

## What's scurvy?

### What

Serious ascorbic acid (Vitamin C) deficiency in our diet causes scurvy.

Our body needs about 60-90% per day of Vitamin C, and since our organism cannot synthesize it, we need a daily intake through eating fruits and vegetables.

### How

Cachexy (serious weight loss) and haemorrhages characterized scurvy disease. The signs of scurvy may include: extreme weakness, depression, gums swelling and bleeding, eventually leading to loosened teeth, painful swelling of the legs, sub-periosteal haemorrhages.

### When

Incubation period for Scurvy: from 3 to 12 months in adults and infant from 6 to 12 months.

### Who

Scurvy was very common among sailors, out to sea longer than perishable fresh fruits and vegetables could store.

Today, junk food eater are frequently subjected to this disease, due to the low amount of vitamin C of that kind of meal.

Alcoholics, old people and smokers are subjected to this disease. Just think that we need a 50-60 mg daily intake of Vitamin C and only a cigarette can burns up to 25 mg!

### Where

Excellent sources of Vitamin C are fruits and fresh vegetables, in particularly: lemons, oranges, kiwi, strawberries, blackcurrant, mandarin, melon, cabbage, broccoli, peas, spinaches, cauliflower, parsley.

### Scurvy history

1150 b. C.: first description of scurvy disease in the Papyrus Ebers

1499 a. C: Vasco da Gama returned to Portugal, successfully finding the sea-route to India circumnavigating Africa, with only a third of the 170 men crew, drastically killed by scurvy.

1741 a. C: Vitus Bering, the Danish navigator who discovered the famous strait that bears his name, the Bering Strait died of scurvy.

1750 a. C: James Lind, ship's surgeon in the British Royal Navy, published the Treatise on the Scurvy, describing the disease as resulting from a dietary deficiency of vegetables and fruits which, in order to prevent it, should be eaten regularly.

1753 a. C: Francis Glisson gave the first description of the infantile scurvy

1759 a.C: British Navy adopted lemon or lime juice as standard issue at sea.

1921 a.C: The anti-scurvy compound was called Vitamin C. From 1928 to 1933, the Hungarian research team of Joseph L Svirbely and Albert Szent-Györgyi and, independently, the American Charles Glen King, first isolated vitamin C and showed it to be ascorbic acid.

1934 a.C: Sir Walter Norman and Tadeus Reichstein, autonomously, succeeded in synthesizing Vitamin C.

1937 a.C: After synthesizing Vitamin C, Sir Walter Norman received the Nobel Prize in Chemistry. This accomplishment not only constituted a valuable addition to knowledge of organic chemistry but also made possible the cheap mass production of Vitamin C for medical purposes (i.e. 3 gr. of ascorbic acid give the equivalent amount of Vitamin C as 22 Kg of potatoes).

1955 a.C: J.J. Burns showed that the reason why some mammals were susceptible to scurvy was due to the inability of their livers to produce the active enzyme L-gulonolactone oxidase (GLO).

Thus instead of being a simple dietary disturbance, due to the lack of vitamin C in foods, the basic cause of our susceptibility to scurvy is the much more serious potentially-fatal inherited presence of a defective gene for GLO in the human gene pool. This enzyme is the last of the chain of four enzymes which synthesise ascorbic acid, converting blood sugar, glucose, into ascorbate in the mammalian liver.