



No, you didn't touch a frog! We now know that most warts start with a virus in the papilloma virus family. More warts are found in Caucasians in their early teen years. Most go away on their own, but it can take several years. We haven't been able to pass them from one person to another, however.

The fact that many wart-causing viruses are around all the time makes us wonder what part of our immune system breaks down to let the wart grow.

Taking a wart off is easy. The tricky part is making sure it doesn't come back while at the same time minimizing trauma to the skin. A scar might be inevitable if we cut or "burn" or freeze it off. The wart stays in the epidermis, which is why they never scar if we just wait for them to go away (or use duct tape)! If we can stay out of the dermis while removing them, we can avoid a scar, but of course we will risk leaving some wart behind.

We can use a very cold liquid (liquid nitrogen) to damage the wart and cause it to peel off. Sometimes we overlap with some healthy skin and since the bottom of the wart can't be seen while we do this we may not get all the way to the bottom of the wart. We can give you a prescription for podofylox (*Condylox*) or you can use over the counter *Compound W* (salicylic acid) and put the liquid or gel on the wart and every few days peel a little off. By checking carefully after each "peel" you can see when the wart is gone. The epidermis is smoother than the wart that can be compared to bunched-up toothbrush bristles. If you see little black speckles, those are the wart's blood vessels and you need to go deeper. Another pricey treatment called imiquimod (*Aldara*) modulates the immune system to help get rid of the virus, and this has had some success as well, with topical application 3 days a week for 2-12 weeks. All of them require time and persistence.

Above all, wart treatments require patience. How well wart treatments work is another matter. Warts can appear and disappear without an identifiable cause and may disappear on their own without treatment. Some warts sprout offshoots near the main wart, and others don't. Some hurt, and others are painless. Certain warts, even of the same type, respond to treatment, while others (even on the same person at the same time) don't. All treatment methods often require many sessions over weeks, months, or longer to succeed.

The human papilloma virus (HPV) is found in some warts, over 100 different "serotypes" each cause their own characteristic types of warts. The Gardasil vaccine does not protect against the strains that cause common warts. Someday we might have a "common wart" serotype vaccine, but don't hold your breath.

Alternate treatments exist, like the folk cure of putting the affected area in a bucket of hot water for 15 minutes every day. That is based on the premise that the HPV virus likes the cool temperature of the skin, and goes away if exposed to hot temperatures. Sometimes we use this if there are a lot of warts on an affected limb. Or garlic rubbed on the warts might stimulate the body's immune system to eliminate the wart. Covering 24/7 with duct tape is another alternative treatment, but keeping it covered that continuously is challenging.

The dermatologist has other fancier treatments with irritating chemicals and shots directly into the warts. Warts that are underneath nails sometimes need the dermatologist's expertise as well.



Revised TSG 2017