

## Patient information from the BMJ Group

# Prostatitis, chronic

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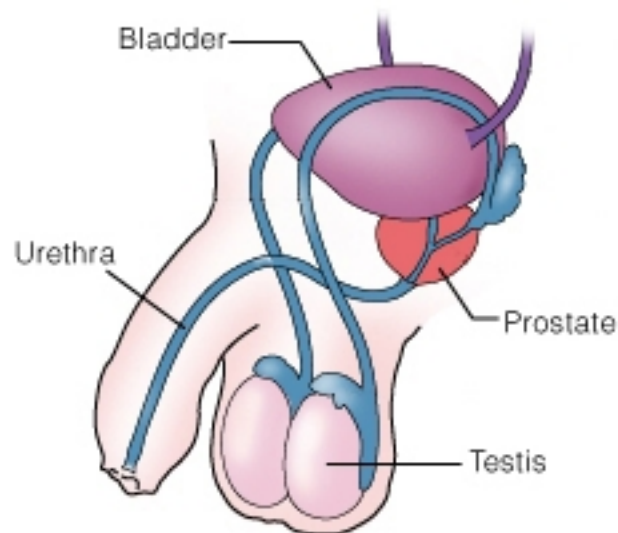
## Prostatitis, chronic

Prostatitis is a painful condition that can affect men of any age. You may get pain in your pelvis, groin, or lower back. You may also have pain when you urinate and a feeling that you need to urinate urgently. Doctors often can't say what's caused your prostatitis.

We've brought together the best research about prostatitis and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for you.

## What is prostatitis?

Prostatitis means inflammation of the prostate gland.



Men's prostate glands are underneath their bladders.

Only men have a prostate. It is a small, solid **gland** about the size of a walnut. It sits at the base of the **bladder**. The main job of the prostate is to help make the milky fluid (semen) that comes out of your penis when you ejaculate. The fluid from your prostate helps keep your sperm healthy and helps them to swim.

If you have prostatitis, you may get pain in your pelvis (the area between your hip bones) or around your genitals. The word chronic means that the condition lasts a long time.

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Your doctor may say you have chronic prostatitis if you've had symptoms for at least six months.

Although prostatitis means an inflamed prostate, some doctors think that the pain may not be caused by the prostate. They think it might come from something else, such as tension in the muscles around your bladder. Because of this uncertainty, doctors sometimes use the term **chronic pelvic pain syndrome**.

Prostatitis is different to an [enlarged prostate](#) (called benign prostatic hyperplasia, or BPH). Lots of men get an enlarged prostate as they get older, but it doesn't usually cause pain.

Prostatitis is common, but there hasn't been much research to help doctors recognise and treat it. Doctors still don't understand this condition very well.

There are two main types of prostatitis. In one type you have an [infection](#) in your urine or in the fluid from your prostate. In the other type, there are no obvious signs of infection. Symptoms for both types are similar. It's much more common to have chronic prostatitis without signs of an infection.

### Prostatitis caused by an infection

Researchers think that about 1 in 10 men with prostatitis have an infection.<sup>[1]</sup> But it's difficult to be sure of the numbers. You may hear this type of prostatitis called **bacterial prostatitis**. If you have this type of prostatitis, tests will show that there are [bacteria](#) in your urine or in the fluid from your prostate gland. You're also likely to have a high temperature and chills.

### Prostatitis not caused by an infection

You may have tests to check for bacteria in your urine or in the fluid from your prostate. For many men, these tests will be negative. Doctors have started to call this type of prostatitis **chronic pelvic pain syndrome** because the main problem may not be to do with the prostate gland at all. You might also hear this type of prostatitis called **non-bacterial prostatitis** or **abacterial prostatitis**.

### What causes it?

Researchers aren't sure what causes prostatitis. They are looking at:<sup>[2]</sup>

- Unusual infections caused by bacteria or other germs. These may be missed by the usual tests for infection
- Problems with the [immune system](#). Prostatitis may be caused by a problem with your immune system
- Other muscles or organs in the pelvis. Some researchers think the symptoms of prostatitis are caused by tense muscles in your pelvis.

### What are the symptoms of prostatitis?

If you have prostatitis, you get pain in your pelvis or genitals. You may also have problems urinating. The word chronic means that the condition can last a long time. Your doctor may say you have chronic prostatitis if your symptoms last for six months or more.

You may get pain or aching: <sup>[3]</sup>

- In the area between your anus and your testicles (this area is called the **perineum**)
- In or around your penis or testicles
- Low down in your pelvis (the part of your body between your two hip bones)
- In your lower back.

