

## \* **Over Nutrition**

Prolonged consumption of more nutrients than the body needs can lead to over nutrition. In the short run, over nutrition may cause no sign or symptoms. But keep it up, over nutrition may cause no signs and symptoms. But keep it up and some nutrients may increase to toxic amounts, which can lead to serious disease. Iron overload, for example, can result in liver failure, and too much vitamin A can have negative effects, particularly in children. The most common type of over nutrition – excess intake of energy-yielding nutrients—is a principal cause of obesity. In the long run, an overweight condition can lead to serious diseases, such as certain forms of diabetes and cancer.

Over nutrition is a type of malnutrition in which nutrients are oversupplied relative to the amounts required for normal growth, development, and metabolism. It's a type of malnutrition where there are more nutrients than is required for normal growth. Over nutrition, which is an excessive intake of nutrients, is another form of malnutrition. Over nutrition often results from the use of self-prescribed over-the-counter vitamin and mineral supplements. Over nutrition is associated also with eating too much food and hence having an excessive intake of many nutrients rather than of a single one. Over nutrition is an unhealthy condition in which one or more nutrients such as vitamins or minerals is oversupplied in the body. It also refers to an intake of calories beyond what the body needs for energy requirements. Basically, over nutrition is somewhat of a fancy word for the health condition that results from taking in too many calories and/or getting more of a nutrient than is needed for normal growth, development, and metabolism. Prolonged consumption of more nutrients than the body needs can lead to over nutrition. In the short run, over nutrition may cause no sign or symptoms. But keep it up, over nutrition may cause no signs and symptoms. But keep it up and some nutrients may increase to toxic amounts, which can lead to serious disease. Iron overload, for example, can result in liver failure, and too much vitamin A can have negative effects, particularly in children. The most common type of over nutrition - excess intake of energy-yielding nutrients—is a principal cause of obesity. In the long run, an overweight condition can lead to serious diseases, such as certain forms of diabetes and cancer.

For most vitamins and minerals, the gap between desirable intake and **over nutrition** is wide. Therefore, even if people take a typical multivitamin and mineral supplement daily, they probably won't receive a harmful amount of any nutrient. The gap between optional intake and over nutrition is narrowest for vitamin A and vitamin D, as well as calcium, iron, copper and other minerals. In very high doses, vitamin B-6 and the vitamin Niacin can cause health problems. At the beginning of the 20<sup>th</sup> century, under nutrition was the main concern of nutrition scientists. Today, the major nutritional problems in the US and in most developed countries are the result of over nutrition, principally caused by excess intake of energy, saturated and total fat, and sodium. Some people are especially susceptible to ill health when they health when they consume too much saturated fat and sodium. Because of the increasing use of vitamin and mineral supplements in recent years, many forms of vitamin and mineral over nutrition has now become a concern.

For most vitamins and minerals, the gap between desirable intake and **over nutrition** is wide. Therefore, even if people take a typical multivitamin and mineral supplement daily, they probably won't receive a harmful amount of any nutrient. The gap between optimal intake and over nutrition is narrowest for vitamin A and vitamin D, as well as calcium, iron, copper and other minerals. In very high doses, vitamin B-

6 and the vitamin Niacin can cause health problems. At the beginning of the 20<sup>th</sup> century, under nutrition was the main concern of nutrition scientists. Today, the major nutritional problems in the US and in most developed countries are the result of over nutrition, principally caused by excess intake of energy, saturated and total fat, and sodium. Some people are especially susceptible to ill health when they health when they consume too much saturated fat and sodium. Because of the increasing use of vitamin and mineral supplements in recent years, many forms of vitamin and mineral over nutrition has now become a concern. According to the World Food Programme and the M.S.Swaminathan Reserch Foundation (MSSRF), over the past decade there has been a decrease in stunting among children in rural India, but inadequate calorie intake and chronic energy deficiency levels remain steady. Under nutrition is known to have a negative effect not only on the physical dimensions of the body resulting in stunted stature and low weight, arm circumstanes, etc, but its adverse influence is also evident in various biochemical and physiological functions of the body including the structure and function of the brain. Nutritional deprivation during intrauterine life in human beings is reported to be associated with reduced spontaneous activity, altered reflexes and altered sleep patterns in the new born which even extend over the period of infancy. Follow-up studies of such infants in developing countries to determine the long-term impacts of these changes are few and the results inconsistent and conflicting. Various studies in developed countries however, have shown that there is a deficit in mental performance associated with low birth weight. Being raised in an upper socio-economic environment seemed to compensate for deficit in mental performance. Although childhood malnutrition has been found to be associated with smaller head circumstanes and altered brain biochemistry, the functional significance of these changes is not clearly understood. Results of tests of intellectual ability administered to malnourished children did show that severe energy-protein inadequacy experienced during early childhood can lead to irreversible impairment of mental function in later life.

