIUM IS IN EXCESS.**

1. Nervous tissue becomes unsettled almost to the point of having nerve action blocked, because the white nerve fibers are not able to transmit mental, motor and sensory impulses and sensations.
2. White brain matter becomes affected, and leaves the patient in a weak minded condition with many delusions, which may result in Paranoia.
3. It may develop into atrophy of the brain, shrinking of the cerebral meninges, loss of perception, reason, sequence of expression, self-direction and control.
4. It may result in hypertrophy, intestinal adhesions and gas generation that results in unpleasant eructations.
5. The whole digestive tract may become irritated and phlegmatic, which at first causes abdominal obesity and later in great emaciation.



6. Fluids and blood may be drawn from the tissues, resulting in the drinking excess fluids and in the rushing of vital nutritional substances through the intestines.
7. It results in weakness and relaxation of the digestive tract and muscles, and in sluggishness of cell activity and the general functions.
8. It may irritate and deaden the menstrual process.
9. It may result in paralysis of mental function, nausea, excessive beer drinking, alcoholic hypertrophy, disturbance of brain function and even Dementia.

### **xiii. CHEMICALS IN FOOD THAT PEOPLE WITH EXCESS MAGNESIUM SHOULD**

1. **Eat:** Any kind of food that has a constipating, overheating affect.
2. **Avoid:** Foods containing Magnesium and also drugs containing Magnesium.
- 3.

### **xiv. HELPFUL HINTS.**

1. Epsom salts is another name for Magnesium sulphate; it has a powerful effect upon accumulated autointoxication products in the intestines.
2. Epsom salts increase the action of the intestines by attracting fluids from the intestinal structure and contents, and by the speedy expulsion of fluids, germs, autotoxic products and excreta from the intestines. Perhaps no other salts have a more beneficial affect upon the colon if used in a warm water enema and injected into the colon for purposes of colonic irrigation. If people will eat those foods that are rich in Magnesium they do not need to take Epsom salts, nor Citrate of Magnesia.
3. If too large an amount of Citrate of Magnesia is drunk at a time when the digestive tract is not acid, it is very likely to coat the entire digestive tract with an earthy coating; but if the digestive tract is in an acid condition, it has no such effect.
4. Excess of Magnesium results in deficient communication between cerebral impulses.
5. Patients who are obese become more obese under the influence of Magnesium foods and drugs, and patients who are lean become leaner under the influence of an excessive intake of Magnesium foods and drinks.
6. People who drink beer or liquor to excess always suffer from alcoholic hypertrophy and from intestinal adhesions.
7. Vibratory motion as that in a train produces neuralgia, trembling of the nerves, toothache and other pains in a Magnesium deficient patient.
8. Temperature changes, great excitement, outbursts of temper, gases in the atmosphere or in the room, smoke, fumes, drafts or artificial heating will eventually always cause severe neuralgia.
9. The whole nervous system is in a state of excess tension.
10. Walking results weakness of the back and in back pain.
11. When the patient is jarred or lies in one position or stretches or bends down to lift something heavy, it irritates the nerves and nerve centres in the viscera.
12. Magnesium deficiency is closely related to the generation of vicious, ill-tempered and defective children, with a strong neurotic and psychotic tendency.

**xv. WHEN A MAGNESIUM DIET IS NEEDED.**

1. When the digestive tract has been inflated by an army of abnormal bacteria and accumulated waste matter;
2. When catarrhal discharges are tenacious;
3. When the flatus or the stool has a sour odour;
4. When the complexion is pale, muddy and sickly;
5. When the patient is emaciated;
6. When the blood has become acid;
7. When jaundice weakens the ambitious brain worker;
8. When children suffer during dentition;
9. When there is constipation;
10. When phosphatic products and body gases block the intestines and form gas pockets;
11. When sleeplessness is caused by bacterial toxins at work in the intestinal tract;
12. When young girls suffer from fainting, nervous conditions and headaches;
13. When ladies faint in cars, trains, or public places, or are subject to emotional outbursts;
14. When boys suffer from St. Vitus Dance, or dysentery, especially during the sultry months of July and August.
15. When heat plays havoc with nerve and brain matter;
16. When large quantities of Phosphorus by-products are released;
17. When the blood becomes overheated so that the cells of the spinal cord and brain tissue become overheated, resulting in heatstroke or sunstroke;
18. When there is a tendency to peritonitis, intestinal stasis or cholera;
19. When secretions are acrid;
20. When nerves and brains are in a feverish condition;
21. When nerves are erratic when a large amount of mental work is done, during passion, fear or grief;
22. When toothache comes and goes;
23. When there is a craving for earthy, metallic substances;
24. When there is an earthy taste in the throat;
25. When the neck and the shoulder muscles ache;
26. When rest and recuperation are needed after becoming overexcited;
27. When details about the house, books, systems, orders, notes or music are constantly forgotten;
28. When the expectoration is yellow;
29. When the menstruation is late, with a scanty flow, accompanied by sore throat, backache, chills, weakness, and coryza;
30. When pains are relieved by pressure;
31. When the white of the eye is yellow;
32. When there is a tendency to hardening of the liver;
33. When there is weakness of the abdominal muscles;
34. When there is a strong tendency to infection or a fear of snakes. When there is sensitivity to heat, electric currents, batteries, electrical equipment, heaters, metals, artificial heat, animals and people, or to the electrical tension in the atmosphere;
35. When gas is generated mostly in the evening;
36. When there is a swimming sensation in the head;
37. When there are aching sensations all over;
38. When the perspiration is oily;
39. When the patient goes to sleep over his work, or when he sees visions before falling asleep;
40. When he is very sensitive to static electricity;
41. When there is intolerance to the pressure from clothes;
42. When there is much anticipation of events;
43. When the complexion alternates between red, pale and earthy;
44. When the fingers and eyes are restless;
45. When ordinary summer heat creates great distress;

46. When there is sudden increase in blood pressure on rising from a recumbent position;
47. When there are burning vesicles in the mouth;
48. When there is a tendency to vomiting at meals or when riding in a car or train;
49. When the patient feels chilly after relaxing into a warm bed or into a warm room;
50. When the patient appears to fall, or feels like he may fall when he is standing still;
51. When creepy feelings or tired feelings creep over the patient when he is sitting still;
52. When symptoms and ailments are aggravated at night;
53. When symptoms and ailments, or pain sensations, reach a climax about once every six weeks;
54. When there is a craving for strong coffee, motion, pleasing work, exercise, breezy air, cold sponge baths, ducking the head into cold water or placing the head on the cool ground, or a liking for severe thunderstorms, or fondness for running water, or when the cry of babies, bright surroundings, light colours, or perhaps magnetic massage, are pleasurable to the patient;
55. When strong pressure has a soothing, resting, relieving affect upon the patient;
56. When there is intolerance to woolen clothes, fur or heavy fabrics;
57. When there is a strong desire for tart fruits or foods;
58. When the patient must become physically fit before they can feel better;
59. When there is a tendency to diarrhoea in autumn and in spring;
60. When the neck and jaw muscles are jerky;
61. When the pain is relieved by walking in the fresh air;
62. When there is a strong tendency to neuralgia;
63. When the baby clenches his fist when breathing in and pushes his fist forward and upward, or perhaps inserts the whole fist into the mouth;
64. When a patient feels he must protect himself against electrical currents;
65. When there is a tendency to frequent urination with a burning sensation after urination;
66. When the urine has a yellow paleness and there is indican in the urine;
67. When the patient faints after he eats because of gas pressure in the stomach;
68. When the thumb feels weak and numb;
69. When the patient sleeps with his eyes half open, and there are jerky movements in his muscles;
70. AT ALL SUCH TIMES A MAGNESIUM DIET IS IMPERATIVE

**xvi. PRINCIPAL MAGNESIUM FOODS (ALPHABETICALLY ARRANGED).**

1. Do not use Mineral water or Sea Water, as the Magnesium in these is inorganic;
2. Eat these foods without sugar, as sugar leaches Magnesium, and develops acid and gas.
3. Nuts should not be eaten by themselves, but should be ground and sprinkled on other foods and eaten at meals.

4.

<b>BEST MAGNESIUM FOODS</b>	<b>ASH CONTENT</b>	<b>CONTAINS MAGNESIUM</b>	<b>VITAMINS</b>	<b>BETTER TO EAT</b>
Cheese, Goat's whey	Very High	2.48	Destroyed	Raw
Citric fruits	Varies	Varies	In seeds	Raw
Coconut	1.00	9.40	Yes	Raw
Egg Yolk	1.90	1.10	Yes	Raw
Figs	2.66	9.21	Yes	Raw
Prunes	0.66	5.50	In stones	Raw
Grapefruit	Low	Very high	In seeds	Raw
Milk, Goats	1.74	2.48	Yes	Raw
Nuts:				
Almonds	3.10	17.66	Yes	Raw + salted
Beechnuts	3.86	14.15	Yes	Raw
Chestnuts	3.00	7.47	Yes	Raw
Walnuts	2.13	13.00	Yes	Raw
Oranges	0.80	5.90	In seeds	Raw
Rye	1.81	11.22	Destroyed	Cooked/baked
Spinach	2.10	6.40	Destroyed	Cook 3 mins

5.

<b>SECOND BEST MAGNESIUM FOODS</b>	<b>ASH CONTENT</b>	<b>CONTAINS MAGNESIUM</b>	<b>VITAMINS</b>	<b>BETTER TO EAT</b>
Barley	2.70	12.50	Destroyed	Cooked/baked
Beans	3.26	7.15	Destroyed	Cooked/baked
Cherries	0.90	4.90	In seeds	Raw
Corn	1.51	15.50	Destroyed	Cooked/baked
Fish: Smelt, Sole,				
Whiting	1.60	3.90	No	Broiled
Gooseberries	0.40	5.85	In seeds	Raw
Meat: Frogs legs,				
lamb's shoulder,				
tender chicken	1.10	3.21	Destroyed	Broiled
Oats	3.02	7.10	Destroyed	Cooked/baked
Peaches	0.30	5.20	In stones	Raw/cooked
Peas	2.58	8.00	Destroyed	Cooked
Prunes	0.78	4.98	In stones	Raw/cooked
Shredded Wheat				As
Biscuit	1.65	11.30	Perhaps	manufactured
Wheat:				
Flour	0.70	9.10	Destroyed	Cooked/baked
Whole	2.00	12.10	Destroyed	Cooked/baked

6.

