Title: How do I get rid of this wart?!

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Abstract: Warts are a common infection affecting millions of people worldwide. Many patients wonder what treatment method offers the most effective elimination of warts. Recently, there has been excitement about the introduction of Pulsed-Dye Laser Therapy as a "magic bullet" to treat common warts, but it appears that the newer therapy offers little advantage over traditional modalities. Although no best treatment has yet to emerge, there is a reasonable approach to treat warts, starting with more conservative, conventional treatments then moving to more expensive, radical measures for recalcitrant lesions.

This document was created by a medical student enrolled in the Primary Care Clerkship at the University of Minnesota Medical School as part of the course project. The aim of the project is to present information on a medical topic in the format of a patient education handout. It does not necessarily reflect the views of the University of Minnesota Medical School physicians and faculty. These materials are provided for informational purposes only and are in no way intended to take the place of the advice and recommendations of your personal health care provider. The information provided may no longer be up to date since it has not been reviewed since the date of creation. The information provided should not be used to diagnose a health problem or disease, or as a means of determining treatment. In the event of a medical emergency, immediately contact a doctor or call 911.

How do I get rid of this wart?!

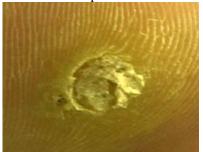
-What is a wart, anyway? A wart is a localized viral infection of the top layer of skin. The medical term for the wart virus is Human Papilloma Virus.

#### Where do warts grow?

Warts can affect anywhere there is skin or mucosal tissue. However, most warts are found on hands, feet and faces.

What do warts look like?

Warts can have many different appearances depending on where they grow on the human body. They are usually skin-colored and rough, but can be different colors and textures. Warts on the feet tend to grow inward so they are usually flat with the skin. Warts on hands and other places tend to be raised.



# Photo of a common wart How do you get a wart?

Most experts believe that the wart virus is acquired through contact with the environment. The virus lives in dirt, on skin and other damp places. If there is a small cut or irritation in a person's skin, the virus can get into the skin and cause infection at that site.

## Can I pass a wart to another person?

Contacting a wart on another person's skin makes someone more likely to become infected, but touching a wart does not mean that infection is certain. It is best to use caution when contacting warts with the face or other sensitive areas.

## Why do I keep getting warts over and over again?

Some people are more likely to get warts more often than others – just like some people catch colds more frequently. Other things that make a person more likely to get warts include

poor hygiene, cracked or cut skin, picking at fingernail beds or having a poor immune system.

#### Are there different kinds of warts?

There are many different strains of wart virus, but they are all basically similar. Some types tend to affect different parts of the body. **Common Warts** often affect the hands. **Plantar Warts** affect the bottom of the feet. **Flat Warts** often are found on the face or elbows. Warts found on sexual organs can be any type, but are collectively called **Genital Warts**.

Is it dangerous to have a wart? Generally, warts are only bothersome because of pain (irritated skin on the feet or rubbing on clothes) and cosmetic concerns. It is not a medical emergency if someone has a wart on their body, feet, hands or face. However, Genital Warts can sometimes cause cancer. It is important to have all genital warts examined and treated by a doctor.

#### How can I get rid of a wart?

There are many different ways to treat a wart, but not all ways work for every person – there is no "magic" treatment. Conventional treatment involves freezing the wart with liquid nitrogen (cryotherapy) or injecting cantharidin, a chemical which makes the wart blister then fall off. These work in about 70% of patients. Another, newer method uses a "pulsed-dye laser" capable of targeting the wart's blood supply. A recent study showed that this treatment was equally effective, much more expensive, but somewhat less painful than standard methods.



A pulsed-dye laser in an exam room

There are various other ways to treat warts. Some doctors will inject bleomycin, and anti-cancer drug. Others will inject allergens, triggering a response that will often cause rejection of the infected tissue. There also are physicians who inject interferon – a chemical that causes a natural immune rejection of the wart.

Dermatologists and surgeons sometimes treat warts by numbing the area with medication, then surgically cutting away the affected tissue.

Some patients and researchers have even found that removing the top layer of the wart than covering it with duct tape every 6 days will eliminate the wart. One study showed this to be more effective than laser or conventional therapy, successfully treating up to 85% of warts.

What about holistic treatments? Some people believe that holistic methods, like hypnosis and meditation, can cause the body to heal warts. There have, however, been no studies demonstrating this phenomenon and it is known that many warts left untreated will resolve in about 18 weeks.

### What is the best kind of treatment?

This common infection and its potential treatments have been studied many times by many people; unfortunately,

no "best therapy" for warts has yet to be demonstrated. It appears that the best approach to treating warts is to start with the most conservative, cost effective methods – duct tape, cryotherapy, and cantharidin. If a wart fails to resolve with these methods, then a patient can move to more expensive and aggressive measures – laser, injectable drugs and surgery.

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