

Vitamins

<http://www.thealmightyguru.com/Pointless/Vitamins.html>

Vitamin A

Vitamin A helps in the formation and maintenance of healthy teeth, skeletal and soft tissue, mucous membranes, and skin. It is also known as retinol, because it generates pigments in the retina. Vitamin A promotes good vision and helps the processes of reproduction and lactation.

Sources: Milk, cheese, cream, liver, kidney, cod oil, halibut oil. All of these sources are high in saturated fat and cholesterol. However, some vegetables contain "beta carotene", and they are free from fat and cholesterol. The body can convert beta carotene to vitamin A, if it is needed. Beta carotene is present in carrots, pumpkin, sweet potatoes, winter squashes, cantaloupe, pink grapefruit, apricots, broccoli, spinach and most dark green leafy vegetables. The more intense that the colour of a vegetable is, the higher the beta carotene content is.

Vitamin A deficiency: Reduces the effectiveness of the immune system, and causes vision problems.

Vitamin A excess: Can cause abnormal fetal development. Can turn the skin to yellow or orange.

Vitamin C

Also known as "ascorbic acid", vitamin C promotes healthy teeth and gums, helps in the absorption of iron, and helps maintain strong tissue. Many people think that it can prevent colds and flu, but there isn't any scientific evidence for this.

Sources: Citrus fruits, strawberries, tomatoes, broccoli, turnips, potatoes and cantaloupe. Most other fruits and vegetables contain some vitamin C, and fish and milk contain small amounts.

Vitamin C deficiency: Loss of appetite, irritability, depression, bleeding gums, loss of teeth, wounds difficult to heal.

Vitamin C excess: Diarrhoea, possibly kidney stones.

Vitamin D

Promotes the body's absorption of calcium, which is essential for the normal development of healthy teeth and bones. It also helps maintain good levels of minerals in the blood.

Sources: Vitamin D is found in cheese, butter, margarine, cream, fortified milk (all milk in the United States is fortified with Vitamin D), fish, oysters, and fortified cereals. Vitamin D is also known as the "sunshine vitamin" because the body manufactures vitamin D after being exposed to sunshine. 15 minutes of sunshine, 3 times a week, is sufficient to produce the body's requirement of vitamin D.

Vitamin D deficiency: A vitamin D deficiency leads to soft bones, or rickets.

Vitamin D excess: This can result in elevated levels of calcium in the blood. This can lead to a reduced function of the heart and lungs.

Sources of Vitamin A



Vitamin E

Important for cell health and the immune system, and it prevents the oxidation of fat.

Sources: Vitamin E is found in wheat germ, corn, nuts, seeds, olives, spinach, asparagus, and other green leafy vegetables, vegetable oils (corn, sunflower, soya bean, and cottonseed) and margarine.

Vitamin E deficiency: May cause Haemolytic Anaemia (death of red blood cells).

Vitamin E excess: Interferes with Vitamin K production and therefore affects blood clotting time.



Vitamin K

Essential for the formation of prothrombin, a blood-clotting compound.

Sources: Vitamin K is found in cabbage, cauliflower, spinach, and other green leafy vegetables, cereals, soya beans, and other vegetables. Bacteria in the intestines also produce vitamin K.

Vitamin K deficiency: Vitamin K deficiency is very rare. It occurs when there is an inability to absorb the vitamin from the intestinal tract. It can also occur after prolonged treatment with antibiotics.

Vitamin K excess: May cause Haemolytic Anaemia and Jaundice in infants.

B vitamins

These are a class of water-soluble vitamins that play important roles in cell metabolism.

Vitamin B1 (Thiamine)

Participates in many of the chemical reactions in the body. Thiamine is important in the production of energy.

Sources: Fortified bread, cereals, pasta, whole grains (especially wheat germ), lean meats (especially pork), fish, dried beans, peas, and soya beans. Dairy products, fruits and vegetables contain a little thiamine.

Vitamin B1 deficiency: A deficiency of thiamine can cause weakness, fatigue, psychosis, and nerve damage. Thiamine deficiency is most commonly seen in alcoholics. A total absence of thiamine can cause the disease called beriberi, which these days is very rare.

Vitamin B1 excess: Thiamine is easily processed by the kidneys, and there is no evidence of thiamine toxicity.

Vitamin B2 (Riboflavin)

Important for body growth and red cell production. It helps to release energy from carbohydrates.

Sources: Lean meats, eggs, vegetables, nuts, green leafy vegetables and dairy products provide riboflavin. Bread and cereals are often fortified with riboflavin. Because riboflavin is destroyed by exposure to light, foods with riboflavin should be protected from light.

Vitamin B2 deficiency: Deficiency of riboflavin is not common because this vitamin is plentiful in the food supply. Deficiency symptoms include dry and cracked skin and eyes that are sensitive to bright light.

Vitamin B2 excess: There is no known toxicity to riboflavin. Excess amounts are excreted in the urine. However, it may interfere with anticancer medication.

Vitamin B3 (Niacin)

Aids in metabolism. Maintains the nervous and digestive systems in good condition. Can reduce blood cholesterol.

Sources: Dairy products, poultry, fish, lean meats, nuts, eggs, vegetables, fortified bread and cereals.

Vitamin B3 deficiency: Pellagra, which is a condition characterized by inflammation of the skin, diarrhoea, dementia, irritability, loss of appetite, weakness and dizziness.

Vitamin B3 excess: Low blood pressure, liver damage, ulcers.

Vitamin B5 (Biotin/Pantothenic Acid)

Essential for the metabolism and the synthesis of hormones and cholesterol.

Sources: Eggs, fish, milk products, whole-grain cereals, vegetables, yeast, broccoli, potatoes, beef.

Vitamin B5 deficiency: Retarded growth, infertility, fatigue, irritability.

Vitamin B5 excess: Diarrhoea and water retention.

Vitamin B6 (Pyridoxine)

The more protein that you eat, the more B6 is required to use the protein. It helps in the formation of red blood cells and in the maintenance of normal brain function. It also assists in the synthesis of antibodies in the immune system.

Sources: Beans, nuts, vegetables, eggs, meats, fish, whole grains, and fortified bread and cereals.

Vitamin B6 deficiency: Anaemia, epileptiform convulsions, dermatitis (inflammation of the skin)

Vitamin B6 excess: Can cause neurological disorders and numbness.

Vitamin B9 (Folate)

Important in the synthesis of DNA and acts together with vitamin B12 in the formation of red blood cells. Folate requirements are increased during pregnancy. Folate is sensitive to heat, oxygen and light, consequently it can be lost in cooking water.

Sources: Green leafy vegetables, organs, meat, poultry, seafood, dried beans, seeds, whole grain bread and cereals.

Vitamin B9 deficiency: Pernicious anaemia, depression.

Vitamin B9 excess: Excess folate is excreted easily by the body, but it can hide symptoms of vitamin B12 deficiency.

Vitamin B12 (known as many different names)

Like the other B vitamins, B12 is important for metabolism. It helps in the formation of red blood cells and in the maintenance of the central nervous system. Vitamin B12 is sensitive to ultraviolet light.

Sources: Eggs, meat, poultry, shellfish, milk products.

Vitamin B12 deficiency: Pernicious anaemia, degeneration of peripheral nerves which can result in paralysis.

Vitamin B12 excess: There is no evidence of vitamin B12 toxicity.