<b>THIRD BEST MAGNESIUM FOODS</b>	<b>ASH CONTENT</b>	<b>CONTAINS MAGNESIUM</b>	<b>VITAMINS</b>	<b>BETTER TO EAT</b>
Apples	0.50	8.75	In seeds	Raw/baked
Grapes	0.50	4.20	In seeds	Raw + seeds
Rice Flour	8.90	7.90	Destroyed	Cooked/baked

## **6.xvi. PHOSPHORUS.**

### **i. PHOSPHORUS IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Phosphorus is common in some rocks, in fertile soil, in animal and vegetable tissues and in guano. Phosphates have an important function in mineral formation and plant growth. The most important Phosphates in life processes are: Sodium phosphate and magnesium phosphate. Phosphatic manures are often used to replenish soils and consist of bone phosphate mixed with other phosphates. Metallic Phosphorus compounds are often called phosphides.
2. Phosphate of lime, a type of calcareous earth is used for improving and fertilising the soil for crops and plants. Phosphoric acid is present in the soil, primarily in combination with lime and phosphate of lime in the form of phosphates; these phosphates are in turn mainly found in those plant parts that are rich in protoplasm.
3. A good phosphate supply is needed to promote Nitrogen assimilation in plants. Phosphorus is found in the casein of milk, in egg yolk, in the hulls of wheat, corn, barley, oats and buckwheat, which hulls are usually discarded by the miller, to be fed to pigs and horses, which paradoxically need less Phosphorus than man.
4. It is difficult for a weak stomach to digest oatmeal, wheat bread made of whole wheat, and other heavy foods, but for people whose digestion is poor, it is easier to digest and extract Phosphorus from some easily digestible grains and vegetables, from fish and from properly prepared fish broths.
5. Phosphorus is found in decayed wood, which changes to soil, rocks, etc; then into the vegetable kingdom, then through the food chain into brain tissue.

### **ii. PHOSPHORUS, ITS NATURE AND CHARACTERISTICS.**

1. Chemical studies in the laboratory have discovered that Phosphorus is a nonmetallic, highly poisonous, yellowish white and somewhat waxy element; that its melting point is between 42 and 44 degrees centigrade; that it vaporises at 288 degrees centigrade; and that it does not conduct electricity. It is flammable and burns with a white flame. It undergoes slow combustion when exposed to air in an ordinary room temperature. It emits a white vapour and appears luminous in the dark.
2. Phosphorus must be stored under water to prevent its combustion in the air. It is insoluble in water and slightly soluble in alcohol.
3. Through medical studies we learn that it is one of the most powerful stimulants known; that it is one of the most diffusible substances and also that it is extremely poisonous. Phosphorus is allotropic; by keeping Phosphorus for a long time below its boiling point, it can be precipitated in another form.
4. There is another form called red Phosphorus. This form of Phosphorus has very different properties to ordinary Phosphorus, being red, brittle, hard, non-poisonous, and not easily combustible. If red Phosphorus is heated to 260 degrees centigrade, it changes back into the ordinary form of Phosphorus and burns with a brilliant flame.
5. Phosphorus was called Lucifer in the past, which is a Latin word which means Light Bearer. The word Phosphorus is the Greek word for this element and also means bearer of light.
6. Many Phosphorus containing objects have a property called phosphorescence, which is a luminosity produced by Phosphorus. Putrefying fish often contain such quantities of Phosphorus that they appear luminous at night. The glowworm is so deeply laden with Phosphorus that it produces a beautiful light in the dark.

Chemists tell us that the fireflies of the West Indies produce a glow bright enough to enable one to read at night by their light because of their high charge of Phosphorus. Multitudes of microscopic organisms which inhabit the seas, swamps, rivers and bogs contain so much Phosphorus that it often appears that they seem to be on fire with lurid flames which leap to and fro. In graveyards and on some boats, where Phosphorus bearing organisms and fungi are plentiful, many strange light effects occur.

7. This luminosity of Phosphorus is seen in animals, some of which possess more phosphorescence than others, such as for example the jellyfish, fungi, glowworms, earthworms, fresh water worms and marine worms; and also fish in the ocean depths, some of which appear as strings of phosphorescent lights in their watery home.
8. Phosphorus is the element of intelligent life.
9. Phosphorus has an affinity for Sulphur and readily combines with it; it is used with Sulphur in matches.

### **iii. FUNCTIONS OF PHOSPHORUS IN THE HUMAN ORGANISATION.**

1. The use and function of Phosphorus in the human body is more important than the study of the chemistry of Phosphorus as manifested in mineral and vegetable kingdoms. Phosphorus is normally present in the body in a quantity of about two pounds (about one kilogram); almost enough to cause fatal poisoning of one quarter of all the people in Chicago (pop. 1921 approx. 1.5 million). And yet, although one single man has that much poison in his brain and body, he lives and thrives. Phosphorus is directly associated with the cell nucleus. It is present in the fluid and solid tissues in the form of Potassium phosphate. In the bones it is found as Calcium phosphate.
2. Phosphorus is especially important in the nutrition of nerve tissue and helps to increase bone density. It acts upon the sensory nerves, the sensory areas in the brain, the nerve centres, the sympathetic nervous system, the nerves and nerve distribution and ganglia in general and especially upon the nerves of the heart. It has, when present in adequate amounts, a stimulating effect upon the generative organs and upon the bone production.
3. Phosphorus is essential to the higher intellectual functions, for the idealistic, altruistic, religious and psychic feelings, for the brain's subjective functions, for the physical senses, especially taste and touch.
4. Phosphorus, when associated with the stronger elements, stimulates the tissues to greater metabolic action.
5. Phosphorus is the element of thought, emotion and intelligence. The Phosphorus element belongs to the studious man. When we think we consume Phosphorus. The more we think the more Phosphorus we consume and the more work we throw upon the liver.
6. After an orator has captivated his audience by his display of metaphor; after a philosopher has used his brain in reasoning, writing, thinking and teaching, and investigation; after a musician has fascinated his audience with the art of his music; after any intellectual effort, any emotion, sentiment, passion, appetite, or all brain action, there are greater quantities of Phosphorus in the urine. This indicates that Phosphorus consumption in the brain has been greater during processes of cerebration. Phosphorus is a bone and brain worker. It helps to build bone, to repair bone, to nourish the brain and to feed nerves.
7. It stimulates bone production. When there is a lack of Phosphorus in the bones, bone tissue becomes soft and gelatinous, instead of being hard, dense, compact and elastic. Phosphorus increases the number of the red blood corpuscles. This does not mean that the red corpuscles are made of Phosphorus. It simply means that Phosphorus has an indirect effect upon the manufacture of the red blood corpuscles. Phosphorus improves tissue nutrition at large.

- If there is a lack of Phosphorus in the body, the metabolism suffers and health cannot be maintained for very long.
8. When bone tissues become soft, and there is a tendency to rickets; it is an indication that Phosphorus is needed in the body, as well as Calcium and other mineral salts. Phosphorus performs an important function in the mucous membranes by its tonic action upon these.
  9. Without Phosphorus the brain decays and intelligence leaves. Lack of Phosphorus leads to sterility, brain softening, neuralgia and pus production. The intelligence soon leaves and the patient slips into a state of unconsciousness. Nor can Phosphorus be withheld from the diet for any length of time and subsequently be supplied without serious consequences.
  10. A child who is going to school is utilising brain Phosphorus very strongly. If adequate Phosphorus is not supplied, that child will soon suffer from brain weakness. No amount of tuition can help such a child.
  11. Ammonio-magnesium phosphate appears in the urine when a patient suffers from dyspepsia, alkaline fermentation, or cystitis. One can be sure, that if a child is supplied an inadequate amount of Phosphorus, or if the child's system cannot assimilate Phosphorus, that disorders of some kind will appear.
  12. Leucine and Tyrosine always appear in the urine when a patient suffers from Phosphorus poisoning, or from yellow atrophy of the liver, or from feverish (hot) degeneration of liver tissue.
  13. Lecithin is a main constituent of egg yolk. Lecithin is a complex lipid that is widely distributed throughout the human body and in some animals. It is found mainly in bile, milk, semen, egg yolk, nerve issue, red blood corpuscles, serous fluids, lymph and pus. It is one of the constituents of bile that holds bile salts and fats in solution.
  14. Lecithin is composed of Carbon, Hydrogen and Nitrogen, but contains also Oxygen, Fluorine, Iron, Sulphur, Calcium, Phosphorus and a nerve lipid called neurol or glycerophosphoric acid, and also a vitamin called Choline. If the diet is lacking in the vitamins, neurol, Phosphorus, Oxygen, Sulphur and certain essential nerve salts, then lecithin cannot be manufactured.
  15. Lack of the lecithin in body tissues causes impotence, atrophy of the nerves, degeneration of brain function, intellectual decline, pus formation and general physical degeneration. If adequate Phosphorus is not present in body tissues, lecithin cannot be formed. If Phosphorus is withheld from the diet, lecithin is not manufactured for the brain and nerves. This results in neurasthenia, mental degeneration and wasting of the body.
  16. The egg yolk contains the vital principle essential for the creation of life, sometimes called the "vitellus". The vitellus is a nucleoprotein, a considerable proportion of which is composed of Phosphorus.
  17. If the phosphorus part of the egg yolk is absent, or if the Phosphorus part in the vitellus is lacking, either in the egg yolk or in the creative principle of man, a chick could not hatch nor could a baby be born. Phosphorus has a great deal to do with generative life and growth. Phosphorus stimulates life to unfoldment in and through the formative life processes.
  18. The chemical composition of white blood cells has been inferred from an analysis of pus cells that are identical and also from lymphocytes from the lymph glands. White blood cells are about ninety percent water, while the remainder consists mainly of proteins, of which nucleoproteins and cell globulins are the most abundant. These two are characterised by the presence of a considerable quantity of Phosphorus, amounting to as much as ten percent.
  19. Lecithin, fat, glycogen and also various phosphates are moreover present in white blood cells. Phosphorus is here in demand as elsewhere, and if not supplied results in lowered metabolism and poor immune function.

20. Phosphorus is the agent of life and growth. It is the element of luminosity. Phosphorus affects the vital functions and is essential in plant growth. It is an important element in fish and it is therefore found in large amounts in their flesh; it increases the generation of muscular electricity in animals. In man Phosphorus favours the same processes and also the higher cerebral functions. When it acts mainly in a person's muscles, he becomes more electrical.
21. In some types of people the electrical quality of phosphorus acts principally in the brain and nerves and less in the tissues and they become more magnetic. As long as a man is alive, his fingers appear luminous when held against strong light; but when life has gone, the bones of the fingers appear dark.
22. Phosphorus evidently helps to keep a man's body and soul together, the animals' life and body together, and plants' life force and matter together.
23. Phosphorus has much to do with intuition, dreams, mental activity, the generation of mental images, physical sense perception, sensory perception, the ability to generate inventive ideas, obsession, delusion, and many parapsychological phenomena.
24. If Phosphorus were low, life would be operating under low pressure.
25. Life could not organise substance for material growth and feeling. Phosphorus is one of the essential elements of organogenesis.
26. The higher forms of organic life would be impossible without normal quantities of Phosphorus and Sulphur.
27. Every thought and emotion breaks down phosphorus. Some mental (Phosphorus) people are unusual; many of them have bad habits, are not normal, and not practical.
28. Phosphorus acts on the higher qualities of man. A person dies or goes insane if temperature of brain reaches 44 degrees, because Phosphorus substances in the body change their composition. Sunstroke is the result of overheating of the brain, hence, Mental Primary Constitutional types should avoid heat, especially a hot sun.
29. Phosphorus is electricity at work in the muscles and in the world.
30. Phosphorus works on the brain and nerves, and with the subjective and unconscious mind.

