

What Are Plantar Warts and How Can You Get Rid of Them?

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STORY AT-A-GLANCE

- › Plantar warts are painful growths on foot soles caused by the human papillomavirus (HPV), affecting 10% to 20% of children and spread easily through direct contact in damp environments like pools
- › Professional treatments for warts include cryotherapy, laser treatment and immunotherapy, but these are usually expensive and painful
- › Salicylic acid is a common over-the-counter treatment that works by peeling away infected skin layers and stimulating immune response, though effectiveness varies based on concentration
- › The duct tape method involves covering warts for five to six consecutive days, with traditional rubber-based adhesive tape producing better results than transparent acrylic-based alternatives
- › Natural remedies include garlic, banana peel, pineapple juice and aloe vera, while prevention involves wearing shoes in public areas and maintaining good hygiene practices

Do you spend a lot of time at the gym or the local pool? Here's one reminder – always wear slippers or shoes in the locker room or shower area. If you don't take precautions, plantar warts could grow on the soles of your foot.

Painful and uncomfortable, plantar warts account for one-third of all skin warts today.¹ While they affect people of all ages, they're more commonly seen in teens or children

who often come in close contact with others;² an estimated 10% to 20% of children today have plantar warts.³ These warts, as well as other types of warts, spread easily, which is why if you see or feel one growing on your foot, you'll want to treat it immediately.

What Are Plantar Warts?

Generally, warts are small noncancerous growths that form on various areas of the body. There are several types, including common warts, flat warts, deep palmoplantar warts and periungual warts. However, plantar warts (*verruca plantaris*) specifically grow on one part of your body – the soles of your feet. These small, round growths appear on the balls or heels of your feet. Plantar warts are usually rough, with black dots – tiny blood clots – in the center.⁴

Plantar warts are caused by the human papillomavirus (HPV), which you can directly or indirectly get from other people. HPV thrives in damp areas; if it enters your body through a tiny cut or crack (such as a small wound) on the bottom of your feet, it causes plantar warts to form.⁵ In a Yahoo News article, Nam Tran, DPM, a Dallas-based podiatrist, explains:⁶

"Both plantar and common warts are caused by the human papillomavirus (HPV). The only differentiation between the two is the location. Plantar wart refers to growths found on the foot, while common warts can appear on any other part of the body."

As noted by Dr. Steven Daveluy, a professor of dermatology at Wayne State University in Detroit, having a plantar wart feels like walking on a pebble with every step.⁷ Since they form on areas of the feet that bear the most pressure, plantar warts could grow inward, causing a callus to appear.

Plantar warts are highly contagious and spread through direct contact. If you touch an active wart and fail to wash your hands before touching other parts of your body or other people, the virus could spread. This is why it's advisable to wear a sock or put a bandage

over the wart to curb its spread.⁸ Aside from young people, those who are immunocompromised are more susceptible to these growths.

Plantar warts usually go away on their own, but it can take months or even years for them to clear up. This is why some people opt to remove them, especially if they're causing discomfort and affecting their day-to-day activities. A range of conventional treatments and holistic options are available to help get rid of these painful and irritating skin growths, which are discussed below.

Cryotherapy and Other Dermatologist-Prescribed Treatments

Most people opt to treat warts at home, but there are those who find the condition embarrassing and end up seeking help from a dermatologist to resolve this issue. According to the American Academy of Dermatology Association (AAD), some of the treatments used for warts removal include:⁹

- **Cryosurgery or cryotherapy** – Liquid nitrogen is applied over the wart, either with a cotton swab or a spray. A numbing solution is applied prior to the treatment, as it's painful. The freezing forms a blister around the wart, killing it. The treatment is repeated every few weeks until the wart is eliminated.¹⁰
- **Cantharidin** – This topical medication is applied over the wart, causing a blister to form. The wart's outer layer is then removed. Multiple sessions are needed for this to work.¹¹
- **Electrosurgery and curettage** – This involves burning off the wart and scraping it off using a sharp instrument. These two procedures are often done together.
- **Laser treatment** – This is used for warts that have not responded to other procedures.
- **Immunotherapy** – It involves the patient's own immune system to fight the warts. A chemical is applied over the wart to trigger a mild allergic reaction, which then prompts the immune system to target the wart.

