



Manhattan Beach Dermatology

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WART INJECTION THERAPY

Treating warts is hard and