

VITAMINS



If you are constantly under stress, grabbing hit-or-miss meals and not exercising regularly, you may feel you need vitamin supplements. This need may be heightened by the constant indoctrination of vitamin manufacturers who tend to promote their products for economic rather than health reasons. But what are vitamins, and are supplements really necessary ?

Vitamins are metabolic catalysts that regulate the biochemical reactions within your body. The body cannot manufacture the chemical substances known as vitamins. To date, scientists have discovered 13 vitamins, each with a specific function. For example, Vitamin B1 helps convert glucose into energy while Vitamin D controls the way your body uses calcium in bones.

If you have a vitamin deficiency, it may cause impaired performance and a supplement can correct that problem. Sometimes poor eating habits are responsible for your vitamin deficiency. A hearty eater who generally enjoys a balanced diet with occasional binges can rest assured that a nutritional

deficiency will not develop overnight. You can survive in spite of deprivation of every vitamin every day because you store vitamins in your body -- some in stockpiles that can last a year. The average, healthy person, for instance, has enough Vitamin C stored in the liver to last six weeks. Hence, a weekend without orange juice will not result in a nutritionally unsound body. Fat-soluble vitamins (A, D, E, K) which accumulate in body tissues, have as a rule, large reserves. Therefore if you eat regularly and adequately, you're more likely to become deficient in water-soluble vitamins (B-complex, C) which are excreted in urine.

But how much vitamins does one really need ? The Recommended Daily Allowances (RDAs), first developed by the Americans in 1943 during the second World War are broad guidelines for planning and procuring food supplies for the troops as well as standards for good nutrition. They include a large (about 30 percent) margin of safety to account for individual differences and to cover the nutritional needs of 98 percent of all healthy Americans, including those with higher-than-average needs. For example, while the RDA for Vitamin C is 60 milligrams, the amount in a six-ounce glass of orange juice, the minimum daily requirement is only 30 milligrams. It is on this basis that the RDAs may have to be revised soon.

Regardless of the government's rules, regulations and RDAs, you as an individual, are responsible for nourishing your body with a variety of wholesome foods. According to current thinking, if you exercise regularly, burn off calories and replace them with at least 1,500 calories daily from a variety of nourishing foods. You'll get

the vitamins you need. However, if you are one with a limited food intake, you may risk marginal vitamin deficiencies. For you, a standard multi-vitamin and mineral supplement might be a wise idea. Take the supplement in moderation and consider them an 'insurance policy'; not an alternative to wholesome food choices.

While sufficient amounts of vitamins is needed for the body to function optimally, an excess of vitamins offers no competitive edge. No scientific evidence exists to prove that extra vitamins enhance performance. Despite commercial claims to the contrary, supplements will not increase strength or endurance, prevent injuries or illness, provide energy or build muscle. On the contrary, an overdose of some of the vitamins, especially of the fat-soluble Vitamins A and D, may cause severe bodily harm. The body cannot eliminate excess Vitamin A quickly and this can cause damage to the bones, skin, liver and various other organs. An overdose of Vitamin D may lead to increased calcium deposits in the large blood vessels, the heart, kidneys, lungs and other organs. An excess intake of the vitamins of the B-complex and Vitamin C has fortunately, little effect on the body because these vitamins are soluble in water and can easily be expelled from the body through the kidneys. This is a blessing for the ardent followers of some quacks and food fad advocates who never tire of advising us to take an additional supply of the Vitamin C in our daily diet. Whatever your choice, you must recognize and take responsibility for the needs of your body.

Answer the following questions using complete sentences.

1. What are vitamins and what do they do ?
2. What is the recommended way of meeting our nutritional needs ?
3. How long can the average, healthy person go without Vitamin C and not suffer any health problem ?
4. Name one way Vitamin K is different from Vitamin C.
5. What was the original purpose of developing the RDA ?
6. Why is it necessary to revise the RDA ?
7. Who are those who may need a multi-vitamin supplement ?
8. Vitamins cannot replace wholesome food choices. Explain.
9. What claims do manufacturers sometimes make to improve sale ?
10. Why does an overdose of Vitamin B-complex do little or no harm to the body ?