You may also have problems urinating. These problems may include: <sup>[4]</sup>

- Urinating more often than usual
- Feeling that you can't hold onto your urine and have to go urgently
- A burning pain when you urinate
- Having to wait to start urinating
- A weak stream
- Stopping and starting when you urinate.

And you may have pain after an orgasm. <sup>[3]</sup>

There are other conditions that can cause these symptoms. So your doctor will check whether you have a bladder infection, an [enlarged prostate](#) , [prostate cancer](#) , or a narrowing inside your penis that makes it hard to urinate. Your doctor can usually tell whether you have any of these other problems by examining you and asking about your symptoms.

Prostatitis can last a long time and make you feel miserable. It isn't dangerous, but it can affect how much you enjoy life just as much as other chronic illnesses. <sup>[5]</sup>

### How common is chronic prostatitis?

Prostatitis is very common. Men of any age can get it.

We don't know exactly how common chronic prostatitis is in the UK.

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One study in the US found that about 1 in 10 men have prostatitis at any one time.<sup>[6]</sup> Chronic prostatitis is when you've had prostatitis for at least six months.

### What treatments work for chronic prostatitis?

Doctors have tried many different treatments for men with prostatitis. But most of the treatments haven't been properly studied.

- Drugs called alpha-blockers can help some men with pain and other symptoms. They help to relax the muscles in and around the prostate gland.
- If you have an infection, antibiotics can also help. But they are unlikely to help if you don't have an infection.
- There hasn't been enough research on all the other treatments for prostatitis to be sure which are most likely to work.

Prostatitis is beginning to get more attention from researchers and the people who fund research, such as charities and governments. But progress is slow.<sup>[2]</sup> <sup>[7]</sup>

Which treatments work best? We've looked at the best research and given a rating for each treatment according to how well it works.

### Treatment Group 1

#### Treatments for chronic prostatitis

##### Treatments that are likely to work

- [Antibiotics](#)

##### Treatments that need further study

- [TURP](#)
- [Painkillers](#)
- [Alpha-blockers](#)
- [Finasteride](#)
- [Allopurinol](#)
- [Mepartricin](#)
- [Quercetin](#)

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- [Sitz baths](#)
- [Heat treatment with microwaves](#)
- [Pelvic floor relaxation using biofeedback](#)

### Treatments that are unlikely to work

- [Massaging the prostate gland](#)

### Other treatments

- [Lifestyle changes](#)

## What will happen to me?

There are lots of treatments you can try for prostatitis, but most of them haven't been studied very well. Many men say their symptoms get better over time, even without any treatment.

Researchers are looking for better treatments for prostatitis. They are beginning to have more idea about what works. And your symptoms may go away without treatment. In one study, one-third of the men said their symptoms got better after about a year without treatment. <sup>[7]</sup>

But prostatitis can make you feel miserable and stop you doing things you would normally do, especially if you've had it for a long time. Some men with prostatitis get depressed or anxious. It's important to mention these feelings to your doctor. You may need help coping with your symptoms. <sup>[7]</sup>

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## Treatments:

### Alpha-blockers

In this section

We don't know if alpha-blocker drugs can help your symptoms. Several small studies gave positive results, suggesting that men who take an alpha-blocker might have less pain and fewer problems urinating. <sup>[8] [9] [10] [11] [12]</sup> But a bigger, more recent study found that an alpha-blocker called alfuzosin worked no better than a dummy ( placebo ) drug. <sup>[13]</sup>

If your prostatitis is caused by an infection, you'll be treated with [antibiotics](#) . Taking an alpha-blocker as well may give you extra benefit. One study found that taking antibiotics together with an alpha-blocker worked better than just taking antibiotics. <sup>[14]</sup>

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You can get alpha-blockers on prescription. The most common alpha-blockers (and their brand names) are:

- Alfuzosin (Xatral)
- Tamsulosin (Flomax)
- Terazosin (Hytrin).

Alpha-blockers can cause side effects. You might feel dizzy or tired and have a reduced sex drive.<sup>[8]</sup> <sup>[9]</sup> Alfuzosin and tamsulosin may be less likely to cause dizziness than some other alpha-blockers.<sup>[8]</sup> <sup>[9]</sup>

If you have an eye condition called [cataracts](#), taking tamsulosin can make an operation to treat them more difficult. Cataracts can turn your vision blurry or cloudy. During an operation to treat them, your iris (the coloured part at the front of your eye) may become floppy if you take tamsulosin. This makes it harder for the surgeon to reach the other parts of your eye. Other alpha-blockers may also cause the same problem.