#### **iv. CONSTITUTIONS IN WHICH PHOSPHORUS IS INHERENTLY**

1. **Excessive:** Neurogenic.
2. **Deficient:** Carboferic, especially in a physical sense; Atrophic, because Phosphorus is used in excess in the brain, therefore it is deficient in a large number of functions. Phosphorus is deficient in all children and adults whose mental functions appear deficient.

#### **v. SYMPTOMS WHEN PHOSPHORUS IS EXCESSIVE.**

1. It is excessive in Neurogenic people, hence they always crave excitement. They are extravagant and spend money foolishly. They lack judgment in economics and the practical aspects of life.
2. They argue that thoughts are things. They take a great interest in mental suggestion and in religious and mystical healing. Suggestion has a remarkable effect upon their physique, disorders, symptoms and habits. They say, "Talk health and health is yours", "Talk success and it comes to you", "Think of disease and it overtakes you". They are interested in speculative philosophy. Their imagination is lively. They are enthusiastic idealists. They have faith in the future, in divine assistance and in mental suggestion, but have no faith in work, effort, diet, etc.
3. They are idealistic fanatics and enthusiasts. They have more ambition and optimism than strength and power. They become somnambulists or sleep walkers.



Their brains work in Latin, Greek and mathematics when their eyes are asleep. Their subjective minds seem to be awake, while their muscles, nerves and objective mind is locked in slumber.

4. They imagine themselves to be under the influence of invisible forces.
5. Their foreheads are hot; feet and hands cold and their nerves are irritated. Their minds are overactive, but their will power, power of decision, practical judgement and ability to concentrate are weak and unreliable.
6. They are excitable. Their excitable moods are followed by faintness. Their mental attitudes are extreme, varying, sudden, and spasmodic. Hope and expectation are excessive. Laughter, hilarity, optimism and speculation are also excessive.
7. They think they know more than anyone else, and they argue about it, especially when it is a question of theory, doctrines, creeds, philosophy, mystical ideas, esoteric philosophies, religion and strange and outlandish beliefs.
8. Their religion is dogmatism and idealism.
9. They may imagine that everything around them is false, insignificant and inferior.
10. They talk about "The Great Unknown", about "The magnetism in things" and about "The Spirit Essence".
11. They despise a practical life, money matters and purposeful pursuits.
12. They are almost boneless.
13. They are lively, remarkably responsive, wide-awake, quick to understand and to learn, but equally quick to forget.
14. Their feet, eyes, arms, fingers, head and senses are restless and the tongue is busy.
15. They sigh for other worlds, and would be perfectly willing to go beyond the clouds and live in the ether, clouds and moonshine.
16. They would rather build a house with thoughts than with mortar, bricks, stones and wood or steel.
17. When they are children, they grow rapidly upward, but never outward.
18. They are restless in movement, spasmodic in tendencies.
19. They think that work is degrading, and that the development of doctrines and theories is the loftiest calling in life.
20. They take deep interest in the sky, in supernatural beings, celestial phenomena, in the habits of migratory birds, in airships, aircraft, space travel, aeronautic apparatus, submarines, speed and motion, altitude and space; aviation, invention, modernism, revelation, adventure, parapsychology and idealistic philosophy.
21. Their muscles are too slender.
22. They imagine that they can think themselves wealthy, that they can heal a broken bone by thought, that they can cure themselves by faith, that they can make prosperity walk into their homes by mere thinking.
23. They have more faith in thought than in science, work, business and effort.
24. Excess Phosphorus:
  - a. Causes imagination (psychological).
  - b. Stimulates the generation of strong intuitive impulses.
  - c. Over-inspiration in religion, etc.
  - d. Get angry, crazy, or excitable if aroused.
25. Oxidation is slow in Phosphorus people. The greater the consumption of Phosphorus, the lower the oxidation.

#### **vi. SYMPTOMS WHEN PHOSPHORUS IS DEFICIENT.**

1. Low oxidation in the tissues; chilliness produces hunger;
2. When they come to the breakfast table, their appetite leaves them;
3. They have strong desires for cold, icy, stimulating and refreshing things;
4. Poor appetite alternates with great hunger;
5. Weakness of the sexual system;

6. Changes of position increase nerve pain;
7. They feel as though they cannot use their brain without getting a headache;
8. Excitement, or use of the brain, results in anxiety and uneasy sensations in the epigastric region;
9. News weakens them;
10. They lack will power, self direction, power of control, executive power;
11. Their excitable moods are followed by faintness and nervous collapse;
12. They are so involved with their own ailments that they manifest great indifference towards others, they always talk and think about themselves;
13. Their mental attitudes vary, changing from tears to laughter, from pessimism to talkativeness, from optimism to great despondency;
14. They imagine danger to themselves from things below them, above them, or fear that something is hidden somewhere;
15. The heart, the disposition, the nerves and the brain cells are adversely affected by lightning displays in the sky; every Phosphorus deficient person prefers to hide away at such a time and the heart thumps and pulse races;
16. They have no courage, no will power, no power of decision, no desire for action, no spirit of enterprise;
17. They grope for ideas, but their minds cannot act;
18. They sink into a mental chaos from which they cannot easily emerge;
19. They look into the mirror and see a hundred little creases in their face;
20. They appear aged beyond their years.
21. They are drowsy, mentally dull and wakeful during the day, and afraid in the dark.
22. They are as timid as a child, prone to take a gloomy view of themselves and their own condition.
23. They are helpless prey to an awful fear, which seems to fill their brains, nerves and blood;
24. They cannot tolerate the clamour of trains, the rush and noise of cars, the din of machinery, the clank of metals, the noise of aircraft, the fuss of children, babies crying, customers rushing or the scuffle of passengers;
25. They crave peace and quiet.
26. They become disgusted with the world;
27. They may take a notion to live in the forest away from society and live like a hermit; although they may be high society celebrities when they feel well and things are going well for them;
28. They always think of imaginary troubles;
29. They are extremely sensitive of their own imperfections;
30. The mind is sick, nerves are starved, brain matter is toxic and nerve substance acid;
31. The nerves seem to deflate when criticised, blamed or scolded, and this causes further exhaustion;
32. There is a morbid fear of people;
33. She cries easily; she is weak, timid and unable to provide her own needs;
34. They feel that they are the weakest of the weak, and yet they are proud;
35. Some parts of the body may seem half paralysed;
36. If the physician asks them to put out the tongue, they may not have the power to do so;
37. Anything unfavorable, dark, troublesome or noisy, has a bad effect on them;
38. Morbidity takes possession of the Phosphorus deficient;
39. They feel as though their limbs have been dismembered;

40. The mind and nerves are in a state of morbidity, caused by Phosphorus by-products, acidity in the nerves and toxic substances in brain and tissues;
41. Phosphorus by-products are evidently retained because of the lack of renewable Phosphorus in the system, the resulting acidity and auto-intoxication makes a Phosphorus patient so morbid and forlorn when sick;
42. The hair becomes grey at the roots; the person becomes impatient, nervous and filled with fear and may collapse;
43. Intellectual people are liable to become scrofulous because they are unable to take up oxygen;
44. Phosphorus people like to go up in the air, while of the Osseous and Vital primary constitutions like to stay on solid ground or even go down into basements;
45. A HEALTHY NEUROGENIC PERSON DOES NOT HAVE SUCH SYMPTOMS AND CHARACTERISTICS, EXCEPT IN A MODIFIED FORM, BUT DELICACY ALWAYS CHARACTERISES THE NEUROGENIC PERSON.

#### **vii. HOW TO REDUCE PHOSPHORUS IN THE BODY.**

1. **Foods:** Omit foods rich in Phosphorus.
2. **Climate:** Live in a warm, moist climate and at a low altitude.
3. **Mental Exercise:** Do not cultivate idealistic emotions.
4. **Physical Exercise:** Participate in physical and pleasing exercises, i.e. use the body, but not the brain, nor stimulate the emotions.

#### **viii. HOW TO INCREASE PHOSPHORUS IN THE BODY.**

1. **Foods:** Eat foods rich in Phosphorus.
2. **Climate:** Live in the hills where the climate is cool and refreshing, and where there is plenty of ozone in the atmosphere.
3. **Mental Exercise:** Cultivate normal but not excessive idealistic emotions.
5. **Physical Exercise:** Will not increase Phosphorus consumption in the body, unless the exercises are slow and prolonged so that they flex and affect the bones.

#### **ix. PEOPLE WHO REQUIRE PHOSPHORUS FOODS**

1. **In abundance:** Intellectually slow and deficient people, Atrophic people, people who suffer from sterility or impotence, people who are low in vitality, people who are using their emotions or their brains excessively, students, lawyers, preachers, musicians, orators; in fact all intellectual and idealistic people, because they use their brains and burn up Phosphorus in the brain, and thus rob the blood and the body of Phosphorus which is needed in body tissue.
2. **Very little:** Nearly all people are in need of Phosphorus, even Neurogenic people who tend to have an excessive Phosphorus consumption. In them the Phosphorus is burned up in the brain and nerves rather than in the tissues. This robs the tissues of phosphorus and weakens them.

#### **x. INFLUENCE OF AN EXCESSIVE AMOUNT OF PHOSPHORUS FOODS ON**

1. **Health:** The influence is favourable until excessive, when it results in disease.
2. **Disposition:** The disposition becomes morbid, the nerves depressed, and the mind impractical.

#### **xi. INFLUENCE OF A DEFICIENT AMOUNT OF PHOSPHORUS FOODS ON**

1. **Health:** It results in Atrophic states of brain, nerves and body, perhaps even in pus formation, tuberculosis, or some pus generating disease.
2. **Disposition:** The mind is too intellectual, bright and genius-like; the nerves are excessively sensitive; there is a nervous and emotionally sensitive disposition.

#### **xii. DISEASE TENDENCIES OF PEOPLE IN WHOM PHOSPHORUS IS IN EXCESS**

1. Neurological, vital and spasmodic: This may result in fatty degeneration of the liver, fatty degeneration in the tissues, in the muscles, heart, kidneys, intestines, glands of the stomach; or in progressive emaciation, degenerative changes in connective tissue, disturbed metabolism, great tendency to paralysis, sleepwalking, neurasthenia, bronchitis, nervous diseases, haemorrhages, albuminuria, jaundice, exhaustion, neuralgia, heart disease, the withdrawal from reality, hypersensitivity of the sexual glands, delusions and delusional speech.

#### **xiii. CHEMICALS IN FOOD THAT PEOPLE WITH EXCESS PHOSPHORUS SHOULD**

1. **Eat:** Foods that are rich in Magnesium, Calcium, Fluorine, Silicon, Potassium, or in the essential salts.
2. **Avoid:** They should avoid starches, fats, sweets, and meat.

#### **xiv. HELPFUL HINTS.**

1. The Neurogenic needs a diet that is rich in lecithin, in nerve lipids, Calcium and vitamins.
2. The Neurogenic needs a cool climate, a high altitude and ozone rich air.
3. The Neurogenic needs plenty of sleep and rest.
4. The Neurogenic needs pleasurable recreation.
5. The Neurogenic needs a Magnesium diet to break down Phosphorus by-products.
6. The Neurogenic needs the association with Calciferic people, whether he likes them or not and he should not accuse them of being "Materialistic", as he always does.

