



# Pinworms/Threadworms

## Introduction

A pinworm / threadworm is a small (5-13mm), thin, white roundworm that sometimes lives in the colon and rectum of humans, who are considered to be the only hosts. While an infected person sleeps, female pinworms leave the intestine through the anus and lay their eggs on the surrounding skin.

Pinworm infection is one of the most common intestinal worm infections worldwide and can affect persons of all ages and socioeconomic levels. Pinworm infection occurs most often in childcare centres, pre- and school-age children, as the microscopic eggs are easily spread from child to child. Institutionalized persons, and household members and caretakers of persons with pinworm infection are more prone to getting infected.

Treatment involves oral drugs that kill the pinworms and thorough washing of pyjamas, bed linen and underwear. For best results, the entire family should be treated.

## What are the symptoms of a pinworm infection?

Most people infected with pinworms have no symptoms, but some people experience anal itching which can lead to restlessness and difficulty sleeping. Symptoms of pinworm infection are usually mild and may also include intermittent abdominal pain and nausea. Typical pinworm infections don't cause serious problems.

## How is pinworm infection spread?

Pinworm infection is spread by the fecal-oral route, that is by the transfer of infective pinworm eggs from the anus to someone's mouth, either directly by hand or indirectly through contaminated clothing, bedding, food, or other articles. Because of their microscopic size, pinworm eggs sometimes can become airborne and ingested while breathing. Accidentally swallowing or breathing in pinworm eggs leads to infection, as once swallowed, the eggs hatch in the intestines and mature into adult worms within a few weeks.

Female pinworms move to the anal area to lay their eggs, which often results in anal itching. Scratching the itchy area, causes the eggs to cling to fingers and get under fingernails. The eggs then get transferred to other surfaces, such as toys, clothing or toilet seats. The eggs can also be transferred from contaminated fingers to food, liquids, clothes or other people. Pinworm eggs can survive for two to three weeks on clothing and surfaces, including toys, faucets and toilet seats.

## How is pinworm infection diagnosed?

Itching during the night in the perianal area strongly suggests pinworm infection. Diagnosis is made by identifying the worm or its eggs. Worms can sometimes be seen on the skin near the anus or on underwear, pyjamas, or sheets.





Pinworm eggs can be collected and examined using the “tape test” as soon as the person wakes up. This is done by firmly pressing the adhesive side of clear, transparent cellophane tape to the skin around the anus. The eggs stick to the tape and the tape can be placed on a slide and looked at under a microscope. Because washing or having a bowel movement can remove eggs from the skin, this test should be done as soon as the person wakes up in the morning before they wash, go to the toilet, or get dressed. The “tape test” may need to be done on three consecutive mornings to increase the chance of finding pinworm eggs.

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

Pinworm can be treated with anthelmintic / anti-parasite medications such as Mebendazole. Your GP should be consulted before treating a suspected case of pinworm infection.

Treatment involves two separate doses of medication taken 2 weeks apart. Therefore dose 1 is taken on day 1 and dose 2 is taken on day 14 to kill any remaining eggs. It is also recommended that all household contacts and caretakers of the infected person should be treated at the same time. Re- infection can occur easily so strict observance of good hand hygiene is essential.

### **Prevention of pinworm infection**

Hand washing and hygiene is essential as the most effective means of prevention. Hands should be washed regularly with soap and warm water, especially after using the toilet, changing diapers, and before handling food. Fingernails should be kept clean and short, avoid fingernail-biting, and avoid scratching the skin in the perianal area. Children should be taught the importance of washing hands to prevent infection. Sharing of bath water is not recommended as it can get contaminated with eggs.

### **Measures one should take:**

- Υ **Wash in the morning.** Because pinworms lay their eggs at night, washing the anal area in the morning can help reduce the number of pinworm eggs on your body. Showering may help avoid possible recontamination in bath water.
- Υ **Change underwear daily,** and pyjamas, towels and bedding regularly to help remove eggs. Avoid sharing of any of these items.
- Υ **Wash on hot cycle.** Wash bedding, pyjamas, underwear, washcloths, and towels in hot water to help kill pinworm eggs. Dry on high heat.
- Υ **Don't scratch.** Avoid scratching the anal area. Trim your child's fingernails so there's less space for eggs to collect. Discourage nail biting.
- Υ **Wash your hands.** To reduce your risk of getting or spreading an infection, wash your hands thoroughly after having a bowel movement or changing a nappy and before eating.

***If you would like further information, please contact the Infectious Disease Prevention and Control Unit on 23266109, 23266122 (Monday to Friday from 8am till 2pm)***