As you might expect, these treatments are not only invasive and have uncomfortable side effects, but they're also costly. For example, cryotherapy sessions can cost as much as \$610, including the initial checkup and follow-up sessions.¹² This is why many people turn to noninvasive home treatments to get rid of plantar warts (and other types of warts).

Try Using Salicylic Acid

One of the most common home treatment options for plantar warts is salicylic acid, which you can easily get without prescription. Salicylic solutions, gels or pads are readily available in drugstores and must be applied to the wart daily.

Salicylic acid works in two ways – it slowly peels away the layers of the skin that contain the wart and it irritates the wart area, prompting your immune system to respond and eliminate the virus. The AAD advises soaking the wart in warm water prior to applying the salicylic treatment to soften the rough skin.¹³ Here's a step-by-step method for you to follow:¹⁴

1. Soak the wart in warm water for five to 10 minutes.
2. Using a pumice stone or emery board, file the rough surface of the wart.
3. Apply the salicylic treatment to the wart, making sure the entire surface is covered. Avoid getting it on surrounding skin.
4. Wash your hands with soap and water.

Studies have demonstrated that salicylic acid performs better than a placebo in treating warts.¹⁵ Since this is a chemical treatment, there could be side effects, such as mild skin irritation, pain or discoloration.

However, according to Saylee Tulpule, a podiatrist and spokeswoman for the American Podiatric Medical Association, the effectiveness of salicylic acid treatments is "hit-or-miss," as their acid concentration is sometimes not high enough to eliminate the wart.¹⁶ In other cases, the salicylic acid is used incorrectly, or not frequently enough.

The Duct Tape Technique

I've previously written about the positive effects of using [duct tape to treat warts](#), as it is an effective, painless and inexpensive home remedy for this type of skin problem. Also called tape occlusion, this method involves covering the wart with a small piece of duct tape and leaving it on for several days. Follow this procedure:

1. Prepare and apply the duct tape

- Cut a piece of duct tape slightly larger than the wart to ensure complete coverage.
- Apply the duct tape directly over the wart, pressing firmly so it adheres well. Putting a bandage over the tape helps secure it in place.

2. Leave the duct tape in place for six days

- Keep the duct tape on the wart continuously for **six days**.
- If the tape falls off during this period, replace it with a new piece as soon as possible.

3. Remove the duct tape and soak the wart

- After six days, carefully remove the duct tape.
- Soak the affected area in warm water for **10 to 15 minutes** to soften the skin.

4. Gently exfoliate the wart

- Use a pumice stone, emery board, or small piece of sandpaper to gently rub the surface of the wart. This helps remove dead skin cells.

5. Leave the wart uncovered overnight

- Do not reapply duct tape immediately.
- Leave the wart uncovered overnight, approximately **8 to 12 hours**.

6. Reapply the duct tape the next morning

- The following day, apply a new piece of duct tape over the wart.
- Repeat steps 2 through 6 until the wart disappears. This process may take several weeks.

Since plantar warts grow on the sole of your foot, this therapy is highly recommended, as the duct tape will not be disturbed and can be left for a long time. There are many theories as to why this works; some say the duct tape "suffocates" the wart and kills the affected skin cells, while others believe removing the adhesive takes away layers of skin cells, making the wart less bulky.¹⁷

Early studies¹⁸ have supported the effectiveness of duct tape for warts removal, even finding it more efficient than conventional therapies like cryotherapy. However, there are other studies that question its efficacy. For example, in one 2011 study, wherein subjects were treated with either moleskin and transparent duct tape or just moleskin, no statistically significant differences were seen in the two groups.¹⁹

However, we must look at the specifics, and in this case, the type of duct tape used. The issue is that traditional silver duct tape uses a rubber-based adhesive while transparent duct tape, the one used in the 2011 study, uses an acrylic-based glue, affecting its effectiveness. Hence, when using duct tape to remove warts, it is important to use rubber-based adhesive tapes to optimize effectiveness.

