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Tonsillectomy

An operation to remove the tonsils

This information is based on *Clinical Evidence*, the *British Medical Journal's* worldwide survey of the best, most up-to-date medical research, used by doctors everywhere.

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This information tells you what to expect when your child has an operation to take out his or her tonsils. It explains how the operation is done, how it can help, what the risks are and what to expect afterwards.

The benefits and risks described here are based on research studies and may be different in your hospital. You may want to talk about this with the doctors and nurses treating your child.

What is a tonsillectomy?



A tonsillectomy is an operation to remove the **tonsils**. Your tonsils are two small almond-shaped mounds that sit on either side of the back of your throat.

They are part of your body's system for fighting infections.

In a tonsillectomy, a surgeon cuts the tonsils from the throat with special scissors or a heated knife.

Why does my child need this operation?

To stop your child getting tonsillitis: Children have their tonsils out to stop them getting tonsillitis. Tonsillitis is when the tonsils get infected with bacteria or viruses (germs).

If your child gets tonsillitis he or she may have a very sore throat, a high temperature and a headache. Their tonsils usually get red and swollen. Your child may miss more school than other children do.

To stop your child getting hearing problems: Sometimes children have hearing problems because of fluid trapped inside their ears. This is called **glue ear**. Swollen tonsils can stop fluid from draining out of the ears, and this can mean the ears get blocked. Tonsillectomy is not done very often for glue ear because there's no evidence it works.

Children can also get glue ear because of problems with their **adenoids**. The adenoids are swellings at the back of the nose. They are very like tonsils. When they get big they can also block fluid from draining out of the ear. An operation to remove the adenoids is called an adenoidectomy.

A surgeon will usually only suggest children have their tonsils out if they have had:^{1 2 3 4}

- At least five bouts of tonsillitis (sore throat, high temperature and headache) in the past year
- Frequent ear infections because of swollen tonsils
- Swollen tonsils that make it harder to breathe, or hurt so much that it's hard to swallow

- Sore throats that stop them enjoying life. Your child may often miss school or find it hard to sleep.

Doctors can check that the problem is tonsillitis by looking down your child's throat when it is sore. Your doctor will probably keep an eye on your child's sore throats for at least six months before suggesting a tonsillectomy.¹ Your doctor might suggest a tonsillectomy sooner if a child has a particularly important school year ahead, for example.

Each year, about 45,000 people have their tonsils out. The operation is mostly done in children under 15.⁵

What happens during the operation?

The operation takes about 45 minutes and your child will usually have to spend a night in hospital afterwards. This is to make sure he or she recovers properly and that the place where the tonsils were cut out doesn't start bleeding. Your child will probably have a general anaesthetic so he or she will be asleep during the operation.

During the operation your child lies on his or her back, with a support under the shoulders, so the head is tipped back a little. A breathing tube is put into his or her mouth, along with an instrument to hold the mouth wide open. The doctor sits behind your child's head to do the operation, looking into the mouth upside-down.

There are different ways to take out the tonsils.

- **Cutting the tonsils out:** The surgeon gently cuts out the tonsils and uses a small scoop to lift them out.

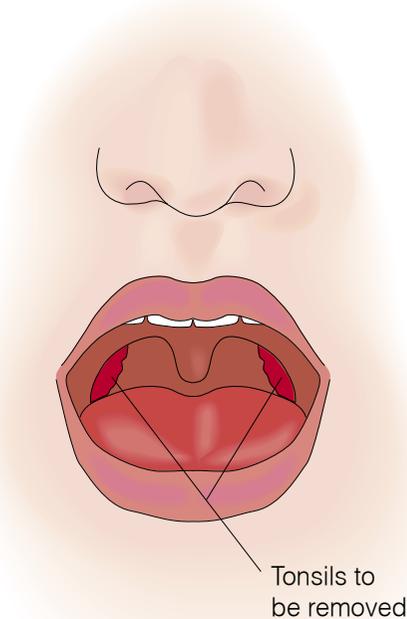
This part of the operation takes only a few minutes.

The surgeon then needs to stop the throat bleeding from where the tonsils used to be.

It takes about 15 minutes to 20 minutes to do this. Your surgeon will stop the bleeding with stitches or heat (diathermy).

