

## Patient information from the BMJ Group

# Warts and verrucas

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## Warts and verrucas

Warts are growths on your skin. They can sometimes be uncomfortable or sore, but they usually aren't serious. They often clear up on their own. If you want to try to get rid of them more quickly, there are treatments available. Warts on the soles of your feet are often called verrucas.

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

## What are warts?

Warts are growths on your skin. Warts on the soles of your feet are often called verrucas.

Warts and verrucas are usually harmless, but you may not like the way they look. Some people find them embarrassing. Warts can be very sore if they grow under, or next to, your fingernails or toenails.<sup>[1]</sup> <sup>[2]</sup> And verrucas on the soles of your feet can sometimes be painful.



Warts on the soles of your feet are often called verrucas.

Warts usually appear as flesh-coloured growths with a rough surface. Because of the bumpy surface, they're often described as looking like tiny cauliflowers. Warts are often hard. But warts can sometimes be dark and have a smooth surface.<sup>[1]</sup>

You may see small black dots in your wart or verruca. Some people think these look like seeds, but they're actually tiny blood vessels.<sup>[3]</sup> Warts may also interrupt the normal pattern of tiny ridges on your skin (for example, your fingerprints).<sup>[3]</sup>

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Warts are caused by a **virus** that **infects** your skin.<sup>[3]</sup> There are dozens of different types of this virus. The type of wart you get depends on the type of virus that's infected your skin. It also depends on where the wart grows on your body.<sup>[3]</sup>

Older children and teenagers are most likely to get warts. As we get older, we tend to get a natural immunity to the virus that causes warts. That's why they often clear up on their own without treatment.<sup>[2]</sup>

Warts are nothing to worry about. You're more likely to get warts if your **immune system** is weak, but this isn't a problem for the vast majority of people with warts.<sup>[3]</sup> Things that weaken your immune system include:

- Having **HIV** or **AIDS**
- Having cancer
- Having had an organ transplant.

Warts can spread directly from person to person, but this isn't common. You are more likely to pick up the virus that causes warts in shared washing areas and showers like those you find in swimming pools or gyms. This is much more likely if you have small cuts on your feet.<sup>[3]</sup>

Warts can be hard to treat, but very often they will clear up on their own. It's perfectly all right to leave a wart alone if it doesn't bother you.<sup>[2]</sup> But many people want treatment to get rid of warts. Most people don't like the way warts look, especially if they have them on their face or hands. And warts and verrucas can sometimes be painful.<sup>[2]</sup>

There are treatments you can buy yourself from a pharmacy. If these don't work, you can talk to your doctor about treatment.

Warts near your genitals need more careful treatment. You should see your doctor if you get warts in your genital area. To read more, see [Genital warts](#) .

### **What are the symptoms of warts?**

Warts are usually harmless and painless. But many people don't like the way they look, and they can be upsetting if you get them on your face or hands.

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Warts and verrucas can be caught in shared changing rooms.

Warts can sometimes be uncomfortable and sore, especially if you get them on the soles of your feet. <sup>[4]</sup>

Warts on the soles of your feet are often called verrucas.

There are several different kinds of wart.

- **Common warts** are rough or raised lumps. You can get them anywhere on your body, but they're most often found on people's hands. <sup>[4]</sup>
- **Flat warts** or **plane warts** are small and slightly raised. They have a smooth surface. You usually get them on your face or forehead. <sup>[5]</sup>
- **Plantar warts** or **verruucas** happen on the soles of your feet. They first appear as small, smooth, and rounded. Later, they become rough, with a thick ring of hardened skin around them. <sup>[5]</sup>
- **Mosaic warts** are when several plantar warts or flat warts join together in a larger patch.
- **Subungual** and **periungual warts** are warts you get under or around your fingernails or toenails.

Your doctor will probably be able to tell whether you have warts just by looking at them. <sup>[5]</sup>

### How common are warts?

Most people get warts at some point in their lives. <sup>[6]</sup> <sup>[7]</sup> And we know that older children and teenagers are most likely to get warts, especially if they often use shared washing and shower areas. <sup>[7]</sup> But it is hard to say how many people have warts at any one time, because the research on this varies.

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- A study among children in the UK found that more than 10 in 100 children aged between 4 and 6 had warts. <sup>[8]</sup>
- A study in Australia found that nearly 25 in 100 young people aged between 16 and 18 had warts. <sup>[9]</sup>
- Girls and boys are equally likely to get warts. <sup>[6]</sup>

### What treatments work for warts?

If your warts aren't painful and you don't mind the way they look, you may want to see if they clear up on their own. But if you're bothered by them then there are several treatments that may help. However, no single treatment for warts has been shown to work for everyone.

