

THREADWORM CAN BE AN ITCHY SUBJECT

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Almost half of children become infected with threadworms yet little attention is given to this common infection. Treatments are available from the pharmacy which combined with good hygiene practices make threadworm management both simple and effective.

Introduction

It is estimated that 40 per cent of children under the age of 10 years will have been infected with threadworms (*E. vermicularis*) at some point in their lives¹. Although treatment for threadworms or pinworms is effective², re-infection is common and hygiene measures are essential to break the cycle of infection and re-infection. Fortunately, threadworm infection is easy to treat. However, it is not always easy for parents to talk about it and parents may be embarrassed discussing personal hygiene.

Symptoms

The most common symptom of threadworms is intense itching in the perianal area, particularly at night and sometimes itching around the vaginal area in girls. This may be accompanied by other symptoms including irritability, abdominal pains and disturbed sleep.

Infection and re-infection

Eggs on the fingers and under the finger nails transfer between children in schools and nurseries, and to other members of the family. Eggs are transferred into the mouth and swallowed. After the eggs are ingested, they hatch in the duodenum and reproduce in the large intestine. The worm takes between one and two months to mature. At night, pregnant females migrate out of the anus and lay up to 15 000 eggs on the surrounding skin together with an irritant mucus.

This causes itching, which promotes scratching, causing the tiny eggs to get lodged under fingernails where they may be ingested, causing re-infection, or transferred onto door handles or other surfaces, putting friends and family members at risk of infection. Shaking contaminated articles spreads the eggs in dust, although less than 10% of eggs survive two days at room temperature³.

Diagnosis

Taking an accurate patient history is usually the simplest way to diagnose threadworms. They may be seen in the stools and appear as thin white threads, however they are tiny and can

easily be missed. The adult males are 2 to 5 mm in length and females are between 8 and 13 mm long.

Treatment

Over the counter treatment, available from the pharmacist is effective in treating threadworms in about 90% of cases².

Mebendazole tablets can be taken by both adults and children over two years of age and may treat the infection in a single dose, although a second dose may be recommended if re-infection occurs. An alternative treatment piperazine combined with senna (available as tablets or sachets of powder which can be added to water or milk) paralyses the worms which are expelled by the laxative effect of the senna. A second dose is usually required 14 days later to break the threadworm life cycle.

Piperazine is suitable for children from the age of three months but is contraindicated in patients with epilepsy, neurological disease or severe renal or hepatic impairment.

Usually the whole family should be treated at the same time to prevent infection and re-infection, however pregnant women should not take either mebendazole or piperazine.

Hygiene

Meticulous attention to hygiene is essential to prevent both infection and re-infection.

To prevent re-infection, the following hygiene measures should be recommended and practiced for at least two weeks:

- Wash hands and scrub finger nails regularly, keep finger nails short
- Wash thoroughly around the perianal area every morning
- Dust damp surfaces daily, washing the cloth frequently in hot water
- Disinfect door handles and light switches
- Vacuum carpets and wash towels, clothes and bed linen regularly
- Wear underwear in bed
- Do not share towels or nail brushes
- Small children can wear mittens at night to discourage scratching

Hand Washing

The community nurse is well placed to offer simple advice about good hand hygiene.

Advise that hand washing should always take place:

- After visiting the toilet
- Before eating or handling food
- After touching animals
- Whenever hands look dirty

This basic information reinforced by a hand washing poster can be invaluable in preventing threadworms from spreading particularly in places like schools and nurseries.

Threadworm Fact File

- It is estimated that about 40% of children under 10 years of age suffer from *E. vermicularis* at least once¹
- Threadworms live in the rectum of humans
- The female worms lay their eggs on the skin around the anus at night
- An 'Itchy bottom' is the most common symptom, but symptoms may be absent⁴
- Eggs on the fingers and under nails transfer to people and clothing and are swallowed
- A female threadworm can lay up to 16,000 eggs before dying
- Eggs can survive for up to 2 weeks on clothing, towels, bedding, in carpets and in dust
- Piperazine and mebendazole are both effective treatments of the infection²
- Drug treatment must be combined with hygiene measures to prevent re-infection

References

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4. Herrström P, Friström A, Karlsson A, Högstedt B. Enterobius vermicularis and finger sucking in young Swedish children. Scand J Prim Health Care 1997;15:146-48