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WORMS (HELMINTHIASIS) — TYPES, SYMPTOMS, COMPLICATIONS,  
TREATMENT, PREVENTION

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**Annotation:** Helminthiasis is a disease caused by various types of worms (helminths) that enter the human body as parasites. The main types of the disease are nematodes (roundworms), trematodes (flatworms), and cestodes (tapeworms). Symptoms of helminthiasis vary depending on the degree of damage to the body and the type and location of the parasite; among them are gastrointestinal problems, allergic reactions, fatigue, weight loss, anemia. If not treated in time, the disease can lead to serious complications, such as inflammation of internal organs, blood poisoning, or even death. Antiparasitic drugs are used for treatment, and it is also important to observe personal hygiene rules, properly prepare water and food products to prevent the disease.

**Keywords:** helminthiasis, worms, parasites, nematodes, trematodes, cestodes, symptoms, complications, treatment, prevention.

Helminths or worms are representatives of the family of parasitic worms, which usually live in the human body and disrupt its normal functioning (helminthiasis). Currently, about 400 species of helminths are known.

Depending on the location of the parasites in the affected organ, the following types are distinguished:

luminal helminths - live in the intestinal tract (ascariasis, enterobiasis, trichocephalosis);

hepatobiliary helminths - live in the gallbladder and liver;

pulmonary helminths - live in the lungs (paragonimiasis, toxocariasis);

tissue helminths - live in the muscles and brain (trichinellosis, schistosomiasis);

ophthalmohelminths - live in the eyes (filariasis).

The most common of these diseases are enterobiasis, trichocephalosis and ascariasis.

Worms can enter the human body through the ingestion of parasite eggs. Parasite eggs can enter the human body when touching dirty objects, biting nails, eating poorly washed fruits and vegetables or undercooked meat and fish products, and worms can also be transmitted from pets.

Parasites are divided into two categories depending on the area of the donor's body where they are active:

Gastrointestinal - worms that live in different parts of the gastrointestinal tract. There are about 100 species of intestinal parasites (dozens for each part of the intestine). Ascaris, tapeworms, tapeworms and their other "relatives" live in the small intestine. Cases



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of simultaneous infection of a person with different types of parasites are also described in the medical literature.

Tissue - the parasite can settle in internal organs, tissues and even in the blood. Modern medicine has been successfully fighting paragonimiasis (lungs), cysticercosis (brain), echinococcosis (liver) and filariasis (lymphatic vessels). Some worms can move throughout the body through the blood system and randomly attach to any organ. With a large number of eggs, there is a possibility of damage to the entire body.

Symptoms of the presence of helminths in the body can be different, depending on which type of parasite has entered the body. Symptoms of helminthiasis include:

- feeling unwell;
- weakness
- allergies, hives;
- fatigue, depression;
- decreased or increased appetite;
- nausea;
- vomiting;
- sharp pains in the abdominal cavity;
- grinding of teeth during sleep;
- defecation disorders (constipation and diarrhea);
- rapid weight loss;
- parasites and their parts, as well as eggs, are excreted with feces;
- itching around the anus;
- insomnia.

Since there are different types of parasites, they affect different organs, and this is not necessarily the intestines and other parts of the gastrointestinal tract. If the liver is damaged, the symptoms will be slightly different: pain under the right breast, yellowing of the skin and whites of the eyes, nausea, etc.

If you find that you have similar symptoms, consult a doctor immediately. It is easier to prevent the consequences of the disease than to eliminate it.

Diagnostics: In order to prescribe an individual treatment for each case, the pediatrician will prescribe the following examinations:

- general stool analysis;
- general blood test;
- X-ray of the intestines;
- scraping of the skin around the anus.

Treatment of the disease

Treatment of helminthiasis is carried out by several methods, including:

- antiparasitic drugs;
- sorbents;
- enzymes;
- immunity-boosting drugs;



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hepatoprotectors (drugs that improve liver function).

Dangers: If helminthiasis is treated incorrectly or not treated at all, the following complications may occur:

hepatitis;  
intestinal obstruction;  
pancreatitis;  
purulent skin ulcers;  
anemia.

In order to avoid infection with parasites and avoid future visits to the doctor, it is necessary to follow the following recommendations:

observe personal hygiene;  
wash fruits, vegetables and other foods before eating;  
sufficiently heat-treat seafood, meat and fish before eating them;  
supervise children, do not allow them to eat or put contaminated objects in their mouths.

The constant re-introduction of parasite eggs into the body does not allow the patient to be cured the first time. Such repeated courses of therapy are necessary.

It is recommended to give pumpkin seeds to children to prevent worm infestation. The cucurbitins contained in the seeds have a destructive effect on parasites. In addition, before eating, hands should be washed thoroughly, including under the nails.

Pets should be treated every 3 months. Since worm eggs can remain on door handles for up to 6 months, it is recommended to clean the children's room more often. It is necessary to be responsible for hand and body hygiene, and to carefully prepare food for consumption.

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