



PLANTAR WARTS (VERRUCAS)

What are the aims of this leaflet?

This leaflet has been written to help you understand more about plantar warts. It tells you what they are, what causes them, what can be done about them, and where you can find out more about them.

What are plantar warts?

Warts are the most common type of skin infection. They are infections of the skin with the human papilloma virus. The term 'plantar warts' is used for those that occur under the feet, as the bottom of your foot is its 'plantar' surface. Sometimes they are known as verrucas.

What causes plantar warts?

There are more than 100 different strains of the human papilloma virus but plantar warts are usually due to types 1, 2, or 4. The virus makes the top layers of skin grow, creating the non-cancerous skin growth that is a wart.

Plantar warts are spread by contact: either directly from person to person or, more often, from virally infected skin scales that have been left on places such as the floors of public locker rooms, and the tiled areas around swimming pools and in showers. The virus is not highly contagious, and it is not clear why some people catch plantar warts while others do not. However moist conditions, and soggy skin on the feet, make it easier to pick one up.

The virus has to get in through tiny breaks in the skin surface to cause an infection. Once in, it may take several months before anything obvious happens and a plantar wart appears. Plantar warts are most common in those who use communal bathing areas and in those who are between the ages of 12 and 16. They are not associated with malignancy.

Are plantar warts hereditary?

No.

What are the symptoms of plantar warts?

Some plantar warts are painful, particularly if they are in a weight-bearing area. It may feel as if you have a stone in your shoe. Mosaic warts (see below) are usually painless.

What do plantar warts look like?

Many plantar warts lie on pressure areas and so they tend to grow inwards, and may appear smaller than they really are. Most have a rough surface that sticks out slightly and is surrounded by a horny collar. Often there are several plantar warts. The term 'mosaic wart' is used when many small plantar warts pack together into a small area.

How will plantar warts be diagnosed?

Usually this is easy, and based simply on the appearance of the area. One helpful point is that plantar warts interrupt the fine skin ridges under the foot. However sometimes it may be hard to tell a plantar wart from a callosity (an area of yellowish skin thickening) or from a corn (which will lie over a pressure point and have a central plug). Your doctor may need to pare the area down to solve this problem. The presence of small blood vessels (showing up as bleeding points, or as tiny dark dots, which are vessels that have clotted) is in favour of a plantar wart. No other investigations are needed.

Can plantar warts be cured?

Yes: but no single treatment can be guaranteed to be effective in every case. For example, in one trial, only 84% of plantar warts cleared in 12 weeks when treated with a salicylic acid preparation. The highest cure rates are in young people who have not had their warts for very long.

Not all plantar warts need to be treated. Many will go away in due course by themselves, so it is often reasonable to leave them alone if they are not causing trouble.

How can plantar warts be treated?

In an ideal world, treatments for plantar warts would get rid of them quickly and painlessly, leave no scar, and allow those who are treated to become immune to the wart virus so that the warts do not come back. In real life, the following facts have to be taken into account:

- Warts often go away by themselves, and when this happens, no scar is left behind. It follows that sometimes it may be sensible to leave a plantar wart alone.
- Wart treatments do not always work, and may be quite time-consuming; but most plantar warts that need to be treated can be dealt with satisfactorily at home or in primary care.
- The most common reason for treating plantar warts is that they are painful; but the more destructive ways of treating plantar warts can be painful too, and can leave a scar - which under the foot can hurt in the long term. This may not be a great gain.

- If treatment is needed, your doctor will usually start with the least painful and destructive measures – especially for children.

Some of the more commonly used treatments are:

- A reasonable start is self-treatment at home with one of the many commercial preparations that contain **salicylic acid**. Before applying these, the plantar wart has to be pared down, or filed with sandpaper or an emery board. Soaking the area in warm water for at least 5 minutes will soften it and help with treatment, which should take place daily, for at least 12 weeks. Treatment should be used every night - to the wart only and not to the surrounding normal skin – but if the area becomes too tender, you should stop treatment for a day or two. The success rate is good for those who keep going.
- Mosaic warts (see above) can be treated with a gel containing **formaldehyde**. If you have large numbers of small plantar warts, it may be worth soaking the whole area for 10 minutes at night in a weak **formaldehyde** solution.
- **Cryotherapy** (freezing the area with liquid nitrogen, using either a cotton wool bud or a spray) may be the next option. A trained nurse, a podiatrist, or your general practitioner can do this, and will pare the wart down before freezing it. Freezing can be combined with the use of a salicylic acid preparation. Cryotherapy has to take place at least once every three weeks to ensure the best cure rate. It is painful, and so is not used often for small children, and may lead to blistering afterwards. If there is no improvement after 7 or 8 freezings, there is little to be gained by going on with this line of treatment.

If plantar warts do not clear with the treatments described above, one of the following techniques may then be considered:

- **Removal under a local anaesthetic**. The usual technique is to scrape the plantar wart away using a sharpened spoon-like instrument (a curette), and then to touch the remaining raw area with a hot point (cautery). However all surgical procedures leave scars and these may be painful under the foot.
- Other possible treatments that specialists may use include injections of bleomycin into the wart, although this is not a licensed treatment for plantar warts. **Laser treatment** is sometimes used for multiple or mosaic plantar warts, or those that have not done well with other treatments. Pain and scarring may follow.

What can I do?

If you have a plantar wart:

- Never try to cut it out or burn it off yourself.
- Wear comfortable shoes that do not press on it. Do not share your shoes or socks with anyone else. Special pads to relieve pressure on plantar warts can be bought at a chemist's shop
- Keep your feet clean and dry, and change your socks daily.

- Do not go barefoot in public places. Plantar warts should be covered with waterproof plasters, or rubber 'verruca socks', if you go swimming.
- Do not pick at your plantar warts. When you pare your plantar wart down, dispose of the dead skin carefully. The sand paper or emery board will also have living wart virus on it – so do not use it for any other purpose, or you may spread the virus.
- If you have children, check their feet periodically.
- Treat any new plantar warts as quickly as possible so they do not have the opportunity of spreading.

Where can I get more information about plantar warts?

Useful information about plantar warts can be found on the following websites:

www.aad.org/pamphlets/warts.html

www.emedicine.com/emerg/topic641.htm

www.emedicinehealth.com/articles/20312-1.asp

www.lib.uiowa.edu/hardin/md/plantarwarts.html

(While every effort has been made to ensure that the information given in this leaflet is accurate, not every treatment will be suitable or effective for every person. Your own doctor will be able to advise in greater detail)

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