

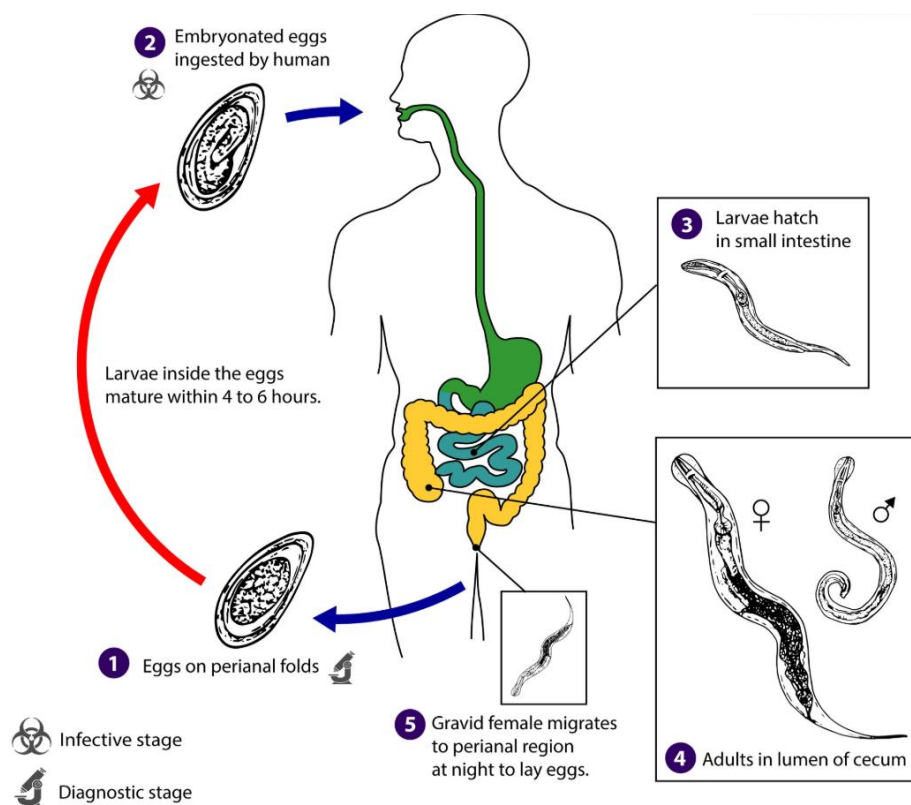
PINWORMS – INFORMATION FOR PARENTS

WHAT ARE PINWORMS?

Pinworms (*Enterobius vermicularis*) are small, whitish worms about one centimetre long that live in the human digestive tract. Among roundworms, they are the most common cause of infection, particularly among school-aged children.

The most common symptoms of an infestation is severe itching around the anus, especially at night. The itching occurs because the fertilized female lays her eggs in the skin folds around the anus.

A person becomes infected when they ingest pinworm eggs. When a person with pinworms scratches their anus, the eggs get under their fingernails, on their hands, in their underwear, and on their bedding. From there, they are transferred to food, other objects, and furniture. Eggs are also found in house dust and are carried on the fur of pets, though pets themselves do not become infected. Outside the host, eggs remain infectious for up to three weeks. They thrive particularly well in humid environments. High temperatures destroy them (above 55 °C).



Source: https://www.cdc.gov/dpdx/enterobiasis/modules/Enterobius_LifeCycl_Ig.jpg.

WHAT ARE THE SYMPTOMS AND SIGNS OF THE INFECTION?

Approximately one-third of those infected, show signs of infection. In people who do have symptoms, the most common sign of infection is severe itching around the anus especially at night, which can lead to restless sleep. Some may also experience abdominal pain, nausea, and vomiting.

