

Deficiency Report

At Health Unlimited we are concerned about your health. Our aim is to provide tools to help you, and others, effectively manage and monitor your 'wellness'. The following information allows you to examine the role of micronutrients in your body, especially the vitamins and minerals. This report is fourteen (14) pages long and you are welcome to make copies.

There are two sections of the report: one for the major vitamins and one for primary minerals. You will find a simple 'job description' for each nutrient, as well as deficiency symptoms. Read these well. You may realize that you are suffering from numerous signs of nutrient loss. We suggest that you either highlight or circle what applies to you. Pay special notice, also, to the substances and conditions that 'rob' these vitamins and minerals from your system. Limit your use of the 'robbers' whenever possible. Finally, we have listed the beneficial foods sources for each nutrient, many of which are vegetables and fruits. It is wise to add these, as needed.

With modern lifestyles, many people find it hard to eat the recommended 5 - 9 servings a day of fresh raw fruits and vegetables. What makes matters worse is that commercial produce may be picked before it is fully ripe, then sprayed with numerous chemicals and stored for long periods of time. The food industry does a wonderful job and we are fortunate to benefit. Still by the time many food items reach the store shelf, they contain limited nutrition. An ideal situation is to grow your own produce or to buy it from local gardeners.

Canned vegetables and fruit usually lack more than 50-75% of their potential vitamin and mineral nutrients. Frozen produces loses about 30% of its nutrients. *Properly dried* vegetables and fruits often retain the highest level of original vitamins and minerals. Fresh produce is the superior option.

Since the mid 1990's, major health organizations have recommended that we *eat 5 - 9 servings a day of fresh raw fruits and vegetables*. Most people are simply not able to eat that much fresh local produce day to day. What are we to do? Health in the United States and other developed countries is rapidly declining, while the consumption of 'dead, empty food' is on the rise. The result is an alarming increase in serious degenerative diseases such as cancer, diabetes, heart disease, and many immune deficiency diseases. *We must take control of our health. A huge health crisis is looming and it can be prevented...one person at a time...one child at a time.*

The next best thing to fresh produce is high quality whole-food supplements, called nutraceuticals.

At Health Unlimited we work to make the highest quality food supplements easily available to you. A whole food supplement, which is well designed and produced, works synergistically with your body's chemistry. It is bio-available. This means that your body can absorb and use it in an appropriate manner. Synthetic vitamin and mineral pills are often 'isolates' (just one nutrient such as vitamin C or calcium). Science shows us that to mega-dose one or more isolated nutrients can be risky and ineffective. Nutraceutical supplements are more effective because they are food.

So in summary, check below and locate some specific indications of your over-all micronutrient levels. Eliminate or sharply reduce the robbers. Eat more of the beneficial sources; and consider the wise use of superior quality, nutraceutical supplementation. We can help. Check our product line of fruits and vegetables in a capsule (Juice Plus+), also our other top quality products. Be well. Health it is your choice.

Vitamins

Vitamins are the “spark plugs” of the body, keeping it tuned up and running at top performance. They work at a cellular level and are crucial for resistance to disease, growth, vitality and healthy aging. **Deficiencies can be hard to pinpoint because cells in the body will continue to function, but at less and less efficiency until they either receive proper nourishment or suffer irreversible damage.**

Most vitamins cannot be synthesized (made) by the body. Instead, they must be obtained either through food or proper supplementation. Even though synthetic vitamin pills can be helpful, the most effective means of replacing and maintaining nutrients is with good quality food and “**phyto**” (**plant-based**) **chemicals that are called “nutraceuticals”.**

A problem in modern times is that many substances in our diet (such as alcohol, caffeine, sugar, cigarettes and certain medications) actually steal vitamins and minerals. Even small micronutrient deficiencies can endanger the entire body.



VITAMIN A

ROLE: “A” is a fat soluble vitamin. It requires fat, minerals, and enzymes in order to be absorbed and used by the body. This vitamin is especially important for healthy eye sight and night vision. As an anti-infective, vitamin A builds strong immunity and resistance to disease. It also aids in beauty by improving the health of the skin, hair, teeth and gums.

