

# ADVANCED DERMATOLOGY CARE

## WART INFORMATION SHEET

**WARTS:** Warts are caused by a viral infection of the upper layer of the skin. They can spread to other areas on the body and to other people. There are several types of warts that can develop on the skin, and all of them can spread. Spreading may be more likely if they are picked or bitten or if the skin in the area is irritated (e.g., from eczema, dry skin, wart treatment). Warts may develop several months after the initial contact, so it may be difficult to identify from whom or where they were contracted. It is not known if one can get warts from contaminated towels, a locker room floor, school desks, or other, non-living items, though it does seem as if these are ways they can be transferred. Some people are more susceptible than others to developing warts because their immune systems do not seem to recognize the virus as well as the other people's immune systems. Other factors that leave a person more susceptible to contracting a wart infection include: having: traumatized or broken down in a way that allows the virus to invade; frequent exposure to a large number of warts; a depressed immune system due to medications (e.g., organ transplant recipients); or, a depressed immune system due to other viral infections (e.g. *AIDS*).

**TREATMENT:** Warts in children will occasionally disappear without treatment. This may take several months to several years. As a rule, there is no major problem with having such a viral infection. However, since warts can spread to other areas of the body or to other people, and can be unsightly and uncomfortable in certain locations, we generally treat them. Adults are less likely to experience spontaneous resolution of their warts and generally require treatment of them.

There are many methods to treat warts and, unfortunately, no single method exists which effectively treats all warts all of the time. Over-the-counter acid treatments, cause very little discomfort but they require consistent daily treatment for several weeks to several months to eradicate warts. This method works by peeling the wart infected tissue off your skin. However, it can occasionally peel and irritate non-infected tissue as well and allow the virus to spread into that area.

Prescription chemotherapeutic medication can be utilized to poison the virus so that it does not grow as readily. This treatment is the least painful, but requires diligence and patience since it may take months to work. People can be allergic to this chemotherapeutic medication and it must be discontinued if redness, swelling and irritation develop with its use. It can also make the treatment area more likely to get sunburn, so sunscreens should be used when the area is exposed to the sun. If pregnant, birth defects are also a potential risk, but rare.

There are some blistering medications that can be applied to the skin. These medications do not hurt upon application, but several hours after applying them they can kill the skin and lead to scabbing, crusting or blistering. Some people can get significantly large and painful blisters with these medications, while others have very little or no blistering reaction. This treatment generally works well for children because there is no discomfort when it is applied.

Liquid nitrogen is the most commonly used method to kill warts. This is a cold spray that is more than 270 degrees Fahrenheit below zero, so it stings when applied. It can also cause a crust or blister. We use liquid nitrogen frequently because it rarely causes scarring. Sometimes we will use this in addition to the blistering medication. The two medications sometimes work better together than separately.

Pulsed-dye Laser is a device that uses light energy that is specifically absorbed by blood and blood vessels. It is not likely to cause scarring. When used on warts, it destroys the blood vessels that supply the warts, causing the wart to die. The laser treatment feels like an intense rubber-band snap or splattering of hot grease. The pulsed-dye laser treatments are available at the **ADC**.

Candida Antigen injections are a non-FDA approved treatment for warts which has been used with success over the past decade. Like other wart treatments it is approximately 70% effective and may require several treatments spaced out every 3 weeks. There is some discomfort with the needle poke and injections, but most tolerate it very well. Only a few warts are injected and warts distant to the injection sites tend to clear at the same rate. This is a nice alternative when liquid nitrogen or laser is too painful and many sites are present. Side effects are: injection site redness, pain, flu-like symptoms, and rare tissue necrosis.

A more aggressive approach involves using a local anesthetic and excising or 'scoping out' the wart, and then using cautery, liquid nitrogen, to treat the base of the wart. This is especially helpful for warts on the bottom of the foot. This is a more aggressive technique, and has a slightly higher cure rate than other techniques, but can be more uncomfortable and more likely to get an infection and/or cause scarring. One cannot go swimming for one to two weeks after this treatment.

Other techniques that are occasionally used for very persistent warts are burning, immunotherapy, oral medications that cause peeling of the skin or stimulate the immune system, or laser treatment.

All treatment modalities are between 60% and 70% effective, so we frequently need to combine several techniques to eradicate the warts. Sometimes it can take many treatments over weeks or months or years to eradicate the warts. The greater the number of warts and the longer the warts have been present, the more difficult it may be to eradicate them. Warts around the fingernails and soles of the feet are especially difficult to remove. Warts around the fingernails are difficult because they can be buried underneath the nail and protected from treatment. Sometimes, removal of part or the entire nail is required in order to treat the warts. Plantar warts are difficult to treat because most of the wart has been pushed deep into the skin.

Since there is no one method that works significantly better than another for treatment of warts, we will discuss with you the advantages and disadvantages of each technique to try and determine the method or method(s) that might be the most helpful for you. You need to be aware that, half of the time that we believe a wart is gone, it may recur. It may recur because, although we could not see it without a microscope, part of the wart was not completely eradicated. Warts may also recur because of re-infection through re-exposure to other warts. If you believe you have a wart, it is best to have it confirmed by your health care provider. Occasionally, a different kind of skin growth may be present and you might end up treating something more serious as if it were a wart, delaying appropriate therapy. When dealing with warts, you need to be patient and willing to work with your health care provider to help eradicate warts from your skin. Any of the above techniques can cause pain, scarring, infection, swelling, bleeding, numbness, color changes, open sores, and spread of the virus, but, overall, the complications are usually minimal and treatment is well tolerated.