- You can buy several over-the-counter treatments for warts. Many of these work well, but they can irritate your skin or cause scarring. So it may be best not to use them on your face. Ask your doctor if you have any doubts.
- Don't try cutting or picking a wart off. If you're having trouble getting rid of a wart, talk to your doctor.
- Your doctor can remove warts with surgery or laser therapy, or by freezing them off.
- There are lots of folk remedies for treating warts, but they probably don't work.
- Some treatments involve filing a wart down with a pumice stone or emery board. Don't let anyone else use it, or they could get a wart too. It could also spread the wart to other parts of your body. You should wash your pumice stone or emery board carefully in warm water after you use it. Even better, buy another one to use on other parts of your body or for other people to use.
- You can try to prevent warts on your feet by wearing rubber verruca socks or flip flops in shared changing areas or showers. But we don't know how well this works.

No single treatment for warts has been shown to work for everyone. <sup>[13]</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 warts and verrucas

#### Treatments that work

- [Salicylic acid](#)

#### Treatments that are likely to work

- [Treatment to stimulate your immune system](#)

#### Treatments that need further study

Doctors sometimes try other treatments to see whether they can help to get rid of warts. These treatments may help some people, but we need a lot more research before we can know for certain how well they work.

- [Duct tape](#)
- [Having warts frozen off by a doctor](#)
- [Pulsed dye laser](#)
- [Photodynamic treatment](#)
- [Silver nitrate](#)
- [Surgery](#)
- [Zinc tablets](#)

### What will happen to me?

Warts often clear up on their own without any treatment.

One study found that 9 in 10 children who had warts when they were 11 were free of them by the time they were 16. <sup>[10]</sup>

Other studies have found that warts clear up without treatment in about one quarter of people after just two months. About two-thirds of people who have warts find that they clear up on their own within two years. <sup>[11] [12]</sup>

But some warts don't clear up on their own. These can be difficult to treat, because no single treatment has been shown to get rid of all kinds of warts. <sup>[10]</sup>

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Sometimes, warts can continue to grow and spread. If this happens, they can become even harder to treat.<sup>[10]</sup> Some warts are particularly difficult to get rid of.<sup>[11]</sup> These include:

- Warts in adults
- Warts that have lasted many years
- Warts in people who have a weak immune system
- Warts around or under your fingernails or toenails.

If you're finding it difficult to get rid of your warts, you may need to try more than one treatment.

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### Treatments:

#### Salicylic acid

In this section

This is a treatment you paint on to your warts every day. You can also get plasters or pads that have salicylic acid in them. It works by slowly destroying the hard skin that makes up the wart. It also irritates your skin, and some doctors think that this may stimulate your body's [immune system](#) to fight off the wart.

There are several different medicines that contain different amounts of salicylic acid. The type you use depends on the kind of wart you need to treat.

You can buy wart treatments that contain salicylic acid from a pharmacy. Bazuka gel, Cuplex, Duofilm, Occlusal, Salactol, and Salatec form a film over the wart. Verrugon is for warts on the soles of your feet (verruucas). It doesn't form a film over your wart, so you have to keep the treatment in place using a plaster.<sup>[14]</sup>

As well as using salicylic acid, you should gently rub away the surface of the wart with a file or pumice stone once a week. You may have to use this treatment for about three months.<sup>[14]</sup> For these reasons, some people find salicylic acid treatments difficult to use and slow to work.<sup>[15]</sup>

One big summary of research (a [systematic review](#) ) looked at results from six studies.<sup>[15]</sup> About 6 in 10 people found that their warts cleared up with salicylic acid. People had to use the treatment for six to 12 weeks to get rid of their warts.

However, the study showed that about 4 in 10 of the people who used a dummy treatment (a [placebo](#) ) also found that their warts cleared up.

Studies comparing salicylic acid with [freezing](#) have found different results. So it's not clear which of these treatments works best for most types of warts.<sup>[15]</sup> <sup>[16]</sup> However,

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both treatments seem to work better at clearing warts from the hands than from the sole of the foot (veruccas).<sup>[15]</sup>

Salicylic acid can irritate the skin around your wart.<sup>[15]</sup> This isn't usually serious. Some salicylic acid gels can mark or stain, so be careful not to get them on your clothes or carpets.

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### Treatment to stimulate your immune system

In this section

If your warts are very difficult to treat, then you may be offered a treatment that helps your body's immune system to fight off the wart.<sup>[15]</sup> Doctors paint a substance called dinitrochlorobenzene onto your wart, or inject it into the wart. The idea is to stimulate your immune system to attack the wart.

The problem with this treatment is that, for some people, their immune system doesn't react. Other people have a very strong reaction, and their skin gets badly irritated.<sup>[13]</sup> The treatment is also time consuming. You need to have it painted onto your wart once a week for several weeks.

One review of research found that the warts cleared up for 8 in 10 people who were given this treatment. Warts cleared up for only 4 in 10 people who were given a dummy treatment (a placebo).<sup>[13]</sup> This treatment irritated the skin of about one third of the people in studies. Some had blistering.

This treatment isn't widely available.