#### **xv. WHEN A PHOSPHORUS DIET IS NEEDED.**

1. In case of neuralgia;
2. In brain degeneration;
3. In mental insufficiency or deficiency;
4. In impotence;
5. When the face is bloodless and pale;
6. When there is a dislike for exertion and work.
7. When the patient makes an effort only when excited and stimulated and collapses when the excitement is over;
8. When the patient feels that there is something that is gnawing at his vitals, or undermining his life;
9. When he appears healthy, yet feels and acts like a dying man, or appears to be the victim of his own imagination, always dreading his future and deeply concerned about his ailments.
10. When there is depression with a tendency to nightly discharges;
11. When there is prostration during the menstrual period;
12. When there is numbness in some part of the body, or in areas of the skin;
13. When there is insensibility to pain, heat or cold, or when there is a loss of control of some finger or a hand, an arm, or perhaps the tongue.
14. When there is a twitching in the muscles of the eyelids;

15. When there is a great variability in the symptoms, one follows the other, so that as one ceases the other starts;
16. When there is a dislike for the opposite sex;
17. When there is a constant tendency to be scornful;
18. When there is a dislike for consecutive brain work;
19. When there is a sensitivity to pressure;
20. When there is a hardening of wax of the ears;
21. When the skin is wax-grey or waxy and blue;
22. When sores have a dark blue, or dark green colour;
23. When there is a delicacy and weakness, perhaps an alabaster complexion in young girls or boys;
24. When there is defective bone metabolism;
25. When there are degenerative changes taking place in bones and joints with emaciation of the tissues of the arms and the legs, or even complete mental and physical decay;
26. When there is slowness in learning how to walk;
27. When the child awakens and screams with pain at night.
28. When some of the bones are enlarged and swollen;
29. When the appetite is poor;
30. When body temperature is variable;
34. When bean sized hardnesses form in the glands of the neck and other glands;
35. When the metabolism is low;
36. When the face flushes easily from excitement;
37. When the head is too large and the body is frail;
39. When the disposition is very sensitive, and the mind is too mystical;
40. AT ALL SUCH TIMES A DIET RICH IN PHOSPHORUS IS IMPERATIVE.

**xvi. PRINCIPAL PHOSPHORUS FOODS (ALPHABETICALLY ARRANGED).**

1.

<b>PHOSPHORUS FOODS</b>	<b>ASH CONTENT</b>	<b>CONTAINS PHOSPHORUS</b>	<b>VITAMINS</b>	<b>BETTER TO EAT</b>
Barley, Whole	2.70	32.80	Destroyed	Cooked/baked
Beans	3.26	38.90	Destroyed	Cooked/baked
Bran, Wheat	High	Very High	Yes	Chew raw, do not swallow
Cabbage, red	0.77	3.90	Destroyed	Cooked
Corn	1.51	45.60	Destroyed	Cooked/baked
Egg Yolk	1.10	37.60	Yes	Raw
Fish, viz: Clams, crabs, haddock, herring, lobster, oysters, salmon, trout, whiting	1.60	About 38.16	Destroyed	Baked
Lentils	3.04	33.30	Destroyed	Cooked
Meat	1.10	42.50	Yes, if raw	Raw or juiced
Milk, viz:				
Cow's	0.71	28.45	Yes	Raw
Goat's	1.74	13.78	Yes	Raw
Human	0.45	22.66	Yes	Raw
Nuts, viz:				
Almonds	3.10	43.60	Yes	(Grated and
Beechnuts	3.86	30.50	Yes	(sprinkled
Walnuts	2.03	43.70	Yes	(on foods
Oats, Whole	3.02	25.60	Destroyed	Cooked/baked
Peas	2.58	35.90	Destroyed	Cooked
Rice, Wild	1.00	53.76	Destroyed	Cooked/baked
Rye, Whole	1.81	47.70	Destroyed	Cooked/baked
Wheat, Whole	2.00	47.20	Destroyed	Cooked/baked

**COLLEGE OF NATURAL THERAPIES (S.A.)  
Elizabeth, South Australia.**

**CONSTITUTIONAL CHEMISTRY.**

**THE NEW TRACE ELEMENTS.**

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## **7. THE NEW TRACE ELEMENTS.**

### **CREDITS.**

Although it would be difficult to give due credit to all those authorities and researches who, by their writings have contributed either directly or indirectly to the information in these notes, I would like to make special mention of V. C. Rocine D.Sc. as I was most fortunate to gain access to the original notes of his teachings and therefore was able to format the information presented below in the same concise manner as that used by him.

### **FORWARD.**

These notes are the result of combining my own and others' more recent studies in the area of trace minerals and have been prepared as a companion to lectures and existing text to mineral therapy. These notes are not intended to comprise a concise textbook on Mineral Therapy, but are intended as a basic study guide to augment the information given in relation to the other minerals in V.C. Rocine's notes.

### **INTRODUCTION.**

Food provides energy and materials called nutrients needed for growth and renewal of tissues. Protein, carbohydrate, and fat are the three major components of food. Vitamins and minerals are found in small amounts in food, but are just as important for normal function of the body. Fibre, found only in foods from plants, is needed for a healthy digestive system.

During digestion, large molecules of food are broken down into smaller molecules, releasing nutrients that can be absorbed into the blood stream. Carbohydrates and fat are then metabolised by the body cells to produce energy. They may also be incorporated with protein into the cell structure. Each metabolic process inside the cells is promoted by a specific enzyme and often requires the presence of a particular vitamin or mineral.

### **WHAT CAN GO WRONG.**

Dietary deficiency of essential nutrients can lead to illness. In poorer countries, where there is a shortage of food, marasmus resulting from lack of food energy and kwashiorkor from lack of protein are common. In the developed world, however, excessive food intake, which leads to obesity, is more common. Nutritional deficiencies in developed countries result from poor food choices and usually stem from the lack of a specific vitamin or mineral such as that seen in iron deficiency anaemia.

Some nutritional deficiencies may also be caused by an inability of the body to absorb nutrients from the food (malabsorption) or to utilise them once they have been absorbed. Malabsorption may be caused by a lack of an enzyme or an abnormality of the digestive system. Errors of metabolism are often inborn and are not yet fully understood. They may be caused by failure of the body to produce the chemicals required to process nutrients for use.

## **WHY SUPPLEMENTS ARE USED.**

Deficiencies of the kwashiorkor/marasmus type are not usually treated by drugs, but by dietary improvement, and perhaps with food supplements. Vitamin and mineral deficiencies are usually treated with appropriate supplements. Malabsorption disorders may require continued use of supplements or changes in diet. Metabolic errors are not easily treated with supplements or drugs. Dietary changes may be tried.

Obesity has been treated with appetite suppressants or low energy bulk substances. The preferred treatment includes reduction of food intake, altered eating patterns and increased exercise.

## **MINERALS.**

Minerals are elements, which represent the simplest form of matter. Many minerals are essential in trace amounts for normal bodily processes. The body is unable to manufacture these substances itself and therefore we need to take them in through the diet. Most of the minerals are required in extremely small amounts and each individual mineral is present in one or more foods.

A balanced diet that includes a variety of different types of food is likely to contain adequate amounts of all the minerals. Inadequate intake of any mineral over an extended period can lead to symptoms of deficiency. The nature of these symptoms depends on the mineral concerned.

Recommending supplements of one or more minerals maybe due to a variety of circumstances: to prevent mineral deficiency from occurring in people considered at special risk; to treat symptoms of deficiency; and in the treatment of certain medical conditions.

## **WHY THEY ARE USED**

### **i. PREVENTING DEFICIENCY.**

Most people in Australia obtain sufficient quantities of minerals in their diet, and mineral supplementation is, therefore, unnecessary in most cases. People who are unsure about whether their present diet is adequate may assess a week's diet with a list of foods that are rich in minerals, and compare this with their intake. Mineral intake can often be boosted simply by increasing the quantities of fresh foods and raw fruit and vegetables in the diet.

Mineral therapy is most commonly medically prescribed for people with intestinal diseases that reduce the absorption of minerals from the diet.

Certain groups in the population are, however, at an increased risk of mineral deficiency. These include those who have an increased need for certain minerals that may not be met by dietary sources - in particular, women who are pregnant or nursing often are recommended to supplement their diet with iron. Iron enriched cereals are recommended for infants over the age of six months. The elderly who may not be eating a varied enough diet may also be at risk of mineral deficiencies. Strict vegetarians and others on restricted diets may not receive adequate amounts of all the minerals.



In addition, those fed intravenously or by stomach tube and are on artificial nutrients for prolonged periods, those suffering from disorders in which absorption of nutrients from the bowel is impaired, and those who take drugs (for example, lipid lowering drugs) which reduce mineral absorption, are usually given additional minerals.

Most mineral preparations are available without a prescription, however, it is important to seek professional advice before starting a course of mineral supplementation so that a proper assessment can be made of the individual requirements.

Mineral supplements should not be used as a general tonic to improve wellbeing - as they do not do so - nor should they be used as a substitute for a balanced diet.

## **ii. MINERAL DEFICIENCY.**

It is rare for a diet to be completely lacking in a particular mineral. But if intake of a particular mineral is regularly lower than the body's requirements, over a period of time, the body's stores of minerals may become depleted and symptoms of a deficiency may begin to appear. In Australia gross mineral deficiency disorders are most common among vagrants, alcoholics and those on low incomes who fail to eat an adequate diet.

## **RISKS AND SPECIAL PRECAUTIONS.**

Minerals are natural substances. Supplements containing these can be taken without risk by most people. It is however important to be careful not to exceed the recommended dose, as some minerals may accumulate in the body. Dosage needs to be carefully calculated, taking account of the degree of deficiency. Overdosage at best has no therapeutic value and at worst may incur the risk of seriously harmful effects. Preparations containing several times the recommended daily intake are best avoided. Fortunately, the amounts of each mineral contained in a given tablet are usually not large and are not likely to be harmful unless the recommended dose is greatly exceeded. Single mineral supplements can be harmful because minerals compete for absorption therefore an excess of one mineral may increase the requirements for others.

## **IN CLOSING - MINERALS.**

Minerals are inorganic chemical elements that are not attached to a carbon atom. They participate in many biochemical and physiological processes necessary for optimum growth, development and health. There is a clear and important distinction between the two terms mineral and trace element.

If the body requires more than 100 milligrams of a mineral each day, the substance is labeled a "mineral". If the body requires less than 100 milligrams of a mineral each day, the substance is labeled a "trace element".

Many minerals are essential parts of enzymes. They also participate actively in regulation of many physiological functions, including transportation of oxygen to each of the body's 60 trillion cells, providing the stimulus for muscles to contract and in many ways guaranteeing normal function of the central nervous system. Minerals are required for growth, maintenance, repair and health of tissues and bones.

Most minerals are widely distributed in foods. Severe mineral deficiency is unusual in the Western world. Of all the essential minerals, only a few may be deficient in a typical diet. Even so, there are exceptions. Iron deficiency is common in infants, children and pregnant women. Zinc and copper deficiencies occur fairly frequently.