If your child needs stitches, these will dissolve away after the operation. The diathermy stops bleeding by heating the blood vessels to seal them closed.

- **Using heat to take out the tonsils (diathermy):** The surgeon uses heat to cut away the tonsils and seal up the area where the tonsils have been removed. The instrument heats to a temperature of about 100°C. A newer method, called **coblation** (or cold ablation), uses a lower temperature (about 60°C) to cut away the tonsils. Your child won't need a general anaesthetic with coblation.⁶



Lasers, ultrasound and freezing can also be used to take out tonsils. They are newer methods and aren't commonly used. There is a big study being done to compare the benefits and risks of different methods of taking out tonsils.⁷ Talk to your child's doctor about the method they plan to use.

Guidelines for doctors say that heat should not be used to cut away tonsils or seal the area after the operation because the heat can cause bleeding.⁸

How can this operation help my child?

There hasn't been any good research to tell us whether your child will get fewer throat infections after having their tonsils removed. It's also not clear if having surgery works better than taking antibiotics to treat tonsillitis.⁹ We also don't know whether taking out tonsils helps stop glue ear.

This is what we know from the research:

- Taking out tonsils may mean less tonsillitis in the short term. For example, one study has found that in the first two years after surgery, most children have fewer throat infections (an average of three less infections than children on antibiotics). But after two years, there is no real difference in throat infections between children who have had their tonsils out and children who keep them (and take antibiotics instead).^{10 11}
- All the methods of taking out tonsils seem to work as well as each other, but the heat methods may be less painful.⁶

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- There hasn't been any good research to say whether taking out the tonsils helps to clear fluid from the ears.¹³

What are the risks?

All operations have risks, and your surgeon should talk to you about them before the operation. The problems that may happen are called **complications**.

Anaesthetics can have side effects. The most common one is that your child will feel sick when he or she wakes up. Serious problems are rare, but doctors will keep a close eye on your child's breathing, heartbeat, temperature and blood pressure. Very rarely, children have an allergic reaction to one of the anaesthetic drugs. You should tell the doctors if your child has any allergies.

Having a cough or cold increases the chance of chest problems so tell your doctor if your child has a cough or cold in the week before surgery. If your child is overweight, he or she may need to lose some weight before surgery. Being overweight increases the risks of problems from the anaesthetic.

Between 2 in 100 and 14 in 100 children having a tonsillectomy have some kind of complication.^{6 10 11 14}

Problems that can happen straight away

Bleeding: The most common problem is bleeding from the place in the throat where the tonsils were. It may be difficult

to stop the bleeding. You may be more likely to bleed if your surgeon uses heat to remove your tonsils or seal the area. Between 4 in 100 and 6 in 100 children who have an operation that uses heat bleed heavily afterwards. About 1 in 100 children who have their tonsils cut away and stitched have heavy bleeding.⁸

Bleeding can be stopped by putting a pad of gauze over the wound. If this does not work, your child may need to go back to the operating theatre to have the bleeding stopped, and may need to be given blood (a blood transfusion).

Damaged teeth: Occasionally, loose teeth may come out during a tonsillectomy, or a tooth can be chipped because of the pressure put on the teeth by the instrument that holds the mouth open.¹⁵

Chest infection: Bits of blood and tissue from the operation can sometimes get into your child's throat and down into his or her lungs. This can cause a chest infection and breathing problems. If this happens your child will need oxygen and antibiotics.

Dying from surgery: There is an extremely small risk that your child may die from an operation to take out tonsils or adenoids. Between 1 in 15,000 and 1 in 25,000 children who have these operations will die from the operation.¹⁶

Problems that can happen later

It is rare for children to get long-term problems after having their tonsils out. But the main ones are:^{17 18}

- The area at the back of the nose can narrow after the operation, causing difficulty breathing
- Your child may sound as though he or she is speaking through their nose (speech therapy can help)
- Problems swallowing and a painful face can occasionally last months or years. This may need another operation.

Tonsils are part of the body's system for fighting infection (immune system) but your child's body can still fight germs well without them.

Will the operation be painful?