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### Having warts frozen off by a doctor

In this section

If you have this treatment, your doctor will freeze the wart for about 10 to 30 seconds using liquid nitrogen. You may need to have the treatment several times, depending on the type of wart you have and where it is on your body.<sup>[17]</sup> Your doctor will use a spray or a cotton wool bud to apply the liquid nitrogen.<sup>[13]</sup>

It's not clear how well this treatment works. Studies on freezing have found different results. One big summary of research (a systematic review) found that freezing warts worked no better than using a cream that didn't contain any medicine (a placebo).<sup>[15]</sup>

But the review found that 'aggressive' treatment (freezing the wart for longer) was more likely to work. It also found that freezing might work better at clearing warts from the hands than from the feet (veruccas).<sup>[15]</sup>

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Freezing can be painful. It can cause blistering and scarring.<sup>[13]</sup> Your doctor might scrape off the top layer of skin with a scalpel before freezing the wart or verruca. This can cause bleeding, and some people find it unpleasant.<sup>[18]</sup>

You can buy freezing treatments over the counter from a pharmacy. Brands include Scholl Freeze Verruca and Wart Remover and Wartner Wart and Verruca Remover. You freeze the wart yourself using a spray containing dimethyl ether and propane. These don't get as cold as the liquid nitrogen that doctors use. And very little research has been done on these treatments. We don't know whether they work, and they can't be prescribed by your doctor.<sup>[13]</sup>

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### Photodynamic treatment

In this section

If you have this treatment, a substance is painted onto your wart that makes it sensitive to light. Light or a laser can then be used to destroy the wart.<sup>[13]</sup>

It's not clear how well this treatment works. One big summary of research (a **systematic review**) found that freezing warts worked no better than using a cream that didn't contain any medicine (a **placebo**).<sup>[15]</sup>

Photodynamic treatment can be painful and cause burning and itching for two days afterwards.

This treatment is normally used to treat cancer. It's not often used to treat warts.

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### Duct tape

In this section

Strange as it might sound, putting duct tape over your wart is sometimes used to try to get rid of warts. You cut a piece of tape to the same size as your wart and stick it over the wart. You leave the tape on for a week. If it falls off, replace it with another piece as soon as you can. Once a week, you take the tape off and rub away the wart with an emery board or pumice stone. You then start again with a new piece of tape.

It's not clear if duct tape works for getting rid of warts. Studies haven't found clear results.<sup>[2]</sup>

Some people in the studies found that the tape irritated their skin. Others found it hard to stop the tape falling off.

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### Pulsed dye laser

In this section



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This treatment uses a laser to burn away the wart. It aims to destroy the small blood vessels inside the wart. A review of studies (called a **systematic review**) found that there wasn't enough evidence to say if this treatment works better than a dummy treatment (**placebo**). Some people find this treatment painful. <sup>[15]</sup>

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### Surgery

In this section

Surgery can remove a wart by cutting it away or burning it. You'll be given a **local anaesthetic** to numb your skin first. Surgery may be used if you have just one wart on your arm, leg, or face. Doctors tend not to use surgery for warts on people's hands and feet. We didn't find any good research to show whether or not surgery works for people with warts.

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### Zinc tablets

In this section

Zinc is a mineral. You get it in the food you eat. For example, red meat contains a lot of zinc. You can also buy zinc supplements, including zinc tablets and tablets you dissolve in a glass of water.

Research suggests that zinc can stimulate (boost) your immune system. And one small study found that zinc can help get rid of warts. But the study was done in a way that means we can't be sure about the results. <sup>[19]</sup>

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### Silver nitrate

In this section

Silver nitrate is a hard substance. It comes as a sort of pencil. You wet it before pressing it against your wart. It is used to kill the cells in the wart. One brand name is Avoca.

One small study suggests that silver nitrate might help clear up warts. But there isn't enough good evidence to say for sure. <sup>[15]</sup>

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## Further informations:

### Glossary:

#### viruses

Viruses are microbes (tiny organisms) that need the cells of humans or other animals to exist. They use the machinery of cells to reproduce. Then they spread to other cells in the body.

#### 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.

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## 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.

## HIV

HIV stands for human immunodeficiency virus. It's the virus that causes AIDS. It makes you ill by damaging cells called CD4 cells. Your body needs these cells to fight infections. You can get HIV by sharing needles for injecting drugs, or by having sex without a condom with someone who has the virus.

## AIDS

AIDS stands for acquired immunodeficiency syndrome. People who are infected with the human immunodeficiency virus (HIV) get AIDS when the virus has destroyed most of their immune system. When people have AIDS, their body isn't able to fight infections. So even common infections, such as colds, can cause serious problems.

## systematic reviews

A systematic review is a thorough look through published research on a particular topic. Only studies that have been carried out to a high standard are included. A systematic review may or may not include a meta-analysis, which is when the results from individual studies are put together.

## 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 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.

## 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.

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