## **7i. CHROMIUM.**

### **i. CHROMIUM IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Name: Chromium.  
Symbol: Cr  
Atomic number: 24  
Relative atomic mass: 51.996
2. Most countries have adequate levels of Chromium in their soil.
3. Generally American farming soils are deficient in Chromium.
4. Chromium toxicity can result from industrial overexposure, such as tanning, electroplating, steel making, abrasives manufacturing, cement manufacturing, diesel locomotive repairs, furniture polishing, fur processing, glass making, jewelry making, metal cleaning, oil drilling, photography, textile dyeing, wood preservative manufacturing.
5. A small organic essential compound called the glucose tolerance factor comprises Chromium; it is required to enhance the action of insulin within the body.
6. Although the above has been extracted from brewer's yeast, its complete structure and function still eludes researchers.

### **ii. CHROMIUM, ITS NATURE AND CHARACTERISTICS.**

1. Chromium, like iron, is highly electrical.
2. When Chromium is highly positively charged, it is best absorbed and most effective in the living system.
3. Chromium is widely distributed in the tissues, although in extremely small amounts.
4. An estimated safe and adequate dietary intake for Chromium is between 50 and 200 micrograms per day.
5. Chromium exists in the blood in very minute amounts.
6. The daily average amount of Chromium absorbed by adults is between 80 to 100 micrograms.
7. NOTE: Nutritional science has yet to quantify the exact amount of Chromium present in foods; that is why there are varying amounts shown in different food source tables.
8. About one third of the population in Western society gets less than the essential intake.
9. Chromium is almost entirely removed in the refining of foods.

### **iii. FUNCTIONS OF CHROMIUM IN THE HUMAN ORGANISATION.**

1. The total Chromium content of the adult human body is estimated at less than 6 milligrams.
2. Chromium is mainly stored in the kidneys, the spleen and the testes.
3. Trace amounts of Chromium are also found in the heart, the lungs, the pancreas and the brain.
4. Chromium is readily excreted via the kidneys.
5. Chromium is necessary for the utilisation of carbohydrate.
6. Chromium is necessary for the utilisation of fats.
7. Chromium is necessary for the formation of protein.
8. Chromium facilitates the uptake of glucose into the cell and thus releases metabolic energy.

9. When Chromium is lacking, blood glucose levels increase.
10. The body retains about 3% of the dietary intake, so very little accumulation of Chromium occurs within the body.
11. If the diet is too low in Chromium, the human body will adapt by absorbing as much Chromium as possible from the food eaten.
12. If the diet is too high in Chromium, the human body will adapt by absorbing less Chromium from the food eaten.
13. If the diet is too low in protein then the level of Chromium present in the body will be low.
14. Chromium stores will be depleted if there is an excessive amount of iron in the diet.
15. If the diet is high in processed foods, then the body's stores of Chromium will be depleted.
16. If the diet is high in refined carbohydrates then the amount of Chromium present in the body will be depleted.
17. Chromium normally decreases as pregnancy progresses.
18. If Chromium remains too high during pregnancy then the child will be too small.
19. Chromium stores are depleted by repeated pregnancies.
20. When Chromium is lacking, coronary artery disease occurs.
21. If the Chromium levels are adequate then wound healing is enhanced.
22. Chromium increases the sperm count.
23. Chromium improves the frequency of conception.
24. The body's ability to store Chromium decreases with age.
25. Older people are more likely to have slight Chromium deficiencies because many lack an appetite or the desire to prepare and eat proper meals.
26. If the diet is poor then an increase in Chromium is essential.
27. People who drink alcohol to excess deplete their Chromium stores.
28. Individuals who abuse drugs will lack Chromium.
29. If there is a chronic wasting illness then Chromium is lacking.
30. Patients, who have had recent surgery, will be low in Chromium.
31. If a portion of the gastrointestinal tract is surgically removed, than the absorption of Chromium may be diminished.
32. Chromium is essential for those who have recently suffered severe burns or injuries.

### **iii. FUNCTIONS OF CHROMIUM IN THE HUMAN ORGANISATION.**

Chromium is required for the following functions:

1. For a stable blood sugar.
2. For glucose to be used for energy.
3. For the formation of protein.
4. For healthy adrenal glands.
5. For the brain to function properly.
6. For good quality blood.
7. For a healthy circulatory system.
8. For a healthy heart.
9. For a properly functioning immunity.
10. For a healthy liver.
11. For the formation of healthy white blood cells.

### **iv. SYMPTOMS WHEN CHROMIUM IS EXCESSIVE.**

1. Chromium excess is rare and is usually due to secondary factors such as impaired liver and kidney function.
2. Chromium toxicity can result from industrial overexposure, such as tanning, electroplating, steel making, abrasives manufacturing, cement manufacturing, diesel locomotive repairs, furniture polishing, fur processing, glass making, jewelry making, metal cleaning, oil drilling, photography, textile dyeing, wood preservative manufacturing.

3. Long term exposure to Chromium may lead to skin problems.
4. Perforation of the nasal septum and lung cancer may result from excessive Chromium.

**v. SYMPTOMS WHEN CHROMIUM IS DEFICIENT.**

1. Chromium is lacking if tumors occur in the back of the nasal passages.
2. If there is uneasiness in the limbs.
3. If there is pain in the shoulder blades and at the back of the neck.
4. If there is pain in the knees and in the balls of the feet.
5. If there is a drawing pain in the soles of the feet when walking.
6. If there are frequent, watery, stools with nausea and vertigo.
7. If there is a tendency towards haemorrhoids that bleed.
8. If there is a weakness in the small of the back.
9. If wounds heal slowly.
10. If there is a chronic wasting illness and poor immunity.
11. If there is poor growth and development.
12. If there is heart weakness from arterial hardening.
13. If there is paleness and poor quality of blood.
14. If there are symptoms that come and go suddenly, and return periodically.
15. If there is a lack energy and the person fatigues easily.
16. If there is a decreased resistance to infections.
17. If there are yeast infections of the skin, the mouth and the vagina.
18. If there is a tendency to arthritis.

**vi. PEOPLE WHO REQUIRE CHROMIUM FOODS**

1. People who suffer from Arthritis, atherosclerosis, diabetes, heart disease, hypoglycaemia, mental illness, and protein-calorie malnutrition.
2. Those who live where the soils are deficient in Chromium.

**vii. PRINCIPAL CHROMIUM FOODS (ALPHABETICALLY ARRANGED).**

Apples,  
Beef,  
Brewers yeast,  
Black pepper,  
Calves' liver,  
Chicken,  
Clams,  
Dairy products,  
Eggs,  
Fish and seafood,  
Fresh fruit,  
Grapes,  
Green leafy vegetables,  
Honey,  
Legumes,  
Meats,  
Mushrooms,  
Nuts,  
Oysters,  
Potatoes with skin,  
Raisins,  
Root vegetables,  
Whole grain wheat and rye flour cereals.

**PLEASE REFER TO APPENDIX A.1. FOR FURTHER INFORMATION ENTITLED:  
IDIOSYNCRASY AND MINERAL IMBALANCE OF CHROMIUM.**

## **7.ii. COPPER.**

### **i. COPPER IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Name: Copper.  
Symbol: Cu  
Atomic number: 29  
Relative atomic mass: 63.546
3. Copper is a reddish-brown metallic element.
4. This malleable metal was the first metal used to make tools and weapons.
5. Copper is mined in many countries throughout the world.
6. Copper is very soft on its own, but it can be hardened by being mixed with other metals.
7. Copper when mixed with tin makes bronze.
8. Copper when mixed with zinc makes brass.
9. Copper is a very good conductor of heat and electricity.
10. Copper is used in industry to make electric wires and cables as well as water pipes.
11. Copper is used as a pigment in many artists' powders.
12. At one time Copper was used by doctors and vets as an ingredient in ointments for wounds.
13. Copper's poisonous qualities were first noted in coppersmiths, when workers suffered from chronic poisoning, with colic, diarrhoeas, cough, and difficulty with assimilation of food being the main symptoms.
14. Acute Copper poisoning is rare.
15. Symptoms of Copper poisoning are violent stomach cramps, vomiting, pale face, icy cold extremities, restlessness at night and violent headache.
16. If the sufferer survives acute copper poisoning then liver disease always follows.
17. A homeopathic preparation is made from the triturated pure metal.
18. Copper toxicity can result from contaminated swimming pools; drinking water; copper pipes; metal utensils; fungicides; environmental pollution; cigarette smoking; contraceptives; certain foods high in copper.

### **ii. COPPER, ITS NATURE AND CHARACTERISTICS.**

1. Copper is a very good conductor of heat.
2. Copper is a very good conductor of electricity.
3. Copper is an acid mineral.
4. Copper is a trace mineral widely distributed throughout the body in very small amounts.
5. Copper is required for tissue respiration in the living organism.
6. Copper combines in the living organism with many other minerals.
7. Haemocyanin is a copper protein complex that is found in the blood of certain invertebrates. Haemocyanin's purpose is to carry oxygen, and its function is therefore similar to that of haemoglobin.
8. Copper is an essential part of two other substances that fulfil a key role in oxygen metabolism in all life on this planet.

### **iii. FUNCTIONS OF COPPER IN THE HUMAN ORGANISATION.**

1. Copper is an essential trace mineral.
2. The adult human body contains 100 to 150 milligrams of Copper.
  - i) About 64 milligrams of Copper are found in the muscles.
  - ii) 23 milligrams of Copper are found in the bones.
  - iii) 18 milligrams of Copper is found in the liver.
  - iv) The liver contains the highest concentration of Copper in the body.
  - v) Trace amounts of Copper are found in every living cell.

3. 50% of the total Copper content is found in the bone structure.
4. In the unborn child, blood is produced in the liver. Therefore the concentration of copper in the liver of the unborn child is 5 to 10 times higher than that of a liver of an adult. Pre-term babies and hospital patients who are artificially fed are susceptible to a copper deficiency.
5. Copper is absorbed into the bloodstream shortly after digestion.
6. Copper is stored in the liver and spleen until the body requires it.
7. Most of the Copper is excreted via the bile into the intestines and expelled with the faeces.
8. Copper must combine with manganese in order for the body to use iron.
9. Copper foods improve the functions of the digestive system.
10. The liver, the small intestine and the pancreas all need Copper to function properly.
11. Copper is needed to enable the use of oxygen at a tissue level.
12. Copper protects the lungs from infection.
13. Copper is essential for the colour pigmentation of the skin.
14. Copper is essential for normal hair colour.
15. Copper helps the body use vitamin C.
16. Hair analysis may be used to determine Copper within the body.
17. A balanced diet is often recommended rather than copper supplementation as Copper supplementation can upset the body's delicate mineral balance.
18. Copper is used as a nutritional supplement in anyone receives prolonged feeding into the veins or by means of a tube into the stomach.
19. Copper is required for the following functions:
  - i. For the formation of red blood cell.
  - ii. For the storage of iron.
  - iii. For iron to form haemoglobin for healthy red blood cells.
  - iv. For elastin formation which provides tissue elasticity throughout the entire body.
  - v. For a healthy cardiovascular system.
  - vi. For proper bone formation.
  - vii. For the normal growth.
  - viii. For normal skin pigmentation.
  - ix. For natural hair colour.
  - x. For the normal formation of coverings of the spinal cord.
  - xi. For the use of oxygen in respiration.
  - xii. For the healthy connective tissue.
  - xiii. For a healthy central nervous system.
20. Copper is mainly stored in the liver and spleen.
21. The Copper, content of natural foods is absorbed into the bloodstream shortly after digestion.
22. Copper is distributed to the liver, spleen, kidneys, heart, brain, bones and muscles.
23. Copper traces are found in every body tissue.
24. Copper is necessary for a healthy digestive system.
25. Copper foods assist in all respiration.
26. Copper is necessary for protein utilisation.
27. Copper is needed to colour the skin and hair.
28. Copper enables the blood to carry oxygen.
29. Copper enables the body to use vitamin C.

