

WARTS & MOLLUSCUM CONTAGIOSUM

What are warts?

Warts are viral infections of the outer layer of the skin caused by the *human papilloma virus (HPV)*. Warts are more common in children because children have less developed immune systems than adults. Most people develop only a few warts, but, in some cases warts become large and cover many areas of the body. Warts are contagious but contrary to popular myth they are not spread by frogs. Scratching, picking or shaving over warts may cause them to spread. To date, more than 100 different antigenic strains of wart virus (HPV) have been described. A few of these strains are known to cause cancer. **If your wart doesn't respond to treatment in a reasonable amount of time it may require a biopsy to rule out cancer.**

Kinds of warts

Warts can be classified based on location and clinical appearance.

- **Common warts** – Fingers, hands, palms, legs and face are the most common areas for warts to develop. They may be called “seed” warts because blood vessels in the wart look like black dots or “seeds” or they may have fronds that dangle like a palm tree.
- **Plantar warts** – Deep warts may develop on the sole of the foot. They can be painful and cause difficulty walking. There is no truth to the myth that warts develop roots that grow around the bone or spread through the blood. Warts are confined to the skin.
- **Flat warts** – These small flesh colored bumps tend to grow quickly and may spread across the face, arms or legs.
- **Genital warts** – Pink to brown growths can develop in the genital area. Symptoms can range from mild itching and burning to nothing. Genital (venereal) warts are spread by sexual intimate contact. Some genital warts may lead to cancer so the HPV vaccine may be an option.

What are molluscum contagiosum?

Molluscum contagiosum are small shiny bumps caused by a virus in the pox family. They are common in small children especially those who have dry skin or eczema but can occur at any age. Treatment is needed if lesions fail to resolve spontaneously.

Treatment of warts and molluscum

Most of the warts that occur in childhood will eventually disappear if untreated; however this is not true for all warts. There is no perfect treatment for warts. Different locations and different types require different methods of therapy. Dr. Sekula Gibbs will usually discuss options with you and come to a mutual decision over the type of therapy best suited for a particular wart.

Because warts are caused by a virus, they can always recur. There is no perfect treatment and no way to guarantee that a treatment will not cause a scar. Your own immune system will determine the success or failure of any therapy.

Liquid Nitrogen

Liquid nitrogen (-195.8° Centigrade) freezes the wart and the surrounding superficial skin into a solid ice ball for several minutes. It is quite effective and well tolerated in most body areas, but may cause severe discomfort around the fingernails, toenails, and on the sole of the foot. Several hours after freezing, a blister forms between the wart and the deeper skin. The blister may be filled with clear fluid and may be pierced with a sterile needle. Draining the fluid may relieve discomfort in the area of the blister. If discomfort persists, acetaminophen (Tylenol) will help. Clean with hydrogen peroxide two times a day and apply Polysporin ointment. If the treatment has been effective, the wart will disappear within 2-3 weeks. In some instances, the wart may recur or fail to respond after the initial treatment with liquid nitrogen. A second or third treatment may be necessary at 2-4 week intervals.

Cantharidin

Cantharidin is an extract from the dried blister beetle. The medicine is applied to the wart, allowed to dry and covered with tape for 4-24 hours. When used for molluscum contagiosum tape may not be required. The medicine should be washed off if the area begins to hurt. Cantharidin blisters may be **painful, large, ugly, black or pus filled and have a red halo**. Draining the fluid may be helpful. Carefully discard the blister fluid as it may contain virus particles. Cantharidin rarely scars but it may cause red streaks to develop. Although this is usually just an inflammatory response and not a sign of infection, please contact Dr. Sekula Gibbs to determine if you should be seen or an antibiotic given. Occasionally, cantharidin will produce a doughnut wart, a central clear zone surrounded by a ring of new warts. These new warts are very frustrating but should be treated again.

A prescription for a pain reliever may be given at the time of treatment. Use it if regular strength Tylenol does not relieve the discomfort. As with liquid nitrogen, warts may recur after treatment with cantharidin and multiple treatments may be necessary.

