Threadworms

Threadworms are common but are not usually serious. Threadworms infect the gut and lay eggs around your anus which causes itch. Treatment usually includes medication plus hygiene measures. Medication kills the worms, but not their eggs, which can survive for two weeks. Therefore, you also need strict hygiene measures for two weeks after taking medication to prevent you from swallowing eggs which may cause a new infection. All household members should be treated at the same time, including those without symptoms.

What are threadworms?

Threadworms are small, thin, white, thread-like worms between 2 mm and 13 mm long. They infect human guts (intestines). They are common in children, but anyone of any age can be affected.

The life cycle of threadworms

Threadworms live for about 5-6 weeks in the gut, and then die. Before they die, the female worms lay tiny eggs around the anus (back passage). This tends to occur at night when you are warm and still in bed. The eggs are too small to see without a microscope, but cause itching around the anus due to accompanying irritating mucus. You then scratch around the anus to relieve the itching. You often do this without realising while you are asleep. When you scratch, eggs get on to your fingers and under your nails. You may then swallow some eggs if you put a finger into your mouth.

Also, threadworm eggs can survive for up to two weeks outside the body. They fall off the skin around the anus and can fall on to bedding, clothes, etc. They can then get wafted in the air as you change clothes, bedding, etc, and become part of the dust in a home. Some eggs may settle on food or toothbrushes. So, children may swallow some eggs at first by playing with other children who have eggs on their fingers, or from food, drink, toothbrushes, or dust that has been contaminated with threadworm eggs.

Any eggs that you swallow then hatch and grow into adult worms in the gut. So a cycle of threadworm infection can go on and on.

Are threadworms harmful?

Not usually. Often, the worst thing about them is the itch and discomfort around the anus. This sometimes wakes children from sleep. Scratching may make the anus sore. Large numbers of threadworms may possibly cause mild abdominal (tummy) pains and make a child irritable. In girls, threadworms can wander forwards and lay their eggs in the vagina or urethra (the tube through which you pass urine). A doctor may check for threadworms in young girls with a vaginal discharge, bedwetting, or problems with passing urine. Rarely, threadworms can cause other problems such as loss of appetite and weight loss.

How can I tell if my child has threadworms?

Threadworms look like thin, white, cotton threads. Sometimes you can see them in faeces (stools or motions) in the toilet. If you cannot see threadworms in the faeces, but suspect your child has threadworms (if they have an itchy bottom), try looking at the child's anus. You can do this with a torch in the late evening after the child has gone to sleep. Part the child’s buttocks and look at the opening of the anus. If the child has threadworms you can often see one or two coming out of the anus. Do not be alarmed! Ask a pharmacist for advice on treatment in the next day or so.
Your doctor may ask you to do a sticky tape test to confirm the presence of threadworms. To do this you press some clear see-through tape on to the skin around the anus first thing in the morning, before wiping or bathing. You then place the tape on a glass slide or put it in a specimen container. The tape is then sent to the laboratory to be looked at under a microscope to see if any threadworm eggs are stuck to the tape.

**What is the treatment for threadworms?**

All household members, including adults and those without symptoms, should be treated. This is because many people with threadworms do not have any symptoms. However, they will still pass out eggs which can then infect other people. If one member of a household is infected, it is common for others also to be infected. So, everyone needs treatment!

The common treatment is:

- To take a medicine to kill the worms in your gut; AND
- Hygiene measures to clear eggs which may be around your anus or in your home.

**Note:** for babies under the age of three months, only hygiene measures alone are possible, as no medicine is licensed for this age group.

**Medication**

You can buy the following medicines from pharmacies. You can also get them on prescription. If you are pregnant or breast-feeding then see the notes later.

- **Mebendazole** is the usual treatment for people aged over six months. All household members, including adults and those without symptoms, should take a dose at the same time. Just one dose kills the worms. A second dose two weeks after the first is sometimes needed if the infection has not cleared (which may occur if you swallow some eggs after taking the medication).
- **Piperazine** is an alternative medicine. It can be used by anyone aged over three months. You need to take two doses, 14 days apart.

**Hygiene measures**

Medication will kill the worms in the gut, but not the eggs that have been laid around the anus. These can survive for up to two weeks outside the body on underwear, bedding, in the dust, etc (as described above). So, hygiene measures aim to clear any eggs from the body and the home, and to prevent any eggs from being swallowed. This will then break the cycle of re-infection. After taking the first dose of medication for threadworms ...

Firstly, as a one off, aim to clear eggs from where they may be in your home. This means:

- Wash sleepwear, bed linen, towels, and cuddly toys. This can be done at normal temperatures so long as the washing is well rinsed.
- Vacuum and damp-dust your home. Throw out the cloth after use. Pay particular attention to bedrooms, including vacuuming mattresses, and where children play.
- Thoroughly clean the bathroom by damp-dusting surfaces, washing the cloth frequently in hot water. Throw out the cloth after use.

Then, every member of the household should do the following for two weeks:

- Wear close-fitting underpants or knickers in bed, and change every morning. This is so that if you scratch in your sleep, you will not touch the skin near the anus. (Also, consider wearing cotton gloves at night, as this may also help to prevent night-time scratching with fingernails.)
- Every morning have a bath, or wash around the anus, to get rid of any eggs laid overnight. You must do this straight away after getting up from bed.
- Ideally, change and wash nightwear each day.
And general hygiene measures which you should always aim to do to prevent getting threadworms again:

- Wash hands and scrub under the nails first thing in the morning, after using the toilet or changing nappies, and before eating or preparing food.
- Try not to bite your nails or suck fingers, and discourage children from doing so.
- If possible, avoid sharing towels or flannels.
- Keep toothbrushes in a closed cupboard. Rinse well before use.

However, it may not be your home which is a main source of threadworm eggs. Your children may come into contact with eggs in schools or nurseries, particularly in the toilets if they are not cleaned properly. This is why your child may have recurring threadworms, even if your home and personal hygiene is of a very high standard.

**What if I am pregnant or breast-feeding?**

**Pregnancy**
If you are pregnant, during the first third of the pregnancy (first trimester) you should not take medicines which kill worms. However, hygiene measures alone may work. The worms die after about six weeks. Provided that you do not swallow any new eggs, then no new worms will grow to replace them. So, if you continue the hygiene measures described above for six weeks, this should break the cycle of re-infection, and clear your gut of threadworms.

If treatment with medication is considered necessary in the second or third trimester of pregnancy, then your doctor may advise mebendazole. However, strictly speaking, mebendazole is not licensed to be used during pregnancy.

**Breast-feeding**
If you are breast-feeding, again, six weeks of hygiene measures alone is the preferred treatment. If treatment with medication is considered necessary then your doctor may advise mebendazole. However, strictly speaking, mebendazole is not licensed to be used for breast-feeding mothers.

**Can a child with threadworms go to school?**
Yes. There is no need to keep a child with threadworms off school, nursery, etc. The hygiene measures described above will mean that children will not have any eggs on their fingers when they go out from the home each day, and so are unlikely to infect others.

**References**

- Threadworm, Prodigy (2011)
- Wolfram W et al, Enterobiasis, Medscape, Nov 2009
- Guidance on Infection Control in Schools and other Childcare Settings, Health Protection Agency (April 2010)

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