#### iv. SYMPTOMS WHEN COPPER IS EXCESSIVE.

1. Copper excess may be either chronic or acute.
  - i. Chronic symptoms mainly include; colic; diarrhoeas; cough; and difficulty with assimilation of food.
  - ii. Acute Copper poisoning is rare, with symptoms of violent stomach cramps, vomiting, pale face, icy cold extremities, restlessness at night and violent headaches.
  - iii. If the sufferer survives acute copper poisoning then liver disease always follows.
  - iv. Copper toxicity can result from contaminated swimming pools; drinking water; copper water pipes; metal utensils; fungicides; environmental pollution; cigarette smoking; hormone therapy; and certain foods high in copper.
  - v. An excess of Copper should be considered in those who suffer from anaemia; haemochromatosis; cirrhosis and atrophy of the liver; tuberculosis; cancer; Wilson's disease; and hyper-excitability.
  - vi. An increase in Copper absorption is often found in pregnancy and those suffering from rheumatoid arthritis, cirrhosis of the liver, myocardial infarction, schizophrenia, tumours, and severe infection.
2. Copper is excessive in the human body when symptoms appear periodically and in groups.
3. When the mental attitude is fixed, malicious and morose.
4. When the person suffers violent and contractive convulsions, which begin in the fingers and toes.
5. When the epilepsy aura begins at the knees, ascends to the hypogastrium, and is followed by unconsciousness, foaming, and falling.
6. When there are cramps in the calves and soles of the feet.
7. When the head is purple, and feels swollen with a bruise pain in the brain and in the eyes on turning.
8. When there is a sensation as if water were being poured over the head.
9. When giddiness accompanies many ailments, and with the head falling forwards onto the chest.
10. When there is an aching over the eyes.
11. When the eyes are fixed, staring, sunken, glistening and turned upwards.
12. When the eyes are shut and the eyeballs roll rapidly.
13. When the pale face is bluish and is distorted by a contraction of the jaw, with foam at the mouth.
14. When the nose has a violent sensation of congested blood.
15. When the mouth has a strong metallic, slimy taste, with a large flow of saliva.
16. When there is constant protrusion and retraction of the tongue like a snake.
17. When there is nausea, and vomiting which is only relieved by drinking cold water.
18. When the abdomen is tense, hot and tender to the touch.
19. When there is neuralgia of the abdominal viscera with violent and intermittent colic.
20. When the stool is black, painful, bloody, and there is tenesmus and weakness.
21. When the menses are too late and protracted and occur with cramps which extend into the chest, before, during, or after suppression of the menses.
22. When there is fatty degeneration of the heart, with palpitations, praecordial anxiety and pain.
23. When there are spasms and constriction of the chest; and spasmodic asthma, alternating with spasmodic vomiting.
24. When the cough has a gurgling sound which is improved by drinking water.

25. When there are spasms of the throat and dyspnoea with epigastric uneasiness.
26. When skin is bluish and marbled and skin is prone to ulcers, itching spots, and pimples at the folds of the joints.
27. When there is chronic psoriasis.
28. When the sleep is profound with shocks in the body and constant rumbling in the abdomen.

**v. SYMPTOMS WHEN COPPER IS DEFICIENT.**

1. Copper deficiency symptoms involve virtually every body system.
  - i. Copper deficiency is quite rare.
  - ii. Those who eat processed foods will deplete their reserves of Copper.
  - iii. Those who eat organically grown food high in cadmium will deplete their Copper reserves.
  - iv. Those who have an excessive amount of zinc within the system will have low Copper reserves.
  - v. Those who take hormone therapy will diminish their Copper supplies.
2. Copper is deficient in the human body when symptoms appear periodically and in groups.
3. When the quality of the blood is poor and the stores of iron are depleted.
4. When there is cyanosis.
5. When there is tiredness and shortness of breath.
6. When there is general weakness.
7. When the skin loses its elasticity and sags and ages quickly.
8. When there is fatty degeneration of the heart and angina pectoris is present.
9. When the pulse is slow or hard, full and quick.
10. When there is poor growth and development especially of the bones.
11. When the skeletal structure is deformed.
12. When the bones do not heal.
13. When there a loss of minerals in the bone.
14. When the bone fractures easily.
15. When there is poor skin pigmentation.
16. When the hair has lost its colour.
17. When the hair falls out.
18. When the covering of the spinal cord disintegrates.
19. When the central nervous system shows signs of weakness.
20. When there are ulcers on the skin that do not heal.
21. When the skin is itchy.
22. When there are sores that do not heal.

**vi. PEOPLE WHO REQUIRE COPPER FOODS.**

1. Copper is used as a nutritional supplement for anyone receiving prolonged feeding into the veins or through a tube into the stomach.
2. Copper is an essential component of a number of proteins and enzymes, thus those suffering from any type of wasting disease will require Copper.
3. People who live on processed foods will require Copper as this reduces normal Copper absorption.
4. People who have trouble with digestive function, bowels, kidneys, blood and bone.
5. Copper deficiencies will affect practically every system of the human body. Copper imbalance does not have a particular 'character', hence the general symptoms and specific complaints will lead to the prescription.



**vii. PRINCIPAL COPPER FOODS (ALPHABETICALLY ARRANGED).**

Almonds,  
Avocado,  
Barley,  
Brazil nuts,  
Buckwheat,  
Cauliflower,  
Dry split peas,  
Hazelnuts (filberts),  
Lamb chops,  
Legumes,  
Liver,  
Molasses black strap,  
Millet,  
Mushrooms,  
Mussels,  
Nuts,  
Oats,  
Organ meats,  
Oyster,  
Peanuts,  
Pecans,  
Seafood,  
Salmon,  
Soybeans,  
Walnuts,  
Wheat germ and Whole grains.

Convenience foods, condiments, sweets and beverages are high in Copper.

**PLEASE REFER TO APPENDIX A.2. FOR FURTHER INFORMATION ENTITLED:  
IDIOSYNCRASY AND MINERAL IMBALANCE OF COPPER.**

## **7.iii. SELENIUM.**

### **i. SELENIUM IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Name: Selenium.  
Symbol: Se  
Atomic number: 34  
Relative atomic mass: 78.96
2. Selenium was discovered by Berzelius in sulphuric acid, and was prepared from the pyrites in the mines at Fahlun in 1818.
3. Selenium occurs on the elemental scale between sulphur and tellurium.
4. Selenium belongs to the VIb group in the periodic table of elements, along with tellurium and polonium.
5. Selenium is found either in its natural state, or, more often, as a metallic selenide.
6. Selenium is found in varying amounts in the soil, so the selenium content of food is directly related to the condition of the soil.
7. Selenium is found in vegetables.
8. Tuna is a rich source of Selenium.
9. Selenium is known to inhibit alcoholic fermentation by yeast and the activity of certain respiratory enzymes.
10. Many soils in China and parts of Australia are deficient in Selenium.
11. Many Governments including those in America and Australia have restricted the supply of supplemental Selenium.

### **ii. SELENIUM, ITS NATURE AND CHARACTERISTICS.**

1. Selenium is required for normal growth and fertility and for the prevention of a wide variety of diseases that occur in animals and man if on a Selenium deficient diet.
2. Dietary liver necrosis in rats, multiple necrosis in mice, muscular dystrophy and heart necrosis in minks, exudative diathesis in chicks and turkeys, stiff lamb disease and ill thrift in sheep, white muscle disease in calves, and liver dystrophy and muscle degeneration in pigs, to name a few, occur if Selenium is deficient.
3. These diseases can be prevented by Selenium supplementation.
4. Selenium is an essential part of the immune system in all living organisms.
5. Selenium is involved in a variety of biological processes in every living organism.
6. Selenium works closely with vitamin E in the promotion of normal body growth and fertility.
7. Some of the disorders induced by a dietary means are responsive either to Selenium or to Vitamin E, indicating that a close relationship exist between the two nutrients.
8. Selenium is a constant constituent in the bones and the teeth of all living things.

### **iii. FUNCTIONS OF SELENIUM IN THE HUMAN ORGANISATION.**

1. Selenium is an essential trace mineral.
2. The highest concentration of Selenium in the human body is found in the renal cortex, the pancreas, the pituitary, and the liver.
3. The concentration of most of the Selenium present in the body is variable.
4. If Selenium is present in the faeces, this indicates improper absorption.
5. Selenium has two vitamin helpers, vitamin E and vitamin A. These three substances enhance each other's actions. Vitamin E has a "sparing effect" on Selenium.

6. Selenium protects the cell membranes, cell nuclei and the chromosomes from damage.
7. Selenium therefore protects normal healthy tissue, while it slows the growth of cancer cells.
8. It appears that Selenium may prevent cancer partly by delaying cell division long enough for a damaged cell to repair its chromosomes.
9. An adequate supply of Selenium may provide effective resistance to cancers of the intestines, the rectum, the breast, the ovary, the prostate, the lung, the pancreas, the skin, the kidney and the bladder.
10. Selenium not only slows cell reproduction, but also promotes the formation a substance that turns reactive particles that can destroy a cell into harmless water.
11. Selenium plays an important role in the maintenance of a healthy immune system by helping with the production of the body's natural antiviral and anticancer chemicals.
12. Selenium can counteract some of the cancer causing effect of fat, and as it is known that a high fat diet provides a breeding ground for breast tumours, Selenium is a specially important for women prone to breast tumours.
13. Selenium's broadest role is to protect our cells from the low level but constant barrage of cancer inducing chemicals hidden in our air, food and water by removing these and other toxic substances from the system.
14. Kwashiorkor, a protein deficiency disease, has been successfully treated with Selenium.
15. Selenium preserves the elasticity of all skin tissues.
16. Premature ageing is related to Selenium deficiency.
17. Selenium is needed for the improvement of memory and the prevention of depression.
18. If Selenium is depleted than the energy levels will be diminished due to poor pancreatic function.
19. Selenium is required for a healthy reproductive system.
20. Selenium has a marked effect on the genitourinary organs, and often is indicated in elderly men, especially for prostatic and sexual weakness.
21. Selenium is required in very small quantities by the body.
22. Workers at industrial sites that manufacture glass, pesticides, rubber, semiconductors, copper and film are at an increased risk of developing toxic symptoms from inhalation, absorption through the skin and ingestion of Selenium.
23. Selenium is required for the following functions:
  - i. For the formation of enzymes.
  - ii. For a healthy immune system.
  - iii. For healthy eyes.
  - iv. For a healthy heart.
  - v. For a healthy pancreas.
  - vi. For healthy red blood cells.
  - vii. For normal tissue elasticity.
  - viii. For sexual/reproductive function.