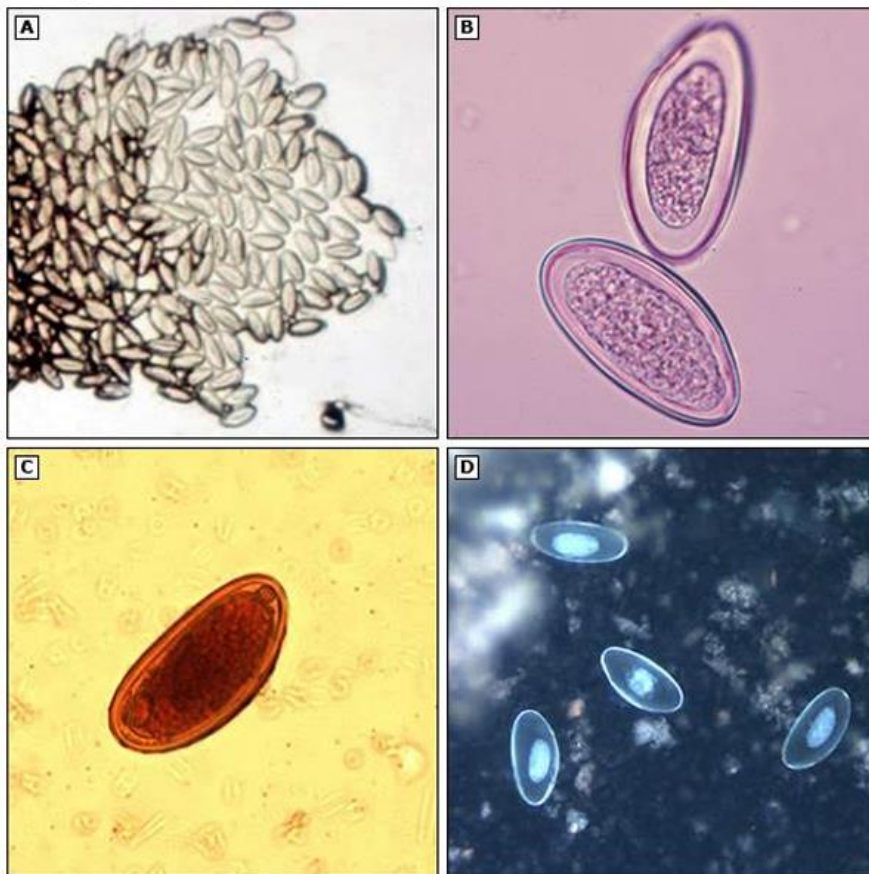
SHOULD I VISIT A DOCTOR?

If you experience severe itching around the anus, especially at night, we recommend that you see a doctor.

HOW DO WE CONFIRM THAT WE HAVE A PINWORM?

Adult pinworms (8–13 mm long, white) can be seen with the naked eye around the anus. Infection is confirmed in a laboratory by examining the eggs under a microscope.

Using adhesive tape (scotch tape), take a swab of the skin folds around the anus. Then attach the tape to a clean glass slide and take it to the laboratory, where the eggs will be identified under a microscope. Take the sample at night or first thing in the morning, before urinating, defecating, or washing.



(A) Eggs of *E. vermicularis* in an adhesive-tape preparation.

(B) Eggs of *E. vermicularis* in a wet mount.

(C) Egg of *E. vermicularis* in an iodine-stained wet mount from a formalin concentrate.

(D) Eggs of *E. vermicularis* viewed under UV microscopy.

SOURCE: <https://www.cdc.gov/dpdx/enterobiasis/index.html>.

HOW TO TREAT PINWORMS?

The infection is treated with antimicrobial drugs that target pinworms. Two equivalent drugs are available in Slovenia: mebendazole and albendazole. One of these drugs is prescribed by a doctor on a “green” prescription; mebendazole and albendazole are not available over the counter.

Children over one year of age and adults should take one tablet of mebendazole (Vermox®).

Children over two years of age and adults should take one tablet containing 400 mg of albendazole (Zentel®). Children aged one to two years require a half dose of albendazole (200 mg, or half a tablet).

After 14 days, **we repeat the treatment** using the same dose and duration as the first time to reduce the risk of reinfection.

Despite treatment, reinfection with pinworm is possible. The source of infection is often family members who have pinworm but show no symptoms.

For this reason, it is important that all family members over the age of one take the medication at the same time. The dosing regimen is the same as for the patient – a single dose of mebendazole or albendazole, repeated after 14 days. The doctor treating the patient prescribes the medication for family members.

Mebendazole and albendazole are not suitable for treating children under one year of age. Mebendazole may have harmful effects on pregnancy and/or the foetus. Mebendazole is contraindicated during the first trimester of pregnancy; thereafter, risks cannot be ruled out. Pregnant women should take medication only if the benefit to the mother outweighs the risk for the baby. Breastfeeding mothers should not take mebendazole.*

The use of albendazole is also not recommended during pregnancy and breastfeeding.

*Under certain conditions, breastfeeding mothers may still take their prescribed medication by feeding their baby with appropriate breast milk substitutes on the day they take the tablet, and by pumping and discharging their own milk.

The biological half-life of mebendazole (i.e., the time it takes for half of the substance to be eliminated from the body) is short (1.4 to 5.5 hours); it is primarily excreted from the body in the faeces in an unchanged form, with 2% excreted in the urine.

WHAT ELSE CAN WE DO TO PREVENT INFECTION?

- Make sure the child’s nails are kept short;
- Wash hands frequently with soap and water;
- Shower every day (a morning shower is recommended);
- Change underwear daily;
- Wash bedding and towels frequently;
- Avoid scratching around the anus and between the legs;
- Treat individuals infected with pinworms and their family members.

See: Prevention of pinworm infections

WHEN CAN A CHILD WITH PINWORM RETURN TO SCHOOL OR DAY-CARE?

In principle, from the perspective of infectiousness, there are no restrictions on a child's return to day-care/school in cases of pinworm infection. However, it is recommended that a child with pinworms return to the group after completing the first round of treatment.