DEFICIENCY SYMPTOMS: Night blindness, itching/burning eyes, eye sties, susceptibility to infections, allergies, sinus trouble, fatigue, acne, skin blemishes, rough and dry skin, loss of smell, soft tooth enamel, dry and brittle hair

ROBBERS:

- 1.) Alcohol
- 2.) Cortisone, laxatives, various medication, nitrates
- 3.) Infections, liver disease, diabetes
- 4.) Deficiency in vitamin D and zinc

BENEFICIAL SOURCES: Carrot and other yellow/orange vegetables, including sweet potatoes; spinach, kale, broccoli and other green vegetables; melons and other orange fruits; eggs; cheese; beef liver (organic)



BETA CAROTENE

ROLE: Beta carotene is called pro-vitamin A because vitamin A converts to beta carotene in the body, as needed. One of its main uses is as an anti-oxidant, neutralizing cancer-causing, free radicals at the skin (the first line of defense). Beta carotene is valuable for immune system support, as an anti-infective. In this role it assists with allergy control and helps with the prevention and reversal of certain cancers.

DEFICIENCY SYMPTOMS: Suppressed immune system, free radical damage, cancer

ROBBERS: See those listed for vitamin A, above.

BENEFICIAL SOURCES: See those listed for vitamin A, above.

VITAMIN B1 (THIAMINE)

ROLE: Thiamine is often called the “morale vitamin”. It supports a positive mental attitude by strengthening the nervous system and helping to combat stress. This vitamin aids digestion, promotes proper growth in children, and assists in all conditions of stress. Two other great benefits of thiamine are that it helps stop motion sickness and wards off mosquitoes and other stinging insects!

DEFICIENCY SYMPTOMS: Depression, irritability, memory loss, nervousness, noise sensitivity, numbness of hands and feet, pain around the heart, appetite loss, digestive problems, constipation, shortness of breath

ROBBERS:

- 1.) Alcohol, caffeine (including coffee, black tea, cola soft drinks), sugar, raw clams
- 2.) Stress, surgery, pregnancy and lactation, hypothyroidism
- 3.) Cigarettes, antacids, diuretics, sedatives, and other medications

BENEFICIAL SOURCES: Blackstrap molasses, raw sunflower seeds, lobster, asparagus, brown rice and other whole grains



VITAMIN B2 (RIBOFLAVIN)

ROLE: Riboflavin is deficient in the modern diet due to over consumption of coffee, alcohol, sugar, and soft drinks; also the under consumption of B2 foods. This is an eye and beauty vitamin, benefiting vision and the prevention of cataracts, while promoting healthy skin, hair, nails and muscle tone (especially in the GI tract).

DEFICIENCY SYMPTOMS: Blurred vision, cataracts, light sensitivity, eye fatigue and burning of the eyes, oily skin and hair, poor digestion

ROBBERS:

- 1.) Coffee, alcohol, sugar, soft drinks
- 2.) Cigarettes, sodium bicarbonate and other medications

BENEFICIAL SOURCES: Blackstrap molasses, brewer’s yeast, raw almonds, wild rice, broccoli, whole milk, yogurt, certain cheeses (brie, ricotta and Swiss)



VITAMIN B3 (NIACIN)

ROLE: Niacin opens up and stimulates circulation. It can act quickly to reverse deficiencies and disorders. A niacin flush is evidence of this; it relieves migraine headaches and vertigo attacks. B3 helps reduce high blood pressure, serum blood fats and cholesterol. It relieves diarrhea and G.I. tract disorders, even acne.

DEFICIENCY SYMPTOMS: Negative personality behavior (especially depression), memory impairment and nervous disorders, migraine headaches, high blood pressure, insomnia, muscular weakness, indigestion, nausea, acne and other skin eruptions (including canker sores).

ROBBERS:

- 1.) Alcohol, caffeine, sugar, refined carbohydrates (white bread, pastries, chips, and many ‘fast’ foods).
- 2.) Antibiotics, liver disease

BENEFICIAL SOURCES: Peanuts, almonds, sunflower seeds, whole grain breads and cereals, avocados, brewer’s yeast, beans and soy products, eggs, seafood

VITAMIN B5 (PANTOTHENIC ACID)

ROLE: Pantothenic acid is a very interesting vitamin. An anti-oxidant, it is essential for effective adrenal activity. This vitamin is important in the prevention and control of arthritis and high cholesterol because it is a precursor to cortisone production. Pantothenic acid helps with natural steroid synthesis (or usage). As a support to the immune system, B5 builds antibodies and thus fights infection. It also defends against stress, fatigue and nervous disorders. After surgery, this vitamin helps with the side effects of medications and is a key to preventing post-operative shock. It also guards against the loss of hair and graying!