#### **iv. SYMPTOMS WHEN SELENIUM IS EXCESSIVE.**

1. Selenium is said to be in excess when there is great debility.
2. When the hair falls out (alopecia).
3. When the teeth decay.
4. When the breath has a sour or garlic odour.
5. When there is nausea and vomiting.
6. When there are chronic liver affections.
7. When the liver is painful.
8. When the liver is enlarged with a fine rash over the liver region.
9. When the stool is constipated, hard and accumulates in the rectum.
10. When the nails are black.
11. When the nails break easily.

12. When the nails fall out.
13. When there is dizziness.
14. When there are dry, scaly, itchy, eruptions in the palms of the hands.
15. When the skin itches about the ankles and in the folds of the skin.
16. When the hair falls out from the brow, the beard and the genitals.
17. When there is itching about the finger joints and between the fingers and the palms of the hand.
18. Symptoms of Selenium toxicity include:
  - i) Bronchial pneumonia.
  - ii) Asthma.
  - iii) Precipitous drop in blood pressure.
  - iv) Red eyes.
  - v) Garlic odour of breath and of the urine.
  - vi) Headaches.
  - vii) Metallic taste.
  - viii) Nose and throat irritation.
  - ix) Difficulty in breathing.
  - x) Vomiting.
  - xi) General weakness.
  - xii) Other associated symptoms include:
    - a. Liver disease.
    - b. Degeneration of the heart muscle.
    - c. Children raised in selenium rich areas show a higher incidence of decayed, missing and filled teeth.
19. Megadose toxicity symptoms include:
  - i) Loss of hair.
  - ii) Loss of nails.
  - iii) Fatigue.
  - iv) Nausea, and vomiting.
  - v) Sour milk breath.

#### **v. SYMPTOMS WHEN SELENIUM IS DEFICIENT.**

1. Selenium is lacking when there is inflammation of the prostate and sexual weakness.
2. When in old age the individual is easily exhausted both mentally and physically.
3. When there is great debility after an exhausting disease.
4. When the mind has lascivious thoughts, with impotency.
5. When mental labour fatigues.
6. When there is extreme sadness, abject despair and uncompromising melancholy.
7. When there is pain over the left eye that is aggravated by walking in the sun or by strong odours.
8. When the scalp feels tense.
9. When there is a headache from drinking tea.
10. When there is incipient tubercular laryngitis.
11. When there is hawking of the throat followed by the raising of transparent lumps of mucus every morning.
12. When there is continual hoarseness of the voice.
13. When there is an early morning cough with bloody mucous expectoration.
14. When the hoarseness is worse during singing.
15. When there is much clear and starchy mucus.
16. When there is a desire for brandy and other strong drinks.
17. When there is a sweetish taste in the mouth.
18. When there are hiccoughs and eructations after smoking.
19. When there is a pulsation all over after eating, especially in the abdomen.
20. When there is a sensation in the tip of the urethra as if a biting drop were forcing its way out.
21. When there is involuntary dribbling of urine.

22. When there are cataracts.
23. When there is dribbling of semen during sleep.
24. When there is dribbling of prostatic fluid.
25. When there is irritability after coitus.
26. When the male has an increased desire but has decreased ability to perform sexually.
27. When the semen is thin, and odourless.
28. When the male suffers from sexual weakness.
29. When on attempting coition, the penis relaxes.
30. When there is a hydrocele.
31. When there is seborrhoea oleosa of the skin.
32. When there are comedones with an oily surface to the skin.
33. When there is acne.
34. When there are paralytic pains in the small of the back in the morning.
35. When there are tearing pains in the hands at night.
36. When the symptoms are worse after sleep.
37. When the symptoms worsen in the hot weather.
38. When the symptoms worsen from Cinchona.
39. When the symptoms worsen if there is a draught of air.
40. When the symptoms are worse after coition.
41. AT SUCH TIMES A DIET RICH IN SELENIUM IS NEEDED.

**viii. PRINCIPAL SELENIUM FOODS (ALPHABETICALLY ARRANGED).**

1. Asparagus,  
Brazil nuts,  
Brewer's yeast,  
Broccoli,  
Cabbage,  
Eggs,  
Fish,  
Garlic,  
Lobster,  
Meats,  
Onions,  
Organ meats,  
Scallops,  
Seafood,  
Shrimps,  
Tomatoes,  
Tuna,  
Turnips,  
Wheat germ,  
Whole grains.
2. Shrimps 1 pound = 267 micrograms.  
Mushrooms 1 cup = 8 micrograms.

**PLEASE REFER TO APPENDIX A.3. FOR FURTHER INFORMATION ENTITLED:  
IDIOSYNCRASY AND MINERAL IMBALANCE OF SELENIUM.**

## **7.iv. ZINC.**

### **i. ZINC IN THE MINERAL AND VEGETABLE KINGDOMS.**

1. Name: Zinc,  
Symbol: Zn  
Atomic number: 30  
Relative atomic mass: 65.39
2. Zinc is a soft, blue white metal of moderate hardness.
3. Zinc does not corrode and is therefore used to 'galvanise' metals to protect them from corrosion, as well as in alloys such as brass.
4. It has many uses, for example, in dry batteries, radios, zips, car parts, electrical fuses, roofing and guttering, cable wrappings and organ pipes.
5. Zinc as a trace element is essential for both plants and animals and is found in most foods.
6. Zinc deficiency in humans causes loss of appetite and sense of taste, and slow healing.
7. Zinc ointments to promote healing have long been used in medicine.
8. Zinc is mildly astringent and protective to the skin and is used in dusting powders and lotions such as calamine, where it is combined with iron.
9. Zinc is made into homeopathic preparations by heating pure zinc and then grinding it to a fine powder. It is then triturated and diluted by succussion.

### **ii. ZINC, ITS NATURE AND CHARACTERISTICS.**

1. Zinc will bind with high fibre cereal products such as wholemeal bread. Thus too much of these products in the diet will lead to a zinc deficiency.
2. Intestinal parasites may also lead to a zinc deficiency, as these can compromise nutrient absorption by the gut.
3. If the soil is deficient in zinc, then this will lead to a poor dietary intake and result in low zinc levels.

### **iii. FUNCTIONS OF ZINC IN THE HUMAN ORGANISATION.**

1. The human body contains between 1 to 2.5 grams of zinc.
2. Zinc is vital for the development of children's bones and teeth.
3. Zinc is mainly stored in the bones, the teeth, the hair, the skin, the liver, the muscles and the testes.
4. Hair analysis can give an accurate assessment of the zinc present in an individual.
5. Zinc concentrations within the human body vary according to dietary intake and various disease states.
6. Zinc is one of the main healing minerals of the body.
7. Zinc is necessary for the repair of bone fractures.
8. Zinc is essential for healthy hair.
9. Zinc is necessary for the proper digestion of proteins and carbohydrates.
10. The organic zinc content is often lacking in refined carbohydrates.
11. Without Zinc the body cannot utilise sugar.
12. Zinc is necessary for a healthy prostate gland.
13. Zinc also is required for the manufacture of various male hormones and for the normal development of the genital organs.
14. Zinc is an essential mineral for growth.
15. All human tissues contain zinc, especially the thyroid gland, the pancreas and the reproductive organs.
16. A prolonged deficiency of zinc may lead to acne, diabetes, dermatitis, retarded growth and ulcers.

17. Zinc is required by the body to break down alcohol.
18. An excessive consumption of alcohol can lead to a zinc deficiency.
19. Zinc is required for the following functions:
  - i. For the maintaining of normal taste and smell.
  - ii. For normal growth and development.
  - iii. For the healing of wounds.
  - iv. For a normal healthy baby.
  - v. For the manufacture of new healthy cells.
  - vi. For the formation of healthy bones.
  - vii. For a healthy heart.
  - viii. For healthy joints.
  - ix. For a healthy liver.
  - x. For a healthy prostate gland.

#### **iv. SYMPTOMS WHEN ZINC IS EXCESSIVE.**

1. Zinc toxicity from inhalation is rare but can occur in some of the following occupations: In alloy manufacturing, brass foundry work, bronze foundry work, electric fuse manufacturing, gas welding, electroplating, galvanizing, paint manufacturing, metal cutting, metal spraying, rubber manufacturing, roof manufacturing, zinc manufacturing.
2. Zinc is in excess when there is lethargy and stupor.
3. When there is drowsiness.
4. When there is light-headedness.
5. When there is difficulty in writing.
6. When there is a staggering gait.
7. When there is restlessness.
8. When there is such excessive vomiting that dehydration occurs.

#### **v. SYMPTOMS WHEN ZINC IS DEFICIENT.**

1. Zinc is deficient when there is loss of taste and smell.
2. When there is suboptimal growth in children.
3. When there are patches of hair loss.
4. When there are skin rashes and multiple skin lesions.
5. When there is inflammation of the tongue.
6. When there is inflammation of the inside mouth.
7. When there is inflammation of the eyelids.
8. When the nail lifts from the nail bed.
9. When there is sterility.
10. When there is a low sperm count.
11. When there is delayed wound healing.
12. When there is delayed bone maturation.
13. When there is an enlarged liver and spleen.
14. When there is a decreased size of the testicles.
15. When the testicular function is less than normal.
16. When the growth is decreased or dwarfism occurs.
17. When there is infertility.
18. When there are symptoms of an immune deficiency disease.
19. When there are recurrent infections.
20. When there is fatigue, diarrhoea, unexplained weight loss and fever.
21. When there are swollen lymph glands.

#### **vi. PEOPLE WHO REQUIRE ZINC FOODS**

1. Zinc is indicated for those who are weary and run down from stress and overwork.
2. People who have difficulty in thinking because of nervous exhaustion.
3. Anyone with a deficient food intake or on an inadequate diet.
4. Vegetarians often require zinc supplementation.

5. Preschool children and people over the age of 55 years will have increased needs for Zinc.
6. Women require extra Zinc during pregnancy and when breast-feeding.
7. Individuals who abuse alcohol or other drugs will deplete their body's Zinc reserves.
8. People with a chronic wasting illness or those who experience excessive stress for long periods of time will require extra Zinc.
9. Individuals who have had recent surgery, especially if a portion of the gastrointestinal tract has been removed will need Zinc.
10. If there has been severe or recent burns then Zinc is necessary.
11. Anyone who is being treated with hormones or who takes diuretics for reasons such as high blood pressure, congestive heart failure or liver disease, will need Zinc foods.
12. If the soil is deficient in Zinc, the food plants grown in it will be deficient also.

