

## **PINWORMS** *(Enterobius Vermicularis)*

### **What are pinworms?**

Pinworms, sometimes called “threadworm,” are small, white roundworms that sometimes live in the colon and rectum of humans. Pinworms are about one-half inch long, about the length of a staple, and live in the anus and surrounding skin. Pinworm infections are the most common worm infection in the United States.

### **Who can get pinworms?**

Pinworm infection occurs worldwide and affects persons of all ages and socioeconomic levels. Pinworm infection occurs most commonly among school-aged and preschool-aged children, institutionalized persons, and household members and caretakers of persons with pinworm infections. Infections often occurs in more than one person in group settings.

### **How is pinworm infection spread?**

While the infected person sleeps, female pinworms leave the intestine through the anus and deposit their eggs on the surrounding skin, causing intense itching. Pinworm eggs become infective within a few hours and can survive for two to three weeks. People become infected by ingesting pinworm eggs by directly putting fecal-contaminated fingers, objects, and surfaces in their mouths, or indirectly through contaminated clothing, bedding, food, or other articles. People can also ingest airborne pinworm eggs while breathing.

### **How do I know if my child or I have pinworms?**

Itching during the night in the perianal area (the skin surrounding the anus) strongly suggests a pinworm infection. Other symptoms may include sleeplessness, irritability, and anal irritation due to scratching.

Diagnosis is made by identifying the worms or eggs. Worms can sometimes be seen on the skin near the anus or on underclothing, pajamas, or sheets about two to three hours after falling asleep. A “tape test” can be done as soon as the person wakes up to ensure eggs or worms have not been removed due to washing, dressing, or having a bowel movement. To take a “tape test,” firmly press the adhesive side of clear, transparent cellophane tape against the skin around the anus and then seal the tape in a plastic bag for the health care provider to identify under a microscope. This “tape test” should be done three consecutive mornings to increase the chance of finding pinworm eggs or worms. Samples can sometimes be taken from under the fingernails due to the itching of the anal region that is common with pinworm infections. Pinworm eggs are rarely found in routine stool or urine samples.

### **How is pinworm infection treated?**

Pinworms can be treated with either prescription or over-the-counter medications. Consult a health care provider before treating a suspect pinworm infection. Treatment involves two doses of medication with the second dose given two weeks after the first dose. Reinfection can occur easily, so strict observance of good hand hygiene is essential.

### **Should family and other close contacts of someone with pinworms also be treated?**

Yes. Treat all household contacts and caretakers of the infected person at the same time.

### **How can pinworm infection and reinfection be prevented?**

Strict good hand hygiene is the most effective means of preventing pinworm infection. This includes washing hands with soap and warm water after using the toilet, changing diapers, and before handling food. Keep fingernails clean and short, avoid fingernail-biting, and avoid scratching the skin in the perianal area. Teach children the importance of washing hands to prevent infection.

Daily morning bathing removes a large proportion of eggs. Showering is preferred to avoid possible contamination of the bath water. Careful handling (avoid shaking) and frequent changing/laundrying of under clothing, pajamas, towels, and bedding can help reduce pinworm infection, reinfection, and other environmental contamination. Launder items in hot water, especially after treatment and after each usage of cloths until infection is cleared.

If pinworm infection continues to occur, the source of the infection should be sought and treated. Playmates, schoolmates, close contacts outside the home, and household members should be considered possible sources of infection.

### **Do people with pinworms need to be excluded from work or school?**

No. Individuals do not typically need to be excluded from work or school if they are infected with pinworms. Exclusion may be considered where hand hygiene is difficult to maintain.

### **Can an infected person give pinworms to pets or vice versa?**

No. Humans are considered to be the only hosts of *E. vermicularis*/pinworms.

### **Resources**

Centers for Disease Control and Prevention, Pinworm Infection FAQs,  
[https://www.cdc.gov/parasites/pinworm/gen\\_info/faqs.html](https://www.cdc.gov/parasites/pinworm/gen_info/faqs.html)

Division of Public Health's Child Care Manual, "Managing Infectious Disease in Childcare Settings," <https://www.dhss.delaware.gov/dhss/dph/epi/files/ChildCareManual2021.pdf>