If an individual's intake of calories is excessive over a period of time, obesity results. Yes, obesity is considered one of the many results of over nutrition even when an obese person is deficient in one or more nutrients. Other signs and symptoms of this unfavourable health condition depend on the specific nutrient/s that is oversupplied to the body. For example, taking nutritional supplements can easily lead to vitamin poisoning and iron poisoning, especially if the supplement contains the mineral iron. Synthetic nutritional supplements generally should be avoided unless for some reason taking them are the only means of correcting a severe deficiency.

An oversupply of vitamin A can lead to hair loss. Too much vitamin B6 can cause problems with the nervous system. Difficulty walking, tingling sensations in the hands and numbness in the feet are some of the symptoms that might be experienced before more serious health problems develop. Toxic levels of vitamin E interfere with the body's ability to clot blood. Many cases of vitamin poisoning occur when a person takes multi-vitamin, multi-mineral supplements plus extra amounts of another nutrient. People convinced that taking B vitamins to help them deal with stress might make the mistake of taking excessive of synthetic nutrients that eventually lead to vitamin poisoning. The same might happen among people who are convinced that they need iron supplements to prevent to keep anemia at bay. Iron poisoning is a real risk among such a group. While completely all natural nutritional supplements are sometimes medically necessary, reliance on pills, liquids, and powders for nutrition

generally is a bad idea. Man was made to get all of his nutrition from organically grown heirloom foods, not substances produced in a laboratory.

Over nutrition that results in obesity can be controlled simply by exercising control in one's diet. This is true whether there's the need to eat less or the need to switch to eating wholesome foods. Whole foods are almost always much lower in calories and higher in nutrients. When there's genuine need to increase one's intake of nutrients, usually it is much better to include natural foods high in the specific nutrient/s needed rather than resort to taking nutritional supplements. For example, blackstrap molasses continues to make a huge comeback as an all natural source of vitamins and minerals, including iron. Iron poisoning from taking blackstrap molasses is virtually unknown. Vitamin poisoning from ingesting all natural foods is also virtually unknown. Kelp, which is available as a powder or as granules, is another all natural way of including minerals in the diet. Some people find kelp repulsive due to its fishy smell; but, the powder can always be put into gelatin capsules and taken with a meal. These are just a few of the healthy alternatives to taking nutritional supplements that can be adopted to avoid over nutrition.

Both over nutrition and under nutrition affect energy metabolism, with over nutrition raising energy expenditure and under nutrition lowering it. Fever is a powerful stimulator of thermogenesis. In diseases such as cancer, AIDS, diabetes mellitus, and rheumatoid arthritis, whether energy expenditure is increased or decreased often depends on how advanced the disorder is. Early on, when the greater protein turnover characteristic of these conditions is paramount, energy expenditure is increased. In addition, in diseases such as cancer, AIDS, and rheumatoid arthritis in which cytokines are released, the cytokines' thermogenic effect initially increases the metabolic rate. However, as the disease becomes more advanced and leads to cachexia, energy expenditure drops below normal. Acute conditions such as burns and trauma significantly raise energy expenditure, primarily by increasing sympathetic response and the release of catecholamines, which are powerful stimulators of energy expenditure.