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Тема: «Vitamins»

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Vitamins

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Classification of vitamins:

1. Water-soluble (vitamin C, vitamin of group B and vitamin PP);
2. Fat-soluble (vitamin A, vitamin D, and vitamin E);
3. Vitamin like substances (vitamin E, lime acid, vitamin U)

Vitamin C

Overdose:

oxalate kidney stones.

Function:

Antioxidant No. 1, anti-cancer, participates in the formation of collagen, strengthens the immune system, helps the body absorb iron.

Ascorbic acid, vitamin C, antioxidant, antiscorbutic vitamin

Vitamin C is essential for collagen formation and connective tissue: binds blood vessels, bone tissue, skin, tendons, teeth. Vitamin C affects the exchange of many substances. Using ascorbic acid the body can easily cope with many toxins and poisons.



Vitamin B1

Thiamin

Vitamin B1 vitamin called antisermitism that characterizes its primary action on the body.

Thiamine can not accumulate in the body, so necessary that he did in the body on a daily basis.



Function:

Carbohydrate metabolism, protein metabolism, the nervous system, the catalyst in the formation of gastric juice.

Vitamin B1 is necessary for normal functioning of every cell in the body, especially to nerve cells. It stimulates the brain, necessary for the cardiovascular and endocrine systems.

Vitamin B2

Vitamin B2 (Riboflavin) takes an active part in the formation of some hormones and red blood cells, synthesis of ATP (adenosine triphosphate - "the fuel of life") protects the retina from excess exposure to UV rays, ensure adaptation to darkness, increases visual acuity and perception of color and light.



With a lack of weakness, decreased appetite, inflammation mucous membranes, violation visual functions

Functions: Regulates metabolism, involved in hematopoiesis, reduces eye fatigue and facilitates the absorption of oxygen by cells.

Vitamin B5

Function

Regulates the adrenal glands, the absorption of vitamins, the synthesis of antibodies, fat metabolism



With a lack of weakness and fatigue; abdominal pain; loss of appetite; irritability, nervousness and depression; heart palpitations; eczema; insomnia; nausea and vomiting

Vitamin B5

regulates the motor function of the intestines and nervous system function, reduces the harmful effects of antibiotics, supports the immune system, accelerates healing of wounds.

Vitamin B12

The main function of vitamin B12 is the maintenance of normal hematopoiesis.

Functions:
production of amino acids and fatty acids.



Lack of: anemia, degeneration of the mucosa of the intestine, neuralgia.

Vitamin PP

The main representatives of Niacin are nicotinic acid and nicotinamide. In animal products contains Niacin in the form of nicotinamide, and vegetable - in the form of nicotinic acid.