DEFICIENCY SYMPTOMS: Lowered resistance to infection, inability to heal an infection, slow recovery after surgery, respiratory infections, fatigue, muscle cramping, lack of muscle coordination, insomnia, hair loss and graying of the hair

ROBBERS:

- 1.) Alcohol, coffee and other caffeine, soft drinks

BENEFICIAL SOURCES: Brewer's yeast, brown rice, wheat and other whole grains, poultry, yams, broccoli, spinach, legumes, salmon and other fish, mushrooms



VITAMIN B6 (PYRIDOXINE)

ROLE: Pyridoxine has long been recognized to support all aspects of nerve health, including epilepsy, convulsions, neuropsychiatric imbalances, and carpal tunnel syndrome. A natural diuretic, B6 controls premenstrual water retention. This nutrient helps alleviate acne, promotes beautiful skin, slows the aging process, and combats morning sickness.

Pyridoxine is a stimulant to the immune system, helping defend against cancer. As such, adequate levels protect the skin and body against the damage of environmental pollutants, smoking and other sources of toxicity. Use of B6 inhibits histamine release in the treatment of allergies and asthma. It also helps in the regeneration of red blood cells, amino acids, protein metabolism, and the utilization of carbohydrates.

DEFICIENCY SYMPTOMS: Acne, skin lesions, convulsions, epilepsy, nervous disorders, depression, learning disabilities, irritability, nausea, water retention, weak immune response, anemia, and lethargy

ROBBERS:

- 1.) Alcohol, coffee and other caffeine, soft drinks, cigarettes
- 2.) Oral contraceptives, post-menopausal hormones, diuretics, antibiotics and other medications

BENEFICIAL SOURCES: Bananas, avocados, brewer's yeast, molasses, trout, blueberries, cabbage and dark green leafy vegetables, legumes, poultry, nuts, and organ meats



VITAMIN B12 (COBALAMIN)

ROLE: B12 works with calcium to enable proper absorption of nutrients. Because its main sources are meat, fish and dairy products, vegetarians can easily become deficient. Signs of the deficiency may not show up for five or more years after the supply is gone. B12 enhances the ability to think and concentrate. It relieves depression, energizes, and helps a hangover!

DEFICIENCY SYMPTOMS: Depression, irritability, nervousness, memory loss and impairment, mental confusion, walking and speaking difficulties, weak reflex response, fatigue, heart palpitations, anemia, weight loss and appetite loss

ROBBERS:

- 1.) Alcohol, cigarettes
- 2.) Long term use of: oral contraceptives, anti-inflammatory and anti-convulsant drugs, laxatives, and medication that lowers cholesterol
- 3.) Liver disease, deficiency in calcium and vitamin B6

BENEFICIAL SOURCES: Beef liver (organic is preferred), trout and other fish, eggs, cottage cheese, milk and other dairy products, meat, spirulina



VITAMIN B15 (PANGAMIC ACID)

ROLE: B15 is a nerve/energy stimulant and an anti-oxidant. It has been used successfully in the treatment of: Down's Syndrome and mental retardation cases; also many nervous and glandular disorders, alcoholism, and cirrhosis of the liver.

DEFICIENCY SYMPTOMS: Disorders of the nervous system, glandular imbalances and heart disease.

ROBBERS:

- 1.) Alcohol, coffee and caffeine, soft drinks

BENEFICIAL SOURCES: Seeds (including sunflower, sesame, and pumpkin), brewer's yeast, whole grains and organ meats (organic preferred)



BIOTIN

ROLE: Another member of the vitamin B-complex family, biotin is a beauty vitamin affecting the skin and hair. It is necessary for the metabolism of amino acids, essential fatty acids, as well as vitamins B5 and B12. A person showing deficiencies in the latter two vitamins are often lacking in biotin. New research on biotin shows its importance in enhancing the immune response and thus helping to control candida and chronic fatigue syndrome. This vitamin is also beneficial after taking repeated rounds of antibiotics (which can be a precursor to candida, chronic fatigue and environmental sensitivities.) Adequate levels of biotin improve glucose tolerance in diabetes, obesity and the above-mentioned diseases.

