Vitamin B3

Niacin (vitamin B_3) is the name for nicotinamide and nicotinic acid. It is part of enzymes, oxido-reduction systems (nicotinamide adenine dinucleotide -NAD, nicotinamide adenine diphosphate -NADP). May form in the liver from tryptophan and its biosynthesis is very slow and it is needed vitamin B_6.

Source

File:Nicotinic-acid.svg
Vitamin B3 structure

The source of most foods - meat, fish, cereals. The recommended daily dose for adults is by age and sex of 13-17 mg

Deficit

Pellagra

Disease pellagra is caused by the current lack of niacin and its precursor tryptophan. Today it has rarely occurs in a very poor population groups or for refugees in developing countries. Occurs in people who eat mostly corn/maize. The symptoms are as a mnemonic device used sometimes called "disease of three D" - dermatitis, diarrhea, dementia.

Surplus

Signs of excess food are not known. High doses of dietary supplements induce vasodilatation, warmth, gastritis, damage to liver cells.Income should not exceed 35 mg / kg / day.

Pharmacological use

Nicotinic acid (niacin) and its derivatives are used to treat hyperlipidemia by inhibiting the secretion of VLDL from the liver and increasing the activity of peripheral lipoprotein lipase. This leads to a reduction in circulating VLDL (ie, TAG) and, consequently, LDL(cholesterol).In contrast adipose tissue blocking the intracellular lipase , thus releasing the MK inventory, further reducing supply to the liver TAG and reduces VLDL synthesis.

- Adverse effects:harmless vasodilation (mediated release of prostaglandins) in the skin associated with subjective stream feeling hot - it can handle submitting aspirin; at 1 / 5 of patients treated with hyperuricemia; skin rash.

Links

Related articles

- Fat Soluble Vitamins
- Water Soluble Vitamins

Bibliography

- BENCKO, Vladimir, et al. *Hygiene and epidemiology : selected chapters.* 2. edition. Prague. 2008. ISBN 80-246-0793-X.