COMMON AND PLANTAR WARTS

WHAT ARE WARTS?
A wart is a non-cancerous skin growth caused by the Human Papillomavirus (HPV). Over 100 HPV subtypes exist. Warts affect people of all ages and can grow on all parts of the body. In two-thirds of patients, warts will resolve without treatment within 2 years. However, recurrence is common.

- **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 found on the soles of the feet.
- **Genital and anal warts** are discussed in the handout “Genital Warts (HPV)”.

WHAT TREATMENTS ARE AVAILABLE?

- **Cryotherapy**: This treatment involves freezing the wart with liquid nitrogen to activate your body’s immune response. Over-the-counter kits are options for self-treatment, but they are not as potent as the liquid nitrogen available in a medical clinic. This type of treatment should not be used on the face or around fingernails/toenails.
  - If you see a medical provider for cryotherapy applications, you will be asked to return every 1-2 weeks for repeat treatment until the wart has cleared.
  - Common reactions following treatment range from a mild redness of the skin to the development of large blisters. You may apply Polysporin if desired to the skin after the blisters pop on their own. Cover the area with a bandage if the lesions are open or wet.
  - The risk of infection is low with this treatment. However, you should seek medical attention if you develop significant redness, pain, swelling, or drainage.

- **Blistering Agents**: These treatments can only be applied to the skin by a medical provider. They are typically used if cryotherapy is not effective.
  - **Trichloroacetic acid (TCA)** is painful on application and is used primarily on small warts.
  - **Cantharidin** is often used in children because application is painless; however, blistering and pain occur the following day.

- **Other Topical Treatments**:
  - **Salicylic Acid Products**: These are available over-the-counter in different strengths. Follow the package directions for each specific product. These treatments should not be used on the face or around fingernails/toenails.
    - Salicylic acid can be used in conjunction with cryotherapy. Once the skin has healed from cryotherapy (usually in 4-7 days), salicylic acid should be applied for at least 7 days. This helps to peel off more layers of skin which may still be infected with HPV. You will return to the clinic 2-3 weeks after cryotherapy to determine if more treatment is necessary.
    - Salicylic acid can also be used in conjunction with Aldara cream (see next page).
  - **Aldara (Imiquimod) 5% Cream**: This is a caustic agent that requires a prescription from a medical provider. It is typically reserved for warts that have not responded to other treatments (eg. plantar warts). It is also used for warts that should not be treated with cryotherapy or other blistering agents (eg. warts on your face or around your nails).
  - **Silver Duct Tape**: There are conflicting studies regarding the effectiveness of this treatment. Studies suggest that silver duct tape is more effective than clear duct tape.
■ Cimetidine: This medication, which is more commonly used for heartburn and gastritis, may boost your body’s immune response against HPV. Research on the effectiveness of cimetidine shows contradictory results. It has been used to treat warts that are resistant to other treatments. Treatment regimens can be as long as 3 months.

■ Surgery, Laser, & Other Treatments: These options are reserved for warts unresponsive to typical treatments. They require the care of a dermatologist, podiatrist, or other specialist.

INSTRUCTIONS FOR SALICYLIC ACID AND/OR ALDARA TREATMENTS
1. At bedtime, wash the wart site with soap and water. Then soak the site in warm water for 10-20 minutes to soften the skin.
2. Gently abrade the wart with a pumice stone or an emery board (if using a paper emery board, use the flat white side and not the rough orange side). Clean the pumice stone or the emery board with a bleach-type solution after each use.
3. Thoroughly dry the wart site.
4. When using salicylic acid, follow the package directions. In general, you will want to apply the product to the wart(s) and a few millimeters of the surrounding skin. If you are using a wart plaster or patch, secure it in place with duct or athletic tape. Keep the area dry for 48-72 hours (if the site becomes wet, you will need to reapply the product). Repeat steps 1-4. Continue treatment for 1-2 weeks after the wart is gone to decrease the risk of recurrence.
5. When using Aldara cream, apply a small amount to the wart(s) at bedtime and cover with a bandaid or duct tape. Wash the cream off in the morning with soap and water. This treatment is used 3 times a week (eg. MWF), for a maximum of 16 weeks.
   • You may apply salicylic acid to the wart(s) on alternating days (ie. the days you are not using Aldara).
   • Avoid applying Aldara to healthy skin. You can use a toothpick for more exact application on small warts. Avoid puncturing the skin.
   • If the wart site becomes painful, stop treatment until the pain resolves. Then restart Aldara at less frequent intervals (eg. every 3-4 nights).

INSTRUCTIONS FOR SILVER DUCT TAPE TREATMENT
The Night Before:
1. Wash the wart site with soap and water. Soak the wart site in warm water to soften the skin.
2. Gently abrade the wart with a pumice stone or an emery board (if using a paper emery board, use the flat white side and not the rough orange side). Clean the pumice stone or emery board with a bleach-type solution after each use.
3. Apply Vaseline petroleum jelly or another cream to soften the wart overnight.
The Next Morning:
1. Wash off the residual petroleum jelly or cream.
2. Thoroughly dry the wart site.
3. Cut a piece of silver duct tape to a size ¼ inch larger than the actual wart. Apply the tape directly to the wart, and leave it in place for 6 days. Replace it if it falls off.
Continuing Care:
1. After 6 days, remove the tape. Gently remove the wart material if it pulls away with the tape. You can cut the wart that has pulled away, but do not cut the healthy skin. Do not rip or tear the wart – you may spread the virus if you do this.
2. After removing the tape, soak the wart and gently rub the area with a pumice stone or emery board as instructed above.
3. Leave the wart uncovered overnight.
4. Apply a new piece of duct tape to the wart the next morning. Leave it in place for 6 days.
5. Repeat this process every week until the wart resolves or for a maximum of 2 months.