You shouldn't start taking alpha-blockers if you're due to have an operation for cataracts.<sup>[15]</sup> If you're already taking an alpha-blocker, not taking it for a few weeks before surgery may reduce the problem, but we don't know for certain. Ask your doctor about this. You should also make sure you tell whoever will be doing your cataract operation that you've been taking an alpha-blocker.

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## Antibiotics

In this section

Antibiotics kill **bacteria**. You usually take them as tablets. They can help men who have prostatitis because of a bacterial infection. But only about 1 in 10 men with prostatitis have a bacterial infection.<sup>[1]</sup>

In four studies, three-quarters of men with prostatitis caused by a bacterial infection felt much better or completely better after taking antibiotics for four weeks.<sup>[16]</sup> <sup>[17]</sup> <sup>[18]</sup> <sup>[19]</sup> The antibiotics used in these studies were ciprofloxacin (brand name Ciproxin), levofloxacin (Tavanic), azithromycin (Zithromax), doxycycline (Vibramycin), or lomefloxacin. Lomefloxacin isn't available in the UK.

In some studies, up to 9 in 10 men taking an antibiotic were cured.<sup>[20]</sup> But the men in these studies weren't compared with men taking a dummy treatment (a **placebo**). So we don't know how many men would have got better without the antibiotics.

One study found that taking antibiotics together with an [alpha-blocker](#) worked better than just taking an antibiotic.<sup>[14]</sup> Men who also took an alpha-blocker were less likely to

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have their prostatitis come back. The men in this study all had prostatitis caused by bacteria.

Two studies of men who didn't have a bacterial infection found that antibiotics didn't help. <sup>[21]</sup> <sup>[22]</sup> But these men had had severe symptoms for many years. So we can't say if antibiotics might help if you've only had symptoms for a short time, even if you don't have an infection.

All antibiotics have side effects. Ciprofloxacin, levofloxacin, and lomefloxacin may make you feel sick. They may also cause vomiting, heartburn, and diarrhoea. In studies, between about 5 in 100 and 20 in 100 men got stomach problems while they were taking antibiotics. <sup>[16]</sup> <sup>[17]</sup>

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## Painkillers

In this section

NSAIDs ( nonsteroidal anti-inflammatory drugs ) are painkillers that also reduce inflammation . Ibuprofen is an NSAID. You can buy ibuprofen yourself from a pharmacist, or get stronger NSAIDs on prescription from your doctor. One stronger NSAID is called celecoxib (brand name Celebrex).

One study of men with chronic prostatitis found that celecoxib helped improve their pain and ability to urinate. <sup>[23]</sup> But the study was quite small (64 men) and only lasted eight weeks. So we need more research before we can be sure it works.

NSAIDs can cause side effects that affect your stomach. The most common are stomach upsets, diarrhoea , or feeling sick.

Paracetamol is another common painkiller you could try. We haven't looked at the research on it in the same way we have for the other treatments we cover. But some men have tried it to help with the pain of prostatitis.

You need to be careful not to take more paracetamol than the dose printed on the packet. An overdose can cause very dangerous liver damage.

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## TURP

In this section

You can have an operation to remove some or all of your prostate gland. There hasn't been any good research on surgery for prostatitis, so we don't know if it works. Doctors don't usually recommend surgery for men who have prostatitis.

Surgeons can remove all of your prostate by making two small cuts in your abdomen (called keyhole surgery) or through one big cut (called open surgery). It is a serious operation. And it can lead to sexual problems or problems urinating. Keyhole surgery

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can cause bleeding and fertility problems.<sup>[24]</sup> <sup>[25]</sup> Open surgery can cause bleeding, erection problems, and **incontinence** .

An operation to remove part of your prostate is called **transurethral resection of the prostate** (TURP). A thin tube is put into your penis. The operation is done with instruments that are passed up through this tube.

TURP is a serious operation. You may get bleeding or a problem where no semen comes out of your penis when you have an orgasm.<sup>[26]</sup> This is called dry climax.

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### Finasteride

In this section

Finasteride (Proscar) is a drug that shrinks the prostate gland. It helps men with an enlarged prostate to urinate more normally. Many men get an enlarged prostate as they grow older.

Because finasteride helps men with an enlarged prostate, doctors thought it might help men with chronic prostatitis too. We don't know if it does. There hasn't been much research on this.