Your child won't feel any pain during the operation but he or she will have a very sore throat afterwards. Usually the soreness is not too bad at first, but gets worse after the first day. In one study children had a sore throat that lasted an average of six days after the operation.¹¹

Your child will be given regular doses of painkillers to ease the soreness. If these do not work it's important to tell the nurse. Being in pain can slow your child's recovery. For example, some children may refuse to eat if their throat hurts. If the pain doesn't go away, your child may need a higher dose of painkillers or a different type of painkiller.

Children whose tonsils are removed by the newer heat method, called coblation, seem to have less pain afterwards. They also seem to heal faster and start eating normally sooner than children who have their tonsils removed using the other methods.^{6 19}

Your child's jaw and mouth might hurt because their mouth was held wide open during the operation.

What will happen if I choose not to have my child's tonsils removed?

Many children grow out of tonsillitis. So if you choose not to have your child's tonsils removed their tonsillitis may still clear up. But no one can say if this will happen or how long it takes because there is not much research on how tonsillitis develops naturally.²⁰

In one study, children who had been waiting for a tonsillectomy for at least nine months were examined again. Over a quarter of them had fewer throat infections (or none) and no longer needed surgery.²¹

There are some problems that could happen if you leave swollen tonsils in.^{3 20} These problems are very rare.

- The area around the tonsils can get very red and swollen and form an **abscess**. An abscess is a swelling full of pus. When it happens around the tonsils, doctors call this a quinsy or peritonsillitis. The abscess usually needs to be cut open and then your child will take antibiotics to treat the infection.
- A type of bacteria that causes tonsillitis (called Streptococcus) can also cause **rheumatic fever**. This is a disease that can damage your child's joints, heart and

brain. If your child's heart is affected he or she may be at risk of heart failure.

- Children may have a type of fit called a **febrile convulsion**, which is brought on by a sudden rise in their temperature because of the tonsillitis. These fits are most common in children aged 1 to 4. They are not harmful and children grow out of them.
- Sometimes tonsils become so swollen they may make it difficult for your child to breathe and need to be removed.

When you're thinking whether your child should have this operation, you may need to weigh up how much disruption tonsillitis is causing in your family. Your child may be missing school and sleeping badly. He or she may find it hard to eat because of sore throats. Other family members may catch throat infections and parents may have to take time off work to look after ill children.²²

Surgery offers the chance of fewer throat infections straight away and this may make life better for your family. But any benefits must be balanced against the risks of the operation.

What other treatments are there?

There are other treatments that can help with the pain of tonsillitis, but antibiotics are the only other treatment that is used to try and stop the sore throats in the long term.

Antibiotics: Tonsillitis is usually treated with antibiotics before surgery. These can prevent tonsillitis that is caused by specific

bacteria (a type of Streptococcus). But they won't work for many children because most sore throats are caused by a virus not by bacteria. Antibiotics can cause side effects such as allergic reactions, diarrhoea, stomach upset and rashes.¹

Painkillers: Paracetamol soothes sore throats, but doesn't get rid of the infection. Anti-inflammatory medicines, such as ibuprofen, also ease pain and swelling. These work faster than paracetamol but have more side effects if taken regularly, such as being sick and having diarrhoea.¹

What can I expect after the operation?

Your child will probably need to stay in hospital overnight.²³ Your child's temperature, pulse and blood pressure will be taken regularly. After several hours, he or she will be able to drink, and will be encouraged to eat normally as soon as possible, because this can help with the healing process. After about 12 hours a white or yellowish membrane (thin skin) appears where the tonsils were. It is nothing to worry about and is not a sign of infection.²⁴ It's just new skin growing over the wound.

Going home

When you get home, your child will probably feel a little unwell and have bad breath for a couple of days. Your child may have earache for a few days. If painkillers don't work then see your GP in case it is an ear infection.

If your child's throat starts to bleed again, he or she needs to go to hospital to make sure this is not serious.

It will be a couple of weeks before your child is back to normal.



It's best to keep your child off school for this time so he or she doesn't mix with other people who might have coughs or colds.

Encourage your child to eat as normally as possible. Although it may be painful, eating foods such as toast and cereal can help healing by scraping away dead tissue.

The thin white skin where the tonsils used to be will last about 10 days to 14 days. If it becomes infected, this will be painful. See your GP if you're worried. Your child may have a high temperature and very bad breath. If your child has an infection he or she will need to take antibiotics.

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