

# A New Medical Breakthrough: Wart to do when *Verruca vulgaris* Attacks

by **Jennifer DeMichele, Cornell University**

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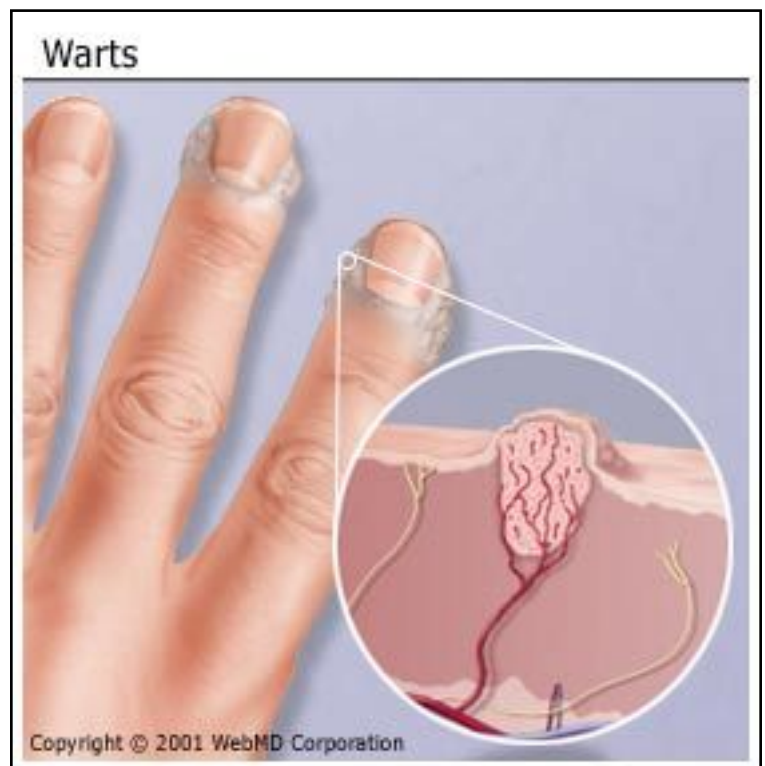
It lives where most life does not... enduring and proliferating. It wreaks havoc in the cracks and crevasses of the skin and other mucous membranes, often causing discomfort and cosmetic embarrassment.

As obdurate and unsightly as its name, *Verruca vulgaris*, the common wart inconveniently finds temporary niches on thousands of people, many of whom avoid revealing its unwelcome existence (see Figure 1).

## The common wart removal experience

For most people, especially children and teenagers, revealing that a wart has invaded and colonized a part of their body has often meant subjection to painful cryotherapy - the removal of warts by freezing them with liquid nitrogen.

Mandy Redig, a JYI science journalist and student at Arizona University, remembers, (yet wishes she could forget), her wart removal experience at the age of six. Redig claims she had a sadistic doctor who scraped her two warts till they bled, then poured liquid nitrogen all over them. "I screamed and screamed. It was horrible," she says.



**Figure 1.** Warts affect three out of every four people, making them the most common dermatological complaint after acne. **Courtesy of** WebMD, [Hunterdon Healthcare System.](#))

## A less painful and invasive therapy for wart removal

Now six-year olds and the many other patients who are afflicted with the common wart, caused by human papillomaviruses, can be spared nightmarish experiences like Redig's. Researchers at the Madigan Army Medical Center in Tacoma, Wash., have discovered a less painful and invasive therapy for wart removal.

Neither abrasive liquid chemicals that attack chemically sensitive nociceptors, (pain receptors embedded the skin), nor time consuming and costly dermatologist visits are needed. Rather, as reported in the October 2002 issue of the *Archives of Pediatrics & Adolescent Medicine*, all that is needed to remove the common wart are a few pieces of household duct tape, a small pumice stone, and one to two months of patience.

Who would have thought that duct tape, invented during WWII by Johnson & Johnson to keep moisture out of ammunition cases, would one day be used to therapeutically remove the common wart? Already one of the most versatile tools in the household, duct tape can now add wart removal to its ever-expanding résumé.

Dr. Dean R. Focht III of the Cincinnati Children's Hospital Medical Center and principal researcher for the study says duct tape irritated the warts, apparently causing an immune system reaction that attacked the growths.