DEFICIENCY SYMPTOMS: Dermatitis, eczema, dry skin, dandruff, hair loss, fatigue, depression, insomnia, muscular pain, grayish skin color and nausea

ROBBERS:

- 1.) Antibiotics
- 2.) Alcohol, coffee and other forms of caffeine, soft drinks

BENEFICIAL SOURCES: Brewer's yeast, poultry, eggs, peanuts, legumes, tuna and salmon, whole grains, meat

CHOLINE

ROLE: Choline is a member of the B-complex family. A brain nutrient and a neurotransmitter, choline aids memory and the ability to learn. It is effective against Alzheimer's disease and other neurological disorders. As a 'lipotropic,' it works with inositol to emulsify fat. This vitamin helps lower cholesterol, and it supports liver cleansing and functioning. New research shows the benefits of choline for cancer treatment.

DEFICIENCY SYMPTOMS: Dizziness, high blood pressure, high cholesterol, intolerance to fatty foods, impaired liver and kidney functions

ROBBERS:

- 1.) Alcohol, coffee and other caffeine sources, soft drinks, sugar and foods that contain sugar

BENEFICIAL SOURCES: Brewer's yeast, eggs, fish, legumes, tofu and soy products, unrefined vegetable oils, organ meats (organic is preferred).



FOLIC ACID (FOLACIN)

ROLE: Another B-complex, folic acid is primarily responsible for the division and growth of new cells, blood formation and enzyme efficiency. This is why it is essential during pregnancy in order to prevent spina bifida and other birth defects. Folic acid helps control anemia and leukemia, and it is used to assist with alcoholism. Recent studies show that folic acid helps counteract immuno-suppression after chemotherapy.

DEFICIENCY SYMPTOMS: Digestive disturbances with mal-absorption problems such as Crohn's disease and celiac sprue, anemia, growth problems and memory impairment

ROBBERS:

- 1.) Alcohol, coffee and other caffeine sources including soft drinks, cigarettes.
- 2.) Aluminum antacids, oral contraceptives, aspirin, long term use of antibiotics and anti-inflammatory drugs, stress, fever
- 3.) Celiac Sprue disease

BENEFICIAL SOURCES: Salmon, seafood, spinach and dark leafy greens, brewer's yeast, broccoli and other 'cabbage family' plants, citrus and other fruit, whole grains, milk and dairy products, organ meats.



INOSITOL

ROLE: Another B-complex member, inositol metabolizes blood serum levels to lower cholesterol, combat arteriosclerosis and control fatty deposits on the liver. It works in combination with biotin and choline. Adequate levels help reduce the risk of breast and ovarian cancer, also estrogen-related pre-menstrual symptoms. Inositol aids against male pattern baldness and many of the patterns occurring with diabetes.

DEFICIENCY SYMPTOMS: High cholesterol, baldness, hypertension, PMS, diabetes

ROBBERS:

- 1.) Alcohol, coffee and other sources of caffeine including soft drinks

BENEFICIAL SOURCES: Oranges and citrus fruit, peanuts and peanut butter, blackstrap molasses, brewer's yeast, whole grains, almonds, beans, zucchini and other vegetables, meat, milk and dairy products

PABA (PARA-AMINOBENZOIC ACID)

ROLE: B-complex, paba, is a component of folic acid and it protects the skin from damage. External use is effective against sun and other burns. It is utilized in treating vitiligo (depigmentation of the skin), and skin cancers. Other functions of paba include blood cell formation, hair pigmentation, protein metabolism and intestinal bacteria activity.

DEFICIENCY SYMPTOMS: Graying hair, baldness, parasitic diseases, stress

ROBBERS:

- 1.) Alcohol, coffee and other sources of caffeine including soft drinks
- 2.) Sulfa drugs

BENEFICIAL SOURCES: Molasses, brewer's yeast, eggs, brown rice, wheat germ, whole wheat, milk



VITAMIN C (ASCORBIC ACID)

ROLE: An anti-oxidant, Vitamin C has long been appreciated for immune maintenance and strength. It protects against free radical damage, viral and bacterial infections, allergies, cancer, and AIDS. Vitamin C benefits healing after surgery or injury and plays a key role in the formation of collagen tissue. It serves many other functions including: controlling blood clots in the veins, helping with stress by feeding the adrenal glands and it is very effective for alcoholism and drug withdrawal.

