

## What is an ascaris infection?

An ascarid is a worm that lives in the small intestine. Infection with ascarids is called ascariasis. Adult female worms can grow over 12 inches in length, adult males are smaller.

### How common is ascariasis?

Ascariasis is the most common *human worm* infection. Infection occurs worldwide and is most common in tropical and subtropical areas where sanitation and hygiene are poor. Children are infected more often than adults. In our country, infection is not rare, especially most common in rural areas of the southeast like in every Mediterranean country.

### What are the signs and symptoms of an ascaris infection?

Most people have no symptoms. If you are heavily infected, you may have abdominal pain. Sometimes, while the immature worms migrate through the lungs, you may cough and have difficulty breathing. If you have a very heavy worm infection, your intestines may become blocked.

### How is an ascaris infection spread?

Ascarid eggs are found in the soil. Infection occurs when a person accidentally ingests (swallows) infective ascarid eggs. Once in the stomach, larvae (immature worms) hatch from the eggs. The larvae are carried through the lungs then to the throat where they are then swallowed. Once swallowed, they reach the intestines and develop into adult worms. Adult female worms lay eggs that are then passed in feces; this cycle will take between 2-3 months.

Pigs can be infected with ascarids. Occasionally, a pig ascarid infection can be spread to humans; this occurs when infective eggs, found in the soil and manure, are ingested. Infection is more likely if pig feces is used as fertilizer in the garden; crops then become contaminated with ascarid eggs.

### How can I get ascariasis?

You or your children can become infected after touching your mouth with your hands contaminated with eggs from soil or other contaminated surfaces.

### What should I do if I think I have ascariasis?

See your family physician.

### How is diagnosis of ascaris made?

Your family physician will ask you to provide stool samples for testing. Some people notice infection when a worm is passed in stool or is coughed up. If this happens, bring in the worm specimen to your family physician for diagnosis. There is no blood test used to diagnose an ascarid infection.

### What is the treatment for ascariasis?

In Turkey, ascaris infections are generally treated for 1-3 days with medication prescribed by your family physician. The drugs are effective and appear to have few side-effects. Your family physician will likely request additional stool exams 1 to 2 weeks after therapy; if the infection is still present, treatment will be repeated.

### I am pregnant and have just been diagnosed with ascariasis. Can I be treated?

Infection with ascarid worms is generally light and is not considered an emergency. Unless your infection is heavy, and your health may be at risk, treatment is generally postponed until after delivery of the baby.

### How can I prevent infection with ascarids?

- Avoid contacting soil that may be contaminated with human feces.
- Do not defecate outdoors.
- Dispose of diapers properly.
- Wash hands with soap and water before handling food.

- When traveling to countries where sanitation and hygiene are poor, avoid water or food that may be contaminated.
- Wash, peel or cook all raw vegetables and fruits before eating.

## What is pinworm infection?

This infection is caused by a small, white intestinal worm called *Enterobius vermicularis*. Pinworms are about the length of a staple and live in the rectum of humans. While an infected person sleeps, female pinworms leave the intestines through the anus and deposit eggs on the surrounding skin.

### What are the symptoms of a pinworm infection?

Itching around the anus, disturbed sleep, and irritability are common symptoms. If the infection is heavy, symptoms may also include loss of appetite, restlessness, and difficulty sleeping. Symptoms are caused by the female pinworm laying her eggs. Most symptoms of pinworm infection are mild; many infected people have no symptoms.

### Who is at risk for pinworm infection?

Pinworm is the most common *worm* infection in Turkey. School-age children, followed by preschoolers, have the highest rates of infection. In some groups nearly 50% of children are infected. Infection often occurs in **more than one family member**. Adults are less likely to have pinworm infection, except mothers of infected children. Child care centers, dormitories and other institutional settings often have cases of pinworm infection.

### How is pinworm infection spread?

Pinworm eggs are infective within a few hours after being deposited on the skin. They can survive up to 2 weeks on clothing, bedding, or other objects. You or your children can become infected after accidentally ingesting (swallowing) infective pinworm eggs from contaminated surfaces or fingers.

### How is pinworm infection diagnosed?

If pinworms are suspected, transparent adhesive tape (often called the "scotch tape test") is applied to the anal region. The eggs become glued to the sticky tape or paddle and are identified by examination under a microscope. Because bathing or having a bowel movement may remove eggs, the test should be done as soon as you wake up in the morning. You may have to provide several samples to your family physician for examination. Since scratching of the anal area is common, samples taken from under the fingernails may also contain eggs. Eggs are rarely found during lab examinations of stool or urine. At night, the adult worms can sometimes be seen directly in bedclothes or around the anal area.

### How is pinworm infection treated?

With either prescription or over-the-counter drugs. You should consult your family physician before treating a suspected case of pinworm. Treatment involves usually a two-dose course. The second dose should be given 2 weeks after the first.

### What if the pinworm infection occurs again?

The infected person should be treated with the same two-dose treatment. **Close family contacts should also be treated.** If the infection occurs again, you should search for the source of the infection. Playmates, schoolmates, close contacts outside the house, and household members should be considered. Each infected person should receive the usual two-dose treatment. In some cases it may be necessary to treat with more than two doses. One option is four to six treatments spaced 2 weeks apart.

### How can I prevent the spread of infection and reinfection?

- Bathe when you wake up to help reduce the egg contamination.

- Change and wash your underwear each day. Frequent changing of night clothes are recommended.

- Change underwear, night clothes, and sheets after each treatment. Because the eggs are sensitive to sunlight, open blinds or curtains in bedrooms during the day.

- Personal hygiene should include washing hands after going to the toilet, before eating and after changing diapers.

- Trim fingernails short.

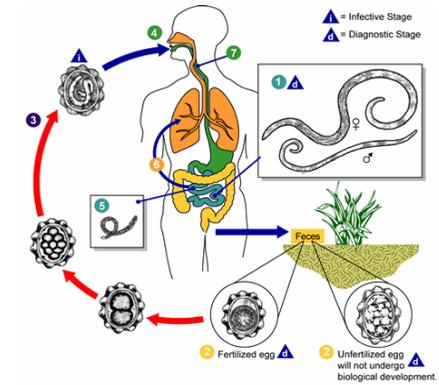
- Discourage nail-biting and scratching bare anal areas. These practices help reduce the risk of continuous self reinfection.

Cleaning and vacuuming the entire house or washing sheets every day are probably not necessary or effective. Screening for pinworm infection in schools or institutions is rarely recommended. Children may return to day care after the first treatment dose, after bathing, and after trimming and scrubbing nails.

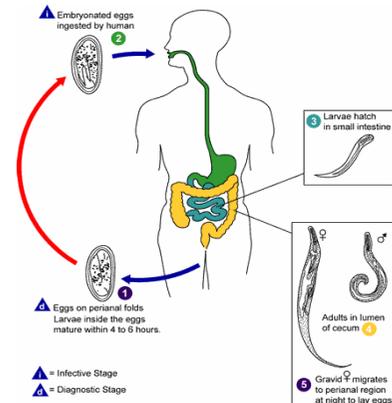
This fact sheet is for information only and is not meant to be used for self-diagnosis or as a substitute for consultation with your doctor. If you have any questions about the disease described above or think that you may have a parasitic infection, consult your family physician. The information in this handout is prepared depending on CDC web page.

# PARASITES

## Ascaris



## Pinworm



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