### Three-ply construction



**Figure 2.** Duct tape is composed of three layers. A layer of fabric mesh (2) is enveloped by a layer of rubber-based adhesive (1) and a layer of polyethylene plastic (3). **Courtesy of [Duct Tape Guys](#).**

The effectiveness of duct tape could possibly stem from its three-ply construction. [The Great Fact Finder website](#) shows that duct tape is composed of three layers (see Figure 2). The top layer is a resilient plastic (polyethylene). The bottom layer is a rubber-based adhesive, and in between is a layer of fabric mesh. Yet whether it is the actual composition of the tape or its mere application to the wart, the use of duct tape, (termed duct tape occlusion therapy) has a higher success rate for wart removal than cryotherapy. In Focht's study, 85% patients ranging from 3 to 22 years of age who underwent duct tape occlusion therapy had complete "resolution of the warts," compared to only 60% patients undergoing cryotherapy. With such a high success rate, unaccompanied by burning, itching, and sometimes indescribable pain, duct tape would seem to have a promising future as the preferred method of treatment to remove the common wart.

### Occlusion therapy

My sister Christina DeMichele, a recent Boston College graduate, would never have undergone cryotherapy if she'd known that duct tape occlusion therapy existed. The liquid nitrogen applied to the warts on her knee first caused blisters two to three times the size of the wart. Then the warts turned a disgusting blackish-brownish color and throbbed. "The nights I came home from the

dermatologist, I knew I was not going to get any sleep. It was impossible to ignore the pain," she says.

Now all she would have to do is apply duct tape, rub the wart-infected area with a pumice stone, and repeat until the warts disappeared. (See side bar for step-by-step instructions). Occlusion therapy may save people the time and expense of dermatologist visits, as well as avoiding a treatment that tests, if not surpasses, their tolerance for pain.

## Other home remedies for the common wart

Yet, besides duct tape, other home remedies for the common wart are ubiquitous, albeit unscientifically tested. The common wart historically has had a negative connotation - often associated with witches and toads - so people have long sought methods to contain or destroy these benign, yet aesthetically unpleasing, growths.

According to the [Recipe Goldmine website](#), a vitamin E bath with a bandage works wonders, as do crushed garlic cloves. According to Food Folklore, cutting an apple into as many pieces as there are warts, rubbing each piece on a wart and then burying it in the earth cures the affliction. As unlikely as these cures and countless others may seem, they might be worth a try. Why? Prior to the release of the *Archives* study and duct tape's new claim to fame, the *British Journal of Medicine* published in August 2002 a systematic review of folk treatments for cutaneous warts. It showed that, apart from topical treatments containing salicylic acid, there is no clear evidence that any treatments for warts are effective. In addition, the reviewers found no clear evidence that any of the medical treatments, (including cryotherapy) have higher cure rates or fewer side effects than the folk remedies.

## Beyond painful cryotherapy

Consequently, when it comes to treatment of the common wart, duct tape and other home remedies may unexpectedly usurp the chemical and drug-based wart treatments of Western medicine. Until dermatologists can determine why some people get warts and others do not, or why some people can fight warts off without any treatment, while others need multiple treatments, (as Redig and my sister did), there's no reason for people to subject themselves to rounds of cryotherapy.

Rather, as the *Archives* recent study indicates, people can simply visit their tool kit or kitchen drawer and find that reliable, gray roll of tape. Soon this super tape may adorn not only their kitchen appliances and broken ceramic dishes, but also their knees, fingers, and toes.

### Duct Tape Occlusion Therapy: Removal of the Common Wart (*Verruca vulgaris*)

- Cut a piece of duct tape as close to the size of the wart as possible.
- Leave on for six days.
- If the original piece of duct tape falls off, immediately replace with more duct tape.
- At the end of six days, remove the tape, soak the area in water, and then gently rub the wart with an emery board or pumice stone.
- Leave tape off for overnight, and then reapply the next morning.
- Repeat until the wart(s) disappear (maximum 2 months).

## Suggested Reading

American Academy of Dermatology: Public Resources

<http://www.aad.org/pamphlets/warts.html>

Colorado Health Site. [http://www.coloradohealthsite.org/CHNReports/warts\\_ducttape.html](http://www.coloradohealthsite.org/CHNReports/warts_ducttape.html).  
[2003](#)

The Dermatology Channel [http://www.dermatologychannel.net/viral\\_infection/warts.shtml](http://www.dermatologychannel.net/viral_infection/warts.shtml)

Duck Products.com <http://www.duckproducts.com/>

Duct Tape Headline News: <http://www.octanecreative.com/ducttape/dtnews.html>

Focht DR 3rd, Spicer C, Fairchok MP. The efficacy of duct tape vs. cryotherapy in the treatment of verruca vulgaris (the common wart). Arch Pediatr Adolesc Med. 2002 Oct; 156(10):971-4.

Gibbs S, Harvey I, Sterling J, Stark R. Local treatments for cutaneous warts: systematic review. BMJ. 2002 Aug; 325(7362):461.

The Great Idea Finder. <http://www.idealfinder.com/history/inventions/ducttape.htm>. May 29, 2002.

Medline Plus Wart Information website at: <http://www.nlm.nih.gov/medlineplus/warts.html>

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