DEFICIENCY SYMPTOMS: Low immune response, stress, fatigue, bruising and bleeding, slow healing, receding/bleeding gums, dental cavities, anemia, muscle loss

ROBBERS:

- 1.) Aspirin, oral contraceptives, tetracycline, cigarettes, antihistamines, cortisone and other medications
- 2.) Stress, vitamin A deficiency

BENEFICIAL SOURCES: Citrus fruits, green peppers, papaya and kiwi, tomatoes, broccoli, and many vegetables



BIOFLAVONOIDS

ROLE: Bioflavonoids are part of the C-complex and are essential for its function. They keep arteries from hardening; and strengthen blood vessels, capillaries, veins and connective tissue; also control bruising and internal bleeding. Bioflavs help lower cholesterol and stimulate bile production in the gall bladder. An anti-microbial, they help against infections (including mouth herpes). For the eyes, bioflavs reduce cataract formation and safeguard against diabetic retinopathy.

DEFICIENCY SYMPTOMS: Same as vitamin C; especially the tendency to bruise easily.

ROBBERS:

- 1.) Excessive intake of vitamin C supplements

BENEFICIAL SOURCES: Fruit skin and pulp, apricots, cherries, grapes, grapefruit, lemon and plums; most vegetables; various herbs, especially rose hips

VITAMIN D (CALCIFEROL)

ROLE: Called the 'sunlight vitamin', D is fat-soluble and works with A to utilize calcium and phosphorus in the building of strong bones and teeth. Along with A, it assists with eye problems including: cataracts, conjunctivitis and glaucoma. Helps in normal blood clotting.

DEFICIENCY SYMPTOMS: Softening bones and teeth, arthritic symptoms, muscle cramps, slow healing, nosebleeds, fast heartbeat, psoriasis, nearsightedness, eye diseases, poor metabolism and insomnia

ROBBERS:

- 1.) Lack of sunshine, air pollution
- 2.) Excessive use of laxatives, sedatives and other medications

BENEFICIAL SOURCES: Sunlight, cod liver oil, herring, salmon, tuna, eggs, beef, liver (organic preferred)



VITAMIN E (TOCOPHEROL)

ROLE: Fat-soluble. E is an important anti-oxidant and immune stimulant. It works with selenium to neutralize free radicals and thus protect against aging, cancer and other degenerative diseases. E nourishes the skin, keeping it soft and youthful. It supports pigmentation, helps control dandruff, aids in healing wounds and burns, promotes nerve and muscle health, retards cellular and mental aging, alleviates fatigue and soothes menopausal hot flashes due to estrogen imbalance.

DEFICIENCY SYMPTOMS: Weakened immune response, skin problems (including dry skin), hair problems (including dry, dull or falling hair), fatigue, muscle weakness and wasting, nervousness

ROBBERS:

- 1.) Oral contraceptives, over use of laxatives, air pollution

BENEFICIAL SOURCES: High quality, cold-pressed vegetable oils; brown rice and whole grains, wheat germ and wheat germ oil, almonds, leafy green vegetables, salmon, tofu and soy products, nuts, fruits, meat



VITAMIN K (PHYLLOQUINONE)

ROLE: K is fat-soluble and keeps the blood thick for proper clotting when needed. Note: doctors may reduce the levels of vitamin K through medication in cases of arterial clotting or after certain surgeries. K aids in stopping post-menopausal brittle bones and bone loss in general; and it works to combat cirrhosis and jaundice (hepatitis) of the liver. Adequate levels of vitamin K help with excessive menstrual bleeding; and offer a natural anti-parasiticide for intestinal worms.

DEFICIENCY SYMPTOMS: Excessive bleeding, heavy menstruation, bone loss, intestinal parasites

BENEFICIAL SOURCES: Sea vegetables, seafoods, leafy green vegetables, eggs, cruciferous vegetables (cabbage family), sprouts

Minerals

Minerals and trace minerals are the foundation upon which life and health is built. **These nutrients cannot be made or synthesized by the body, therefore they must be obtained from food**, supplements, beverages, or in some rare cases mineral baths. **The modern diet and lifestyle leaves most Americans depleted in many essential minerals.**

Adequate levels of each mineral are essential to proper pH of the body, to enzyme activity, and to emotional balance among other important functions. Read about each of the main minerals explained below in order to understand the specific job, deficiencies, substances which robbes and beneficial food sources.



BORON

ROLE: Boron is an important trace mineral catalyst, which enhances calcium utilization and uptake by the bones. Adequate levels deter the onset of osteoporosis. It can be helpful in the treatment of arthritis and osteoporosis when present.

DEFICIENCY SYMPTOMS: Similar for calcium deficiency. Look below.