We found two studies.<sup>[22]</sup> <sup>[27]</sup> In one study, three of the 31 men who took finasteride said it affected their sex lives.<sup>[27]</sup> But this study was too small to be reliable.<sup>[27]</sup> The other study found that finasteride didn't help.<sup>[22]</sup>

This drug has been tested only in men who don't have an infection in their prostate.

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### Allopurinol

In this section

Allopurinol (Zyloric) is a drug normally used to treat **gout** , a painful type of **arthritis** caused by a build-up of chemical crystals in small joints. Some doctors think that chronic prostatitis might be caused by a similar build-up in the prostate.

But there's no evidence that allopurinol helps pain or other symptoms of prostatitis. We found only one study. But it was small and not well done, so the results aren't reliable.<sup>[28]</sup>

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### Mepartricin

In this section

Some doctors think that the hormone **oestrogen** may play a part in causing chronic prostatitis. A drug called mepartricin may reduce the amount of oestrogen in your prostate.



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So researchers have looked at this drug to see if it can help. However, mepartricin is still an experimental treatment. It's not available in the UK.

The researchers found that taking mepartricin for 60 days helped men have less pain and feel better generally.<sup>[29]</sup> But it didn't help with problems urinating. However, the study only looked at 30 men. That's not enough to know for certain whether this treatment works or not.

The study didn't find many side effects.<sup>[29]</sup> Two of the 15 men taking mepartricin got stomach pain or felt sick. But they didn't feel bad enough to stop taking their treatment.

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## Quercetin

In this section

Quercetin is a natural chemical called a flavonoid. It's found in several foods, including red wine, green tea, and onions. You can also buy supplements that contain quercetin from health food shops.

Doctors have tried using quercetin capsules as a treatment for chronic prostatitis. These contain a much higher amount of quercetin than you'd get from foods or drinks.

Quercetin is still an experimental treatment. There hasn't been enough research to know whether it works, but one small study had promising results.<sup>[30]</sup> Nearly 7 in 10 men taking quercetin had less pain and felt better generally. Only 2 in 10 men who took a dummy treatment (a placebo) said they felt better. However, quercetin didn't help with problems urinating.

Most men in the study didn't get side effects.<sup>[30]</sup> Of the 15 men taking quercetin, one got a headache when he started treatment. Another got a tingling feeling after taking each dose. Both of these problems went away after the men finished their treatment.

If you want to try quercetin, remember that supplements aren't regulated in the same way that drugs are, and products can vary. It's worth checking the packaging to see exactly what you're buying. In the research we looked at, men took 500-milligram capsules of quercetin twice a day.

It's also worth telling your doctor about any supplements you're taking. That's because they can have side effects or may interfere with other treatments you're taking.

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## Sitz baths

In this section

A Sitz bath is a warm bath that covers your bottom and hips. This is a simple treatment and you may find it soothing. You can buy special Sitz baths, or you could just use your bathtub.

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There hasn't been any good research on warm baths. But this treatment is easy to do, so it may be worth trying.

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### Heat treatment with microwaves

In this section

Doctors can use microwaves to heat up your prostate. The microwaves come from a probe that is put inside your penis. Doctors think this may help to reduce inflammation or stop some nerves sending pain signals to your brain. <sup>[9]</sup>

You usually have just one treatment. It takes about an hour. <sup>[31]</sup> You will need a **local anaesthetic** to numb the area, or a **general anaesthetic** to make you sleep.

One small study found that heat treatment helped 7 in 10 men. <sup>[31]</sup> But we need more studies to know for certain whether this treatment works. The study included only men who didn't have an infection in their prostate.

In the study, 4 of the 20 men had side effects, such as bleeding, a urine infection, incontinence, or erection problems. <sup>[31]</sup>

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### Pelvic floor relaxation using biofeedback

In this section

Your pelvic floor muscles sit under your bladder. They help to support the bladder and control your urine flow. A nurse can train you to relax your pelvic floor muscles using feedback from special electrodes (called biofeedback). <sup>[32]</sup>

The feedback will tell you if you're relaxing the right muscles. If the pain of prostatitis is caused by tension in your pelvic floor muscles, then learning to relax them could help. But there hasn't been any good research on this treatment, so it's hard to be sure it works.

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### Massaging the prostate gland

In this section

A doctor can massage your prostate gland. He or she does this by putting a gloved finger inside your back passage (rectum). But the one small study we found that looked at this treatment found that it didn't help most men.

The study compared men who had **antibiotics** with men who had antibiotics and prostatic massage three times a week for four weeks. <sup>[33]</sup> The men who had massage didn't do any better than the men who just took antibiotics.