Imiquimod

Imiquimod (Aldara) is an immune system booster available in a 5% cream that is FDA-approved for the treatment of genital warts, actinic keratoses (pre-cancers of the skin) and superficial basal cell carcinomas (common skin cancers). When combined with liquid nitrogen, salicylic acid or occlusion imiquimod may be useful for common and plantar warts. One study revealed that imiquimod 5% cream eliminated 53% of molluscum contagiosum when applied 5 days per week for 16 weeks (Syed, Br J Dermatol 2000;143:1026-31) Another study showed a clearance rate of 82% when imiquimod 1% cream was applied 3 times a day for 5 days a week for 4 weeks (Hengge, J Dermatol 1998;25:309-13).

Candida and Mumps Antigen

Candida and mumps antigens are FDA-approved drugs used in skin testing that have been used off-label to make warts disappear. After topical anesthesia with cream or a cold spray, the medicine is injected directly into the wart. Multiple treatments at two-week intervals may be necessary. This therapy is usually reserved for resistant warts that fail other treatments.

Salicylic acid

Salicylic acid is a beta hydroxy acid available in a paste, pad (Mediplast) or solution form. It is **applied directly to the wart by the patient**. The wart should be soaked for 10 minutes in warm water and the surface of the wart should be abraded with a pumice stone or a file. Alternatively, apply salicylic acid after showering or bathing. The salicylic acid is applied directly over the wart without contacting the normal skin. If using a paste or solution the area should be dried completely (a hair dryer or fanning with paper may help). If using Mediplast, cut the pad to fit over the wart and then apply tape. The next morning, the tape is removed. This treatment may require several months to be effective. Salicylic acid is **useful in children but not recommended for pregnant women** because of a slight risk of birth defects. Topical salicylic acid under occlusive dressing can potentially increase the risk of systemic toxicity and teratogenic (birth defect) risk.

Trichloroacetic acid (TCA)

Trichloroacetic acid is a caustic acid that is used to destroy superficial skin tumors and warts. If used on soft mucosal skin it is applied directly to the wart in the office and washed off at home 3 hours later. If used on thick foot or hand skin. It should be washed off in 6 hours. If severe pain occurs wash off immediately. Trichloroacetic acid may erode deeply into the tissues, causing serious ulceration. As with other wart treatments, multiple treatments may be

necessary. Trichloroacetic acid (TCA) can be used in pregnant women. (Wolvertson, *Comprehensive Dermatologic Drug Therapy*, 2nd edition, pg 578,

Electrodessication

After the wart is anesthetized with an injection of lidocaine, an electric needle is used to burn it, followed by scraping with a sharp instrument called a curette. The wound should be cleansed twice a day with hydrogen peroxide followed by an application of antibiotic ointment. Electrodessication may leave a scar and the wart may recur, requiring repeat treatments.

Bleomycin

Bleomycin is an anti-cancer medicine that is used in the off-label treatment of difficult and resistant warts. After topical anesthesia with cream or a cold spray, the medicine is injected directly into the wart. Multiple treatments at two-week intervals may be necessary. A black scab will develop that may be pared away. Bleomycin can be painful and an analgesic may be required both during and for several days after treatment. Some patients have experienced persistent finger pain, scarring and intolerance to cold after bleomycin therapy. **Bleomycin is typically not used in pregnant women, children and patients with immune suppression or vascular disease.**

Podophyllin

Podophyllin is an extract of the May-apple plant that is toxic to rapidly growing cells. It is predominantly used in genital warts called condyloma but may be used in common warts in combination with other treatments. The medicine is applied in the office and **washed off by the patient in 4- to 8 hours**. It should be washed off immediately if burning or pain develops. Multiple treatments at two-week intervals may be necessary. Sexual partners should be checked for warts. Cervical, vaginal, and penile cancer can develop in people harboring the HPV virus. A **self-applied extract of podophyllin called Condylox 0,5%** may be applied 2 times a day for 3 days, then skip 4 days for 4 weekly cycles. **Doctor applied podophyllin is contraindicated in pregnancy but Condylox (FDA Pregnancy Category C) may be used with approval of the patients' obstetrician.** The patient should be reevaluated to determine if treatment has been adequate.

5-Fluorouracil (5-FU)

Daily or 3 times a week application of this anti-cancer cream may help eradicate warts and molluscum. It can cause irritation and is not used in pregnant women or children.