

Pinworm (*Enterobius Vermicularis*)

A pinworm ("threadworm") is a small, thin, white roundworm (nematode) called *Enterobius vermicularis* that sometimes lives in the colon and rectum of humans. Pinworms are about the length of a staple. While an infected person sleeps, female pinworms leave the intestine through the anus and deposit their eggs on the surrounding skin.

Transmission

Pinworm is spread through the fecal-oral route, meaning transmission occurs from the anus to someone's mouth through:

- **Environment to Person** by contaminated items, such as clothing, bedding, food or other objects.
- **Person to Person** direct contact with contaminated hands, often on the fingers or under fingernails.

Although anyone can become infected with pinworm, the following groups are more likely to become infected:

- **Preschool and school-aged children.**
- **Household contacts of infected children.**
- **People in a hospital, nursing home or other group settings.**

A person will remain infectious for as long as there are worms laying eggs on the skin around his or her rectum. Pinworm eggs can remain infectious in an indoor environment for two to three weeks. A person can also re-infect themselves or be re-infected by eggs from another person.

Symptoms

Not all infected people will have symptoms. If symptoms do occur, they are usually noticed one to two months after infection and will include:

- **Itching** around the rectum
- **Difficulty sleeping and restlessness**, as a result of itching

Diagnosis

A diagnosis of pinworm can be made by seeing the adult worms around the rectum. Consult a health care professional if you think you or your child has pinworms.

Prevention

- **Hand washing** is the most important preventive measure
 - Wash hands frequently, especially after using the bathroom, scratching affected skin and before preparing meals and eating
- **Good hygiene**; infected people should:
 - **Shower every morning** to help remove eggs on the skin and rectal area
 - **Cut fingernails regularly** and avoid biting the nails and scratching around the anus
 - **Change underwear and bedding** frequently to help prevent re-infection
 - **Avoid co-bathing and the reuse or sharing of washcloths** during treatment and two weeks after the final treatment

Treatment

Treatment shortens the length of time pinworm is spread. Your health care provider can prescribe medications to kill adult worms.

- **Over-the-counter** medications
- **Prescription** medications

All household contacts and caretakers of the infected person should be treated at the same time.

If left untreated, itching and scratching associated with these infections may result in secondary bacterial infections. Some of these may be difficult to treat. Untreated people can continue to infect other people.

For more information about the treatment of pinworm, contact your health care provider or visit [CDC - Enterobiasis - Treatment](#).

Exclusion Guidance

Individuals with pinworms should not be excluded from work, school, or child care unless the [general exclusions apply](#).

- Exclusion and treatment of children can occur at the end of the day and may return once they have done the following:
 - Received their first treatment dose.
 - Bathed.
 - Trimmed and scrubbed their nails.

For additional information about pinworms, contact the North Dakota Health and Human Services' Division of Public Health at 800.472.2180.

Resources:

1. Center for Disease Control and Prevention. (2020, September 28). *Parasites-Enterobiasis*. Center for Disease Control and Prevention. Retrieved May 12, 2023, from <https://www.cdc.gov/parasites/pinworm/>
2. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021- Report of the Committee on Infectious Diseases. 31st ed. American Academy of Pediatrics. [Management and Prevention of Infectious Diseases; Pinworm Infection (*Enterobius vermicularis*)] [pages 122-133; 589-591].