Signs of excess

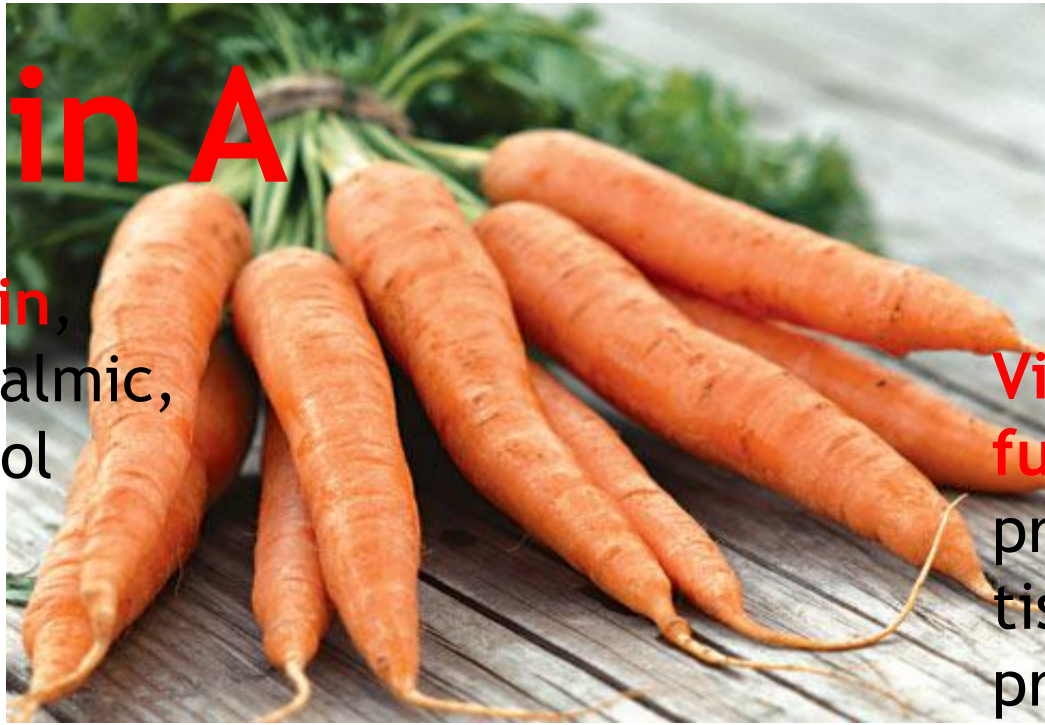
- skin rash
- itching
- fainting



The shortage of

- lethargy, apathy, fatigue
- dizziness, headache
- irritability
- insomnia
- loss of appetite, decline of body weight

Vitamin A



Anti-infective vitamin,
vitamin antixerophthalmic,
retinol, dehydroretinol

Function:

eyesight improvement,
restore skin, strengthen
hair, regenerate cells.

Overdose:

Headache, toxic
to the liver, hair
thins, skin peeling.

**Vitamin a performs many
functions in the body:**

promotes growth and
tissue regeneration,
provides elasticity to the
skin and hair, improves
immunity, strengthens the
body's resistance to
infections.

Vitamin D

Vitamin D is essential for normal formation and growth of bones. It regulates the exchange of calcium and phosphorus. Vitamin D contributes to normal heart function, blood clotting.



The deficiency symptoms are: the rickets, low muscle tone

Function: the division of cells in the lymph, the absorption of calcium and phosphorus in the bones.

Overdose: Hypercalcemia, accumulation of calcium in the kidneys, heart, blood vessels and joints.

Vitamin E

Vitamin E is the main representative of a group of antioxidants. It has a rejuvenating effect, slowing the aging of cells caused by the damaging effects of free radicals on the cells of the body.



No overdose

The deficiency symptoms are:
Violations of the blood in children, early childbirth, anemia, swelling.

Function:
Together with antioxidant, thins the blood, strengthens the immune system.

Vitamin U

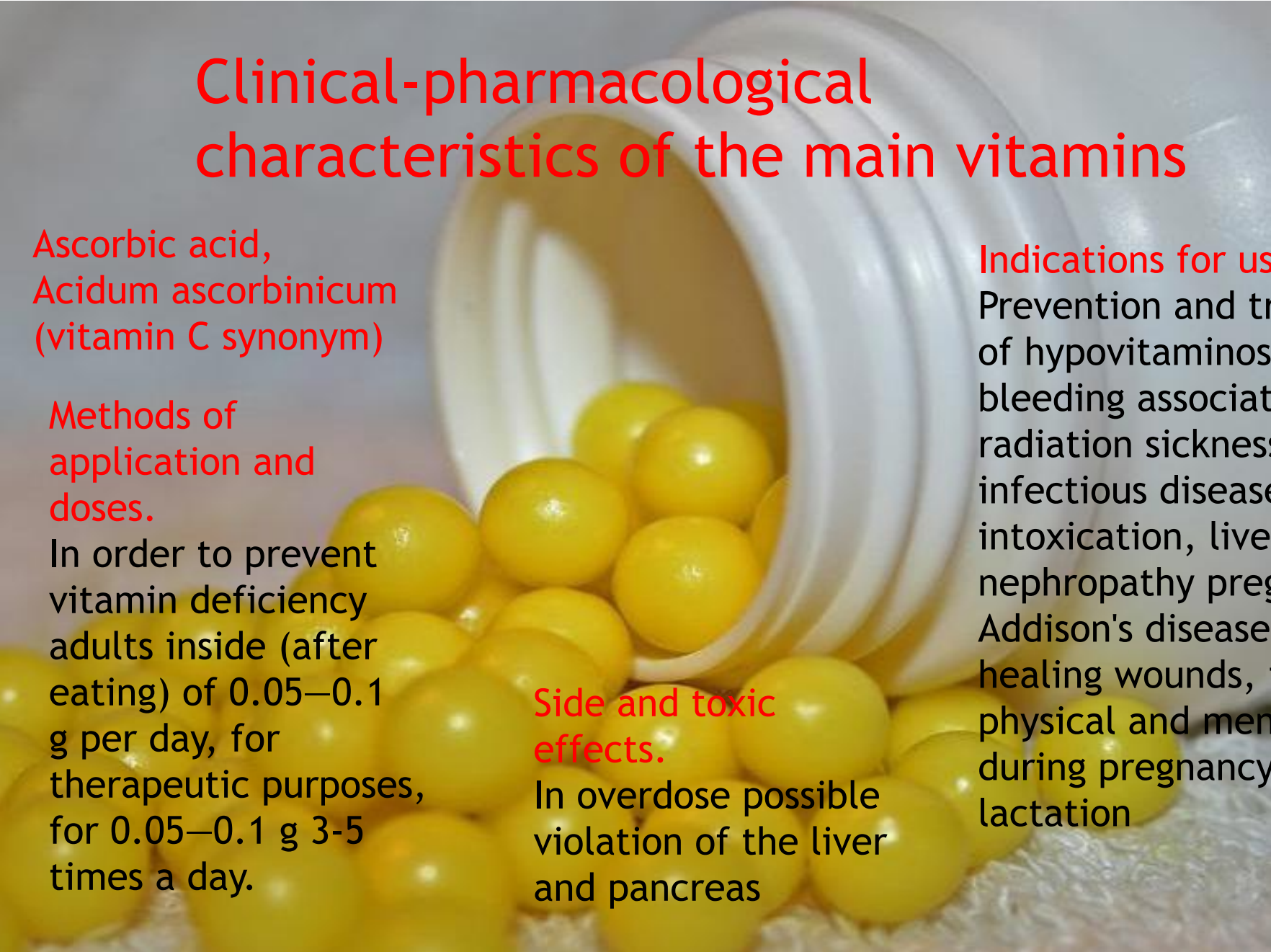
Vitamin U has antihistaminic and anti-atherosclerotic properties. Participates in the methylation of histamine, which leads to normalization of acidity of gastric juice.



