Vitamin C Your Immune Protector

Vitamin C as compared to other vitamins is unique in two aspects:

- Vitamin C is required in much greater amounts: Whereas for most vitamins the RDA is no more than 1-10 mg/day, the RDA for vitamin C for a "normal" person is 60-90mg/day. For specific groups like smokers it is up to 120mg/day.
- Human beings are unable to synthesize vitamin C and have to obtain all of their relatively large requirements from the diet.

It is known from clinical data that deficiencies in essential nutrients like vitamin C have negative consequences on the body. Depending on the type of micronutrient being deficient, different body functions are affected. As an example, certain deficiencies can lead to physical fatigue and others to a reduced resistance against stress. Vitamin C lack negatively affects body's immunity.

In general, deficiencies can be divided in two main stages. In a preliminary stage, the tissue reserves start to decline. As a consequence, first biochemical effects like reduced enzyme activities appear. This can finally lead to a disturbance of cellular metabolic activity and provoke first physiological signs and symptoms. As long as the deficiency is marginal, these symptoms are unspecific, such as a lack of well-being.

When the tissues reserves are depleted to below a critical level, defined and specific symptoms appear as the sign of a frank deficiency stage. Today, in most societies deficiencies leading to specific, clinical symptoms are rare. Much more frequent are latent, marginal deficiencies with unspecific, non-clinical symptoms

From observational studies on vitamin C deficient persons it is known that vitamin C is essential for proper wound healing, for the efficient functioning of the immune system and consequently for protection against infectious disease.

Because body stores of vitamin C are used up rapidly, it is important to ensure a regular intake. The best food sources are fruits and



vegetables. But for many people a well-balanced diet is difficult to achieve, and the daily consumption of fresh fruits and vegetables is therefore often too low. In addition, major losses of the vitamin occur during storage, preparation and cooking, so it is difficult to know how much of it actually reaches the plate.

Natural defenses can only work effectively when they have enough vitamin C so that protective cells can respond to attacks and function in an optimal way. Some of these cells take up extra vitamin C when they come into contact with viruses or bacteria. Therefore it can be said that vitamin C is important for the so-called cellular immunity.

The body also needs vitamin C because of its antioxidant properties. Vitamin C helps to protect cells from free radical damage. Vitamin C achieves much of its protective effect by functioning as an antioxidant and preventing oxygen-based damage to our cells.

Vitamin C is needed to produce collagen. Collagen gives structure and strength to the skin and other body surfaces that form the mechanical barrier.