ROBBERS: Unknown

BENEFICIAL SOURCES: Many vegetables and fruits (including apples, pears, and grapes), also nuts



CALCIUM

ROLE: Calcium is the most abundant mineral in the body and one, which is frequently depleted due to our modern lifestyle. Calcium needs vitamin D in the diet in order to be adequately absorbed. It works with phosphorus to build and maintain strong teeth and bones and it works with magnesium for cardiovascular health, keeping the heart, veins and arteries elastic. Calcium is needed for the blood to clot, to maintain healthy nerves, to control anxiety and depression, to insure quality rest and sleep, to prevent osteoporosis, to keep blood pressure adequately low, and to prevent muscle cramps.

DEFICIENCY SYMPTOMS: Brittle finger nails, tooth decay, dental cavities and periodontal disease, muscle cramps of all kinds (including menstrual pain), arm and leg numbness, fragile bones, heart palpitations, insomnia, nervous disorders (including irritability, nervousness, tension, stress, anxiety, and depression), PMS, high blood pressure

ROBBERS:

- 1.) Coffee, caffeine, soft drinks
- 2.) Saturated fats found in: meat, cheese; trans fats found in much processed oils and foods
- 3.) Diuretics, and other medications
- 4.) Excessive stress, lack of exercise, and vitamin D deficiency

BENEFICIAL SOURCES: Seaweeds (especially kelp), kale, parsley and other dark leafy green vegetables. Broccoli and other dark green vegetables, salmon, shellfish, sesame seeds, legumes, molasses, milk and dairy products **NOTE:** Many of us were taught that dairy products are good sources of calcium. Calcium *is* abundant in these foods, however the high amounts of saturated fat makes this calcium *less available to the body* than in most of the other sources listed above.

CHROMIUM

ROLE: Chromium is essential for blood sugar regulation and glucose tolerance. This mineral is deficient in much of the soil in the United States and other countries and therefore deficient in the food. According to USDA studies, 90% of all Americans suffer some deficiency in chromium.

DEFICIENCY SYMPTOMS: Deficiencies can result in diabetes or hypoglycemia, impaired glucose tolerance, obesity, increased serum cholesterol, protein/calorie malnutrition, heart trouble, and premature aging.

ROBBERS:

- 1.) Refined carbohydrates (sugar, white rice white flour products including: bread, pasta, pastries, et cetera)
- 2.) Repeated pregnancies, aging
- 3.) Excessive intake of synthetic iron, insufficient daily protein intake

BENEFICIAL SOURCES: Whole grains, brewer's yeast, clams, unrefined corn oil, raisins, honey, meats.



COBALT

ROLE: Cobalt is an integral factor in the synthesis of vitamin B12. It promotes the formation of hemoglobin.

DEFICIENCY SYMPTOMS: Depression, irritability, nervousness, memory loss and confusion, walking and speaking difficulties, weak reflex response, fatigue, heart palpitations, anemia, weight loss and appetite loss

ROBBERS: Unknown

BENEFICIAL SOURCES: Dark leafy green vegetables, beef liver (organ preferred)



COPPER

ROLE: Copper affects the blood, bones, circulatory system, hair, skin, and emotional/mental states (including depression). It does so by aiding: red blood cell production, iron absorption, protein metabolism, bone formation and the healing process in general. Copper helps in the control of arthritis/bursitis symptoms, hair loss, and the maintenance of hair color.

DEFICIENCY SYMPTOMS: Depression, general weakness, hair loss, skin sores, bone fractures and deformities, osteoporosis, elevated serum cholesterol, impaired respiration, diarrhea in infants

ROBBERS:

- 1.) Oral contraceptives, excessive intake of synthetic zinc, cadmium (metal toxicity)

BENEFICIAL SOURCES: Oysters and other seafood, tofu and soy products, Brazil nuts, raisins, whole grains, legumes, nuts, avocado, cauliflower, blackstrap molasses, organ meat (organ preferred)

IODINE

ROLE: Iodine is a major function in thyroid function and proper metabolism. It is necessary for adequate wound healing; also skin, hair and nail health. Iodine can block toxicity from radiation. After the dropping of the atomic bomb on Japan in World War II several hospitals in the area fed large doses of seaweed to radiation suffers. This application is believed to have helped save hundred of lives.

