

Management of Warts

Common warts and plantar warts will be the focus of this chart.

What are warts?	<ul style="list-style-type: none">• Warts are caused by infection of the keratinocytes by human papillomavirus (HPV) – not the version prevented by the HPV vaccine – most often on the hands and feet. They can sometimes be on the face and other areas, and are more commonly seen in children.• Common warts are skin-colored (or occasionally darker) papules with a rough surface.• Plantar warts are found on the soles of feet and often look like very thick callouses. They can be clustered, painful (feel like pebbles in your shoe), can have black dots, and are typically harder to treat than common warts.• Warts are a thickening of the epidermis and hyperkeratinization.• The virus likely enters the skin through small lesions or cuts on the skin.• Risk factors for warts include communal showers, occupational handling of meat, immunosuppression, etc.
What should patients know about warts?	<ul style="list-style-type: none">• Warts are contagious. The HPV virus can spread by direct contact or by touching contaminated objects (e.g., a towel, fingers, etc.)• To help prevent the spread of warts:<ul style="list-style-type: none">◦ Do not pick, scratch, or touch warts.◦ Wear flip-flops or other shoes in public spaces (pools, locker room showers, etc.)◦ Keep plantar warts dry. Moisture can increase the spread of warts.• Warts are benign and don't necessarily need to be treated, however:<ul style="list-style-type: none">◦ Many patients consider warts unsightly or find them uncomfortable/annoying.◦ Early treatment usually offers best results.◦ Not treating warts increases the risk of them spreading.• Warts often disappear without treatment, but the resolution time can be unpredictable. It may take a few months to two years for warts to go away in children, and may take longer in adults (up to five to ten years).• Warts can be difficult to treat. Patients must be persistent in their treatment as it can take months of regular treatment before the warts disappear.
What is the usual first-line treatment for common and plantar warts? <i>Continued....</i>	<ul style="list-style-type: none">• Many patients will need to try several treatments or combinations of treatments before the warts resolve.• Prior to topical treatments:<ul style="list-style-type: none">◦ Patients should soften the wart by soaking it in warm water for five to ten minutes.◦ After soaking, an emery board or sandpaper should be used to gently remove the upper layers of the wart.<ul style="list-style-type: none">▪ This removes the dead skin from the surface to help topical treatments better penetrate the wart.▪ Do not reuse the emery board or sandpaper as that can spread the wart.▪ Avoid pumice stones and similar tools unless they are disposable.▪ Protect the surrounding skin during the process to prevent the wart from spreading.• Patients should be referred to their prescribers if the wart is:<ul style="list-style-type: none">◦ Painful, itchy, burning, or bleeding.◦ Quickly multiplying.◦ Resistant to over-the-counter (OTC) treatments.◦ On the face.◦ In a patient who is immunocompromised or has diabetes.

First-line treatment, continued	<ul style="list-style-type: none"> • Salicylic acid and cryotherapy damage or destroy the infected skin, which is thought to induce an immune response that helps to clear the virus and the wart. <p>Topical salicylic acid (<i>Dr. Scholls, Clear Away, WartStick, Compound W, Duofilm</i>, etc)</p> <ul style="list-style-type: none"> • Concentrations typically vary from 17% to 40%. Higher concentrations are used on thicker skin (e.g., soles of the feet), while lower concentrations are applied to more sensitive skin. • Apply directly to dry wart twice daily, once daily, or every other day; depending on the product instructions. • Check product labeling for age recommendations as they do vary between products. • It may take weeks of treatment to clear the wart. If warts are still present after 12 weeks of treatment, patients should see their PCP. • Reduce the frequency of application if the treatment site becomes painful. • Can cause irritation. Avoid if you have neuropathy or foot ulcers. <p>Cryotherapy</p> <ul style="list-style-type: none"> • Cryotherapy is the application of intense cold, by spray or cotton-tip applicator, directly to the wart. <ul style="list-style-type: none"> ◦ Five to 30 second application, done every two or three weeks until the wart clears (for up to six treatments). ◦ Some kits contain compressed-gas devices with propane and/or dimethyl ether (e.g., <i>Compound W Freeze Off Advanced, Wartner</i> [U.S.], <i>Wart Freeze</i> [Canada], etc.) ◦ Other kits have a pen device containing nitrous oxide (e.g., <i>Compound W Nitrofreeze</i> [U.S.], <i>FreezPen</i>, etc.). ◦ Patients should adhere to the instructions included on the product they purchase. • Do not use over joints due to risk of joint necrosis. Use caution when applying near nails, tendons, and nerves due to the risk of nerve or tendon damage, or nail dystrophy. • Can be painful and may cause blistering. Adverse effects increase with longer, more frequent applications. Healing takes four to seven days and may cause scarring. • Hyper- or hypo-pigmentation may occur at the application site, particularly with darker skin.
What non-pharmaceutical remedies or supplements are used to treat warts?	<p>Duct Tape</p> <ul style="list-style-type: none"> • May work by peeling away layers of the wart, irritating the wart, and raising the skin temperature to inhibit the virus. • Applied over the wart and/or topical therapies. Change with the topical med, or every three to six days if used alone. <p>Zinc</p> <ul style="list-style-type: none"> • Topical zinc oxide 20% ointment, applied twice daily, has been used to treat warts. Cure rate of 11% has been reported. <p>There are various supplements and herbal products (topical and oral) marketed for wart treatment. These remedies lack evidence and are therefore not recommended.</p>