Vitamin U is currently excluded from the group of vitamin-like substances.

vitamin U is very unstable when heated. In the process of cooking cabbage is destroyed after 10 min of 3-4%, after 30 min - 11-13%, 60 min - 61-65%, 90 min - 100% of this substance. And in frozen and canned products, it is well maintained.

Clinical-pharmacological characteristics of the main vitamins



Ascorbic acid,
Acidum ascorbinicum
(vitamin C synonym)

Methods of
application and
doses.

In order to prevent
vitamin deficiency
adults inside (after
eating) of 0.05–0.1
g per day, for
therapeutic purposes,
for 0.05–0.1 g 3-5
times a day.

Side and toxic
effects.

In overdose possible
violation of the liver
and pancreas

Indications for use.

Prevention and treatment
of hypovitaminosis,
bleeding associated with
radiation sickness,
infectious diseases and
intoxication, liver disease,
nephropathy pregnant,
Addison's disease, sluggish
healing wounds, increased
physical and mental stress,
during pregnancy and
lactation

Benfotiamine, Benphothiaminum

The basic properties.

Synthetic analog of
thiamine;
corresponds in
properties, but is
superior in activity



Methods of application and doses.

Inside (after eating) for adults
0.025–0.05 g 1-4 times a day.
Daily dose for adults 0.1–0.2 g,
treatment course – 15-30 days.
Persons of elderly and senile
age – 0.025 g 1-2 times a day;
children from 1 year to 10
years – 0.01–0.03 g / day
(course of treatment is 10-20
days), children older than 10
years – and 0.03–0.06 g per
day (treatment course – 15-30
days)

Calcium pangamat, Calcii pangamas (synonym: vitamin B15, Culham)

The basic properties.

Regulates lipid metabolism, improves the absorption of oxygen by tissues, increases the content of creatine phosphate and glycogen in the muscles and liver, eliminates the effects of hypoxia



Methods of application and doses.

Inside adult for 0.05–0.1 g 3-4 times a day. Daily dose for adults 0,1–0,3 g, for children up to 3 years – 0.05 g, from 3 to 7 years – 0.1 g, 7 to 14 years – 0.15 g. the Course of treatment is 20-40 days.

Side and toxic effects. Repeated courses in 2-3 months.

With a significant increase in blood pressure, the drug is prescribed with caution

Thank you for your attention!