DEFICIENCY SYMPTOMS: Confused thinking, fatigue, menstrual difficulties, wounds which do not heal, weak nails and hair; and in extreme cases, goiter

ROBBERS: Unknown

BENEFICIAL SOURCES: Kelp and other sea vegetables, lobster, shellfish and other seafood



IRON

ROLE: Iron's most important job is to keep the blood rich in oxygen. It does so by combining with proteins and copper to produce hemoglobin. When the blood and cells are high in oxygen, harmful (anaerobic) bacteria have a harder time of entering. Smoking cigarettes can limit the ability of oxygen to nourish the bloodstream. Adequate levels of iron help one to be strong and lively, and to have bright eyes, radiant skin and lush hair.

DEFICIENCY SYMPTOMS: Pale skin, fatigue, weak immunity, menstrual problems, anemia, brittle nails, breathing difficulty, constipation, and possible sore or inflamed tongue

ROBBERS:

- 1.) Blood loss, chronic diarrhea, repeated pregnancies
- 2.) Coffee, tea, soft drinks and other caffeine products
- 3.) Antacids, and over use of synthetic supplements including: calcium, magnesium, copper, manganese, phosphorus, thiamine and zinc

BENEFICIAL SOURCES: Seaweed, shellfish (especially oysters), fish, eggs, cherries, dried fruit (especially raisins), molasses, dark leafy green vegetables, lean meat, whole grains, poultry, legumes and beef liver (organic is preferred)



LITHIUM

ROLE: This is a mineral from the Earth's crust. Medical use of lithium has been utilized in treating manic-depressive disorders, hyper kinesis in children, epilepsy, migraine headaches, alcoholism and drug withdrawal. Lithium excess can be a side effect when use of pharmaceutical lithium is prescribed.

DEFICIENCY SYMPTOMS: Psychological and neurological problems listed above, especially bi-polar disorder and hyper-activity.

ROBBERS:

- 1.) Modern lifestyle and dietary habits, including caffeine, sugar, soft drinks and alcohol usage

BENEFICIAL SOURCES: Whole grains, seeds, certain mineral water

MAGNESIUM

ROLE: Magnesium is essential for good nerve and muscle functioning, as well as endurance and exercise capacity. Adequate magnesium counteracts: stress, nervousness, emotional instability, depression and PMS symptoms. It calms and relieves hyperactivity and twitching in children, and can ease menstrual cramps. This nutrient is needed for restful sleep and proper metabolic activity. It helps regulate heart and kidney health. Magnesium enhances the absorption and utilization of other minerals.

DEFICIENCY SYMPTOMS: Anxiety, confusion, disorientation, hyperactivity, insomnia, nervousness, easily aroused anger: also rapid pulse, increased blood pressure, low body temperature, muscle tremors, and sensitivity to sounds

ROBBERS:

- 1.) Coffee and other sources of caffeine, soft drinks
- 1.) Excessive intake of calcium or vitamin D, diuretics and oral contraceptives
- 2.) Excessive intake of protein, trans fats and highly refined foods

BENEFICIAL SOURCES: Spinach and dark leafy green vegetables, kelp and other seaweeds, brown rice and other whole grains, peanuts, nuts, tuna fish and other seafood



MANGANESE

ROLE: Manganese nourishes the brain and nervous system, also reduces seizures in epileptics. It is vital for reproduction, aids in sugar and fat metabolism and promotes digestion.

DEFICIENCY SYMPTOMS: Nervous irritability, fatigue, dizziness, ear noises, ataxia (lack of muscle coordination), impaired glucose tolerance, elevated blood cholesterol

ROBBERS:

- 1.) Diet high in refined and processed foods

BENEFICIAL SOURCES: Green and leafy green vegetables, whole grains, legumes, nuts, bananas, pineapples and egg



PHOSPHORUS

ROLE: Phosphorus is the second most abundant mineral in the body, and it occurs in a ratio balance with calcium (the most abundant). This mineral is essential for strong skeletal structure, cell division and reproduction, adequate oxygen in the brain and the assimilation of most vitamins.

DEFICIENCY SYMPTOMS: Bone pain, fatigue, irregular breathing, weight disorders

ROBBERS:

- 1.) Over use of antacids, aluminum toxicity (from deodorants and other sources)
- 2.) Sugar and refined carbohydrates

BENEFICIAL SOURCES: Seaweeds, beef liver (organic especially), fish, eggs, poultry, legumes, milk, cheese and yogurt

POTASSIUM

ROLE: Potassium is an electrolyte that transmits electrical signals from cell to cell. Along with sodium, potassium regulates the body's water balance. This mineral is necessary for a healthy heart, stable nerves, enzyme and hormone production, normal functioning of the muscles and overall energy. Potassium helps carry oxygen to the brain. It works to control allergic reactions and it balances the all-important acid/alkaline balance of the body. Potassium is a very important mineral to have in adequate supply.