Another notable advantage of using duct tape is it has very minor side effects, like local irritation. As mentioned, plantar warts are more common among children and teens, so a minimally invasive treatment like duct tape is more suitable and tolerable for young patients, compared to invasive treatments like cryotherapy that causes lingering pain and blisters, and keep them from completing their sessions.

Other Home Treatments for Plantar Warts

Aside from tape occlusion, the following home remedies for warts are also worth trying. Keep in mind that these are for common warts and plantar warts, and not for genital

warts or those that grow on your face.

Garlic — Crush a clove and rub it directly on the wart. Don't leave the garlic in contact with your skin overnight, though, as it causes a burn. Garlic has antiviral properties that help fight the virus and support your immune system.²⁰

Banana peel — Use the inside of a banana peel to help remove warts. Tape a small piece directly over the wart and leave it for a few days, replacing it with a new peel as needed. Keep doing this until the wart disappears. This could take up to three weeks.²¹

Pineapple juice — Dab the juice directly on the wart or put a small slice of pineapple over it, covering it with a bandage for three to five minutes. Repeat two to three times a day.²²

Aloe vera — Apply aloe vera gel on a cotton ball and place it in direct contact with the wart. Tape it in place and reapply aloe vera every few hours. Do this for a few days until the wart disappears.²³

Castor oil — Dab castor oil over the wart several times a day, and then tape a castor oil-soaked cotton ball over it before you go to sleep. In the morning, file the dead skin away. The beneficial acid in castor oil offers antibacterial and anti-inflammatory effects to help eliminate the wart.²⁴

Apple cider vinegar — Dab ACV on the wart twice a day. It could take a few weeks before the wart is completely removed. The acetic acid in it kills bacteria, while malic acid, an alpha hydroxyl acid, exfoliates your skin naturally.²⁵

Does the HPV Vaccine Prevent Plantar Warts?

In a New York Times article, Daveluy recommends those who are eligible for the HPV vaccine, like Gardasil, to get vaccinated. This is based on limited evidence that the vaccine might "help plantar warts and other wart types clear up more quickly."²⁶

However, the HPV vaccine is only designed to protect against strains that cause genital warts, and not those that cause plantar warts. So, if your only goal in getting vaccinated is to minimize your risk of getting common and plantar warts, then you could be swapping a small, easily avoidable health condition for a host of other more dangerous health issues.

In fact, before the COVID-19 jabs were released, I considered Gardasil to be the most dangerous and unjustifiable vaccine on the market. Its risk-benefit ratio is shocking, and the data shows it. In fact, in the best-case scenario, Gardasil only saved 0.2 per 10,000 lives in the U.S., and 0.6 lives per 10,000 in England. At the same time, it killed at least 4.13 per 10,000 recipients – mostly young people, whose lives were just starting.

What's more, Gardasil is associated with severe side effects such as autoimmune disorders, infertility, and other long-term complications. You can read more about this in my article, "[The HPV Vaccine Tragedy Was a Test Run for COVID-19](#)," where I provide a more in-depth report on this topic.

Tips to Prevent Plantar Warts

The bottom line is, plantar warts are a minor health concern and are entirely preventable. As long as you practice proper hygiene and follow the precautionary measures below, you won't have to worry about getting these uncomfortable growths on your feet:²⁷

If someone has a wart, do not touch it – This is the easiest way to transmit and get the virus.

Always wear flip-flops or pool shoes in shared public areas, like locker rooms, pool areas and communal showers – HPV loves warm, moist environments. If your bare skin is moist and soft, or if you have cracks or wounds on your feet, HPV easily penetrates it. Wearing shoes and flip-flops helps prevent exposure.

Don't share towels, washcloths, razors, socks, nail clippers and other personal items

– This prevents the virus from spreading from one person to another.

Moisturize your skin – Dry, cracked skin allows the HPV virus to penetrate more easily.

Wash your hands frequently – If you have an active wart and are treating it, make sure to wash your hands before and after doing the treatment.

Always clean and cover open wounds, cuts and scrapes – Any open wound is susceptible to HPV.

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