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### Lifestyle changes

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In this section

Some men try making changes to their lifestyle to help with prostatitis. There hasn't been any research on any of these things, but you could try:

- Drinking more fluids
- Making sure you urinate as soon as you need to
- Avoiding spicy foods, alcohol, and drinks with caffeine in them (such as tea, coffee, and cola)
- Using a laxative (such as lactulose) to soften your stools. This might help if you get pain when you go to the toilet
- Using a comfortable saddle if you ride a bike. You might want to try a special saddle with a gap in the middle.

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## Further informations:

### Glossary:

#### **gland**

A gland is any group of cells in the body that makes and releases something for use by another part of the body. For example, the thyroid gland makes a hormone called thyroxine. This acts on receptors within cells. By acting on the receptors it gives the cells a message to speed up their metabolism and work harder.

#### **bladder**

Your bladder is the hollow organ at the top of your pelvis that stores urine. It is similar to a balloon, only with stronger walls. It fills up with urine until you go to the toilet.

#### **semen**

Semen is the whitish fluid that is released through the penis during an orgasm. Semen is made up of millions of tiny sperm floating in fluid. Sperm are the part of the semen that can join with a woman's eggs to make her pregnant. Sperm are made in the testicles, and travel through tubes (called the vas deferens) to get to the penis. Along the way, the sperm are joined by fluid that is released from the prostate and seminal vesicles. This fluid helps the sperm to travel and provides them with nutrients.

#### **infection**

You get an infection when bacteria, a fungus, or a virus get into a part of your body where it shouldn't be. For example, an infection in your nose and airways causes the common cold. An infection in your skin can cause rashes such as athlete's foot. The organisms that cause infections are so tiny that you can't see them without a microscope.

#### **bacteria**

Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

#### **immune system**

Your immune system is made up of the parts of your body that fight infection. When bacteria or viruses get into your body, it's your immune system that kills them. Antibodies and white blood cells are part of your immune system. They travel in your blood and attack bacteria, viruses and other things that could damage your body.

#### **depression**

Depression is a mental illness in which your mood is low and you feel sad most of the time. It can range from a mild illness through to a severe one in which you lose interest in life and may be suicidal.

#### **placebo**

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk

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about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

## NSAIDs

NSAID stands for nonsteroidal anti-inflammatory drug. NSAIDs help with pain, inflammation and fever. They are called 'nonsteroidal' because they don't contain any steroids. Aspirin and ibuprofen are both NSAIDs.

## inflammation

Inflammation is when your skin or some other part of your body becomes red, swollen, hot, and sore. Inflammation happens because your body is trying to protect you from germs, from something that's in your body and could harm you (like a splinter) or from things that cause allergies (these things are called allergens). Inflammation is one of the ways in which your body heals an infection or an injury.

## diarrhoea

Diarrhoea is when you have loose, watery stools and you need to go to the toilet far more often than usual. Doctors say you have diarrhoea if you need to go to the toilet more than three times a day.

## incontinence

If you have incontinence, you cannot control when you pass urine (this is called urinary incontinence) or have a bowel movement (faecal incontinence).

## gout

This is a disease of the joints that is caused by a buildup of a chemical called uric acid. This chemical actually forms a crystal within the blood that gets stuck in the joints, causing swelling and pain. Gout attacks often occur in the big toe, but the disease can affect other joints in the body as well. Attacks are excruciatingly painful, but, fortunately, can be treated with a variety of medicines and a special diet.

## arthritis

Arthritis is when your joints become inflamed, making them stiff and painful. There are different kinds of arthritis. Osteoarthritis is the most common type. It happens when the cartilage at the end of your bones becomes damaged and then starts to grow abnormally. Rheumatoid arthritis happens because your immune system attacks the lining of your joints.

## oestrogen

Oestrogen is the name given to three female sex hormones: oestradiol, oestrone and oestriol. Oestrogen causes women's sexual development during puberty: it is needed to develop breasts, have periods and get pregnant. Oestrogen is also thought to affect women's health in other ways. It may influence their mood, cholesterol levels and how their bones grow. Men have very low levels of oestrogen in their bodies, but doctors aren't completely sure what it does. Oestrogen is an important ingredient in most types of contraceptive pill and hormone replacement therapy.

## local anaesthetic

A local anaesthetic is a painkiller that's used to numb one part of your body. You usually get local anaesthetics as injections.

## general anaesthetic

You may have a type of medicine called a general anaesthetic when you have surgery. It is given to make you unconscious so you don't feel pain when you have surgery.

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