

UNIVERSITY STUDENT HEALTH SERVICES • Fact Sheet

COMMON AND PLANTAR WARTS

WHAT ARE WARTS?

A wart is a non-cancerous skin growth caused by the Human Papillomavirus (HPV). Over 200 HPV subtypes exist; some prefer to infect specific body sites. Warts are not harmful but can be unsightly and occasionally bleed or cause pain. In children, two-thirds of warts will resolve without treatment within 2 years, but resolution can take even longer in adults. The recurrence of warts is common.

This handout will focus specifically on common and plantar warts:

- Common warts can appear anywhere on the body, but are typically found on the fingers, hands, elbows, and knees.
- Plantar warts appear on the soles of the feet and toes. Pressure points where the skin has become thickened can cause pain while walking or running. Plantar warts are typically more difficult to treat because of the thicker skin on the soles of the feet.

For information regarding genital and anal warts, please refer to our “Genital Warts (HPV)” patient brochure.

HOW ARE WARTS SPREAD?

Warts are spread by direct skin-to-skin contact, with injured skin being more prone to infection. HPV infection can also occur without symptoms and still be transmissible to others. The incubation period is typically 2-6 months.

WHAT IS THE TREATMENT?

A variety of treatment options are available. First-line therapies are cryotherapy and topical salicylic acid, which have the most evidence supporting their efficacy.

❖ CRYOTHERAPY (LIQUID NITROGEN)

This first-line treatment uses liquid nitrogen to freeze the wart and activate the body's immune response. Over-the-counter kits can be used for self-treatment, but they are not as potent as the liquid nitrogen available in a medical clinic. Liquid nitrogen should not be used on the face or around fingernails/toenails.

- Cryotherapy administered by a medical provider is repeated every 1-2 weeks until the wart has cleared.
- Common reactions following treatment range from mild redness of the skin to the development of large blisters.
 - If blisters develop, allow them to pop on their own. Open or wet skin should be covered with a bandage. An antibiotic ointment may be applied if desired.
 - Though the risk of infection is low, seek medical attention if you develop significant redness, pain, swelling, drainage, or fever.
- Salicylic acid products can be used at home daily in between liquid nitrogen treatments if desired. This will help remove more layers of skin that may be infected with HPV.

❖ HOME TREATMENTS

- Salicylic Acid Products: These are available over-the-counter in different strengths and forms. Patients with neuropathy (nerve damage causing numbness) should not use salicylic acid. Instructions will vary for each product, so follow the package directions.
 - General Instructions:
 1. Salicylic acid is typically applied to the wart at bedtime.
 2. First wash the site with soap and water.
 3. Soak the area in warm water for 10-20 minutes to soften the skin.
 4. Dry the area completely.

5. You may gently remove any dead skin with a clean nail file or pumice stone if needed. *Clean any tools used on the wart (eg. a nail file or pumice stone) with a bleach-type solution after each use, or use disposable tools.
 6. Apply the liquid or patch to the wart (and a few millimeters of the surrounding skin) and leave on overnight. The liquid can be covered with a bandaid or silver duct tape. If tape is used, you can replace the tape every 48 hours.
- Side effects: It is normal to have mild skin irritation or light bleeding with salicylic acid treatment.
 - Duration: Continue treatment for 1-2 weeks after the wart is gone to ensure complete resolution.
 - Your medical provider may recommend using salicylic acid in conjunction with other wart treatment options (eg. liquid nitrogen, Aldara cream, etc) if needed.
 - **Silver Duct Tape:** Studies are conflicting regarding the effectiveness of this treatment. Silver duct tape is preferred over clear duct tape because it is stickier. Avoid duct tape treatment if you have diabetes, nerve damage, or skin irritation.
 - Instructions:
 1. Follow steps 2-5 as described above for salicylic acid treatment.
 2. Cover the wart with silver duct tape (use a piece about ¼ inch larger than the wart) and leave it in place for 6 days.
 3. After 6 days, remove the tape, wash and soak the wart site, and gently remove dead skin if needed.
 4. Leave the wart uncovered for 1 night, then reapply duct tape for another 6 days.
 5. Replace the tape if it falls off during treatment.
 - Duration: Duct tape treatment may be continued for up to 2 months. Most patients who respond to this treatment have resolution of symptoms within 4 weeks. If no improvement occurs during the first 2 weeks, the treatment is unlikely to be successful.

❖ OTHER PRESCRIPTION TREATMENTS

These treatment options are used for warts that are not responding to first-line therapies. Of this group, topical immunotherapy and fluorouracil have the most evidence for efficacy.

- **Blistering Agents:** These treatments can only be applied by a medical provider.
 - Trichloroacetic acid (TCA) is painful on application and is used primarily on small warts. It may be reapplied every 7-10 days for up to 8 weeks.
 - Cantharidin is often used in children because application is painless; however, blistering and pain will occur within 2-24 hours. It may be reapplied every 3 weeks.
- **Aldara (Imiquimod) 5% Cream:** This cream works by stimulating the immune system.
 - It is typically applied 3 times a week for up to 12 weeks.
 - A small amount of cream is applied to the wart at bedtime (avoid on normal skin) and covered with a bandaid. The cream is washed off with soap and water in the morning.
 - Skin irritation at the treatment site is normal. However, if it becomes too painful, stop treatment until the pain resolves. Then restart the cream at less frequent intervals (eg. 2 times a week).
 - Salicylic acid may be applied to the wart(s) on alternating days (the days you are not using Aldara) if desired.
- **Efudex (5-Fluorouracil) Cream:** This prescription treatment works by inhibiting DNA and RNA synthesis. It is applied to the wart twice a day for 3-12 weeks under the supervision of a dermatologist. Skin irritation is a common side effect.
- **Immunotherapy:** This involves applying or injecting a substance into the wart to trigger an immune response. Treatments are administered by a dermatologist every few weeks.
- **Surgery, Laser, & Other Treatments:** These options are reserved for warts unresponsive to other treatments. They require the care of a dermatologist, podiatrist, or other specialist. Although more research is needed, resolution of warts after administration of the quadrivalent HPV vaccine has been reported.

RECOMMENDED WEBSITES: www.aad.org, medlineplus.gov, www.uptodate.com