DEFICIENCY SYMPTOMS: Signs of potassium loss correlate with the above functions and may include: continuous thirst, water and salt retention, dry skin, high blood pressure, slow and irregular heart beat, muscle and general weakness, weak reflexes, nervousness, insomnia, increased cholesterol, muscle damage and respiratory distress.

ROBBERS:

- 1.) Alcohol, coffee and other caffeine sources, sugar, soft drinks, highly refined and processed foods
- 2.) Excessive stress, acute mental activity, hypoglycemia and excessive diarrhea
- 3.) Over use of diuretics, laxatives, cortisone and certain antibiotics

BENEFICIAL SOURCES: Sunflower seeds, bananas, potatoes, kelp and other seaweeds; many vegetables and fruits including: yellow vegetables, spinach, broccoli, Brussel sprouts, tomatoes, apricots, peaches, dates and figs; molasses, peanuts and other legumes, seafood and red meat



SELENIUM

ROLE: Selenium is a powerful anti-oxidant, anti-cancer and immune stimulating agent. It neutralizes free radicals. Selenium works with vitamin E to limit serum fat and cholesterol accumulations in the blood. In addition selenium guards against heart weakness, enhances the elasticity of skin and body tissues (making for young-looking skin), and prevents various degenerative diseases. Its presence in food is dependent upon mineral-rich soil.

DEFICIENCY SYMPTOMS: Repeated colds and respiratory infections among other infections, poor hair and skin tone, cataracts, toxicity from mercury and other metals...Low levels of selenium can factor into cancer and other degenerative diseases.

ROBBERS:

- 1.) High levels of mercury, cadmium, arsenic and sulfates in the body

BENEFICIAL SOURCES: Brewer's yeast, sesame seeds, tuna, herring, wheat germ and whole grains



SILICON

ROLE: Silicon is responsible for the growth and health of connective tissues. It is needed for collagen production and all healing and rebuilding, especially internal.

DEFICIENCY SYMPTOMS: Difficulty healing from surgery and other situations

ROBBERS: Unknown

BENEFICIAL SOURCES: Whole grains, and the herb horsetail

SODIUM

ROLE: Sodium is an electrolyte. It helps regulate the kidneys and general body fluids; and it is essential for the movement of nutrients through the cells. Note: sodium levels affect high blood pressure only when calcium and phosphorus are deficient or imbalanced.

DEFICIENCY SYMPTOMS: Fatigue, loss of appetite, weight loss, muscle cramps, decreased resistance to infections, intestinal gas; and in severe cases, vomiting. The later may happen in hot temperatures due to excess sweating.

ROBBERS:

- 1.) Diuretics
- 2.) Lack of chlorine and potassium

BENEFICIAL SOURCES: Sea salt, seaweed, seafood, celery



SULPHUR

ROLE: Sulphur is a beauty mineral and generates: smooth skin, strong nails, shiny hair, and collagen synthesis. Adequate levels help with the aging process and keep the mind alert and functioning well.

DEFICIENCY SYMPTOMS: Skin problems, weak nails, dull and brittle hair

ROBBERS: Unknown

BENEFICIAL SOURCES: Eggs, garlic, onions, hot peppers, fish



ZINC

ROLE: Zinc is brain food. It helps control disorders such as schizophrenia and it helps promote mental alertness. Zinc is essential for strong immunity, sexual and glandular health, formation of insulin, and the synthesis of protein (for wound healing and other functions). In addition zinc helps prevent birth defects when taken by pregnant mothers.

DEFICIENCY SYMPTOMS: Decreased learning ability, poor memory, fatigue, retarded growth, eczema, delayed sexual maturity, sterility, prolonged wound healing, skin problems, high cholesterol

ROBBERS:

- 1.) Alcohol
- 2.) Excessive use of diuretics, oral contraceptives
- 3.) Lack of: phosphorus, vitamins A and D

BENEFICIAL SOURCES: Brewer's yeast, oysters, seafood, eggs, mushrooms, spinach, onions, fish, soybeans and tofu, sunflower seeds, pumpkin seeds