**vii. HELPFUL HINTS.**

1. Zinc is needed when there is trembling, twitching and jerking.
2. When the symptoms tend to be worse at night, from drinking wine and after eating, although they may feel better while actually eating.
3. When there is an empty feeling in the stomach around 11 a.m. in the morning.
4. When the legs feel weak and twitchy, especially at night.
5. When the person feels exhausted but fidgety.
6. When there is a great desire to keep the legs moving.
7. When in a childhood illness like measles, the rash does not appear properly and the child is left feeling weak and low and twitchy, and possibly becomes chesty.
8. When the patient has great difficulty in thinking due to nervous exhaustion.
9. When the thoughts wander.
10. When the person is slow to answer.
11. When they repeat the question before answering.
12. When they forget what they are saying halfway through the conversation.
13. When there is depression.
14. When there is irritability.
15. When there is a general feeling of being worn out.
16. When there is pain in the coccyx, in the neck and in the spine.
17. When there is an aching, sore and bruised feeling, combined with weakness.
18. When the symptoms are worse from sitting or writing.
19. When the whole back feels sore and weak from too much stress.
20. When the legs feel weak and twitchy, especially in bed at night.
21. When eyes are sore, gritty and burn.
22. When the eye symptoms are worse during the evening, at night and after drinking wine.
23. When there is a feeling of sand in the eyes, especially in the inner corners.
24. When there is a general aggravation of symptoms during the evening and night so that the eyes water.
25. When there are nervous headaches.
26. When there are tearing and bursting pains in the forehead and in the sides of the head and in the temples.
27. When the headache improves with fresh air.
28. When the headache is worse after drinking wine.
29. When the headache is caused by overwork.
30. When the headache is bilateral or unilateral.
31. When the patient has a pale face.
32. When there are white spots on the fingernails.
33. AT SUCH TIMES A DIET HIGH IN ZINC FOODS IS NEEDED.



**viii. PRINCIPAL ZINC FOODS (ALPHABETICALLY ARRANGED).**

1. Beef liver,  
Brewer's yeast,  
Egg yolks,  
Lecithin,  
Meat,  
Mushrooms,  
Nuts,  
Onions,  
Peas,  
Poultry,  
Seafood,  
Seeds,  
Soybeans,  
Spinach,  
Sunflower and pumpkin seeds,  
Wheat germ,  
Whole grains (preferably sprouted).
2. Oysters 1 pound = 338 milligrams of Zinc.  
Pumpkin seed 1 cup = 17 milligrams of Zinc.

**PLEASE REFER TO APPENDIX A.4. FOR FURTHER INFORMATION ENTITLED:  
IDIOSYNCRASY AND MINERAL IMBALANCE OF ZINC.**

## **7.v. APPENDIX A**

### **1. IDIOSYNCRASY AND MINERAL IMBALANCE OF CHROMIUM.**

1. When Chromium interacts with insulin the combined effect may cause a decrease in the amount of insulin needed to treat diabetes.
2. When Chromium interacts with sugar, the sugar is partially destroyed by the chromium.
3. Chromium aids the transport of amino acids to the liver and heart.
4. Chromium enhances the effects of insulin in the utilisation of glucose.
5. Chromium makes insulin more efficient at this task, so that you need less to accomplish the job. High insulin levels in the blood are thought to be associated with hardening of the arteries. The connection between Chromium, insulin and atherosclerosis is quite significant. Medical research has examined samples from human aortas from areas of the world where atherosclerosis is very low, and compared them with samples of human aortas where atherosclerosis is more prevalent. The Chromium levels were considerably greater in accident victims as compared to those who had died from coronary artery disease (atherosclerotic heart disease).
6. Research also tested the effects of Chromium supplementation on glucose tolerance, insulin and serum lipids, including the HDL cholesterol. Over a twelve week period twenty-three adult males aged between 31 and 60 years, were given either 200 micrograms of Chromium or a placebo for five days each week. At the end of the experiment, a significant increase in the HDL cholesterol, a decrease in weight and a trend towards decreased triglycerides and insulin levels were noted in those who had the Chromium supplementation. None of these benefits were shown in the placebo group.

## 2. IDIOSYNCRASY AND MINERAL IMBALANCE OF COPPER.

1. Cadmium can interfere with copper absorption and utilisation.
2. Fibre can interfere with copper absorption and utilisation.
3. Molybdenum maintains appropriate ratio of copper in the body. If there are excessive amounts of copper, the molybdenum level drops. If there is an excessive amount of molybdenum in the body then the copper level drops.
4. Oral contraceptives increase copper levels, however the significance of this is unknown at the present time.
5. Phytates, which are found in certain cereals, can interfere with copper absorption and utilisation.
6. Vitamin C decreases absorption of copper. Large doses of vitamin C must be taken to produce this effect.
7. Zinc can interfere with copper absorption and utilisation.
8. Copper is present in two key enzymes of aerobic metabolism:-
  - i. Cytochrome c oxidase, which is responsible for the major part of the oxygen consumed by life on this planet.
  - ii.) Cytosolic superoxide dismutase, which catalytically scavenges the toxic free radical superoxide ion generated during aerobic metabolism.
9. Copper is an essential component of a number of proteins and enzymes, including lysyl, hydroxylase, dopamine beta-hydroxylase.
10. Plasma copper levels may increase in pregnant women and in people with rheumatoid arthritis, cirrhosis of the liver, myocardial infarction, schizophrenia, tumours, and severe infection.
11. Plasma copper levels decrease with hypothyroidism, dysproteinuria of infancy, kwashiorkor, sprue, and nephrosis.
12. In copper deficiency, iron absorption by the mucosal cells appears to be unaffected but the release of iron into the plasma is impaired.
13. The movement of iron from the ferritin stores to the plasma with resulting hypoferraemia occurs because the ceruloplasmin synthesis is decreased. Anaemia develops in all species due to depressed haeme synthesis.
14. Weight loss and death results in all those who are severely deficient in copper.
15. Low cytochrome oxidase activity appears to be the primary metabolic lesion resulting in neonatal ataxia.
16. The decrease in endogenous ATP synthesis resulting from the depression of aerobic metabolism leads to an inhibition of phospholipid synthesis required for myelin formation.
17. In copper deficiency there is a reduction in the amine (lysyl) oxidase activity resulting in bone and cardiovascular disorders.
18. Inhibition of the amine (lysyl) oxidase enzyme leads to diminished stability and strength of the bone collagen and the aortic elastin as a result of impaired cross linkage of their polypeptide chains.
19. Wilson's disease, or hepatolenticular degeneration, is associated with abnormalities in the metabolism of copper. Excessive copper absorption from the intestine, inadequate excretion of copper via the intestine, and synthesis of an abnormal liver protein with a high affinity for copper may be factors in the genesis of Wilson's disease.
20. Hypercupraemia is present in many acute and chronic microbial infections in humans. There is a copper redistribution from the liver to the blood, which is believed to be initiated by a leukocytic endogenous mediator (LEM) that stimulates liver ceruloplasmin synthesis.

### **3. IDIOSYNCRASY AND MINERAL IMBALANCE OF SELENIUM.**

1. Vitamin C may decrease selenium absorption if taken with an inorganic form of selenium.
2. Selenium works closely with vitamin E and the sulphur containing amino acids in certain metabolic actions and in the promotion of normal body growth and fertility.
3. Some of the disorders induced by a dietary means are responsive either to Selenium or to Vitamin E, indicating that a close relationship exists between the two nutrients.
4. However, certain diseases are apparently caused by a deficiency that responds specifically to one nutrient but not the other. The role of Selenium in hydroperoxide destruction through glutathione peroxidase activity is one of these.
5. Vitamin A enhances the actions of Selenium within the body.
6. It appears that Selenium may prevent cancer partly by delaying cell division long enough for a carcinogenically altered cell to repair its chromosomes.
7. An adequate supply of Selenium may provide effective resistance to cancers of the intestines, the rectum, the breast, the ovary, the prostate, the lung, the pancreas, the skin, the kidney and the bladder.
8. Selenium not only slows cell reproduction, but also promotes the formation of an enzyme substance (glutathione peroxidase), which turns reactive particles that can destroy a cell into harmless water.
9. Selenium plays an important role in the maintenance of a healthy immune system by helping with the production of interferon, which is the body's natural antiviral and anticancer drug.
10. Selenium can counteract some of the cancer causing effect of fat, and as it is known that a high fat diet provides a breeding ground for breast tumours, Selenium is a special blessing for women who genetically are at risk of breast cancer.
11. Selenium's broadest role is to protect our cells from the low level but constant barrage of carcinogens hidden in our air, food and water by removing these and other toxic substances from the system.
12. Current studies suggest that selenium is involved in a variety of other important biological processes including the immune mechanisms, ubiquinone biosynthesis, and mitochondrial ATP biosynthesis.
13. Selenium is known to inhibit alcoholic fermentation by yeast and the activity of certain respiratory enzymes, possibly by forming complexes with essential enzyme sulfhydryl groups.
14. Selenium is required for normal growth and fertility and for the prevention of a wide variety of diseases that can be induced in experimental animals by dietary means.
15. Selenium supplementation can prevent dietary liver necrosis in rats, multiple necrosis in mice, muscular dystrophy and heart necrosis in minks, exudative diathesis in chicks and turkeys, stiff lamb disease and ill thrift in sheep, white muscle disease in calves and liver dystrophy and muscle degeneration in pigs to name a few.

#### **4. IDIOSYNCRASY AND MINERAL IMBALANCE OF ZINC.**

1. Zinc will chelate to phytates and high fibre products such as those found in whole meal bread. Thus too much of these products in the diet will lead to a deficiency of Zinc.
2. Parasites in the gut may also lead to a zinc deficiency, due to their interference with normal absorption.
3. Zinc interferes with the calcium absorption.
4. Zinc decreases the absorption of copper. Large doses of Zinc must be taken to produce this effect.
5. If the patient is taking cortisone drugs then this will interfere with lab tests for Zinc levels.
6. Oral contraceptives lower Zinc blood levels.
7. Diuretics increase Zinc excretion.
8. Zinc decreases the absorption of iron.
9. Zinc decreases the amount of tetracycline absorbed into the bloodstream. Zinc and tetracycline should not be mixed. They should be taken at least two hours apart.
10. Zinc assists in the absorption of Vitamin A.
11. Alcohol, even in moderate amounts, can increase the excretion of Zinc in the urine and can impair the body's ability to combine Zinc into its proper enzyme combinations in the liver.
12. Beverages such as coffee should not be consumed at the same time as Zinc because these will decrease the absorption of Zinc.
13. Studies in America indicated that due to a high consumption of milk poor in zinc, children over the age of four years had low zinc status. This presented as poor appetite, poor growth, and impaired taste. When zinc supplementation was given the appetite improved, the growth rate normalised and the taste returned to normal.
14. In the Middle East, a syndrome of dwarfism and hypogonadism with low zinc status has been shown to respond to zinc supplementation.
15. Acrodermatitis enteropathica is an inherited disease characterised by psoriasiform dermatitis, hair loss, paronychia, growth retardation, diarrhoea and death, resulting from an inability to absorb zinc. This disorder resulted in complete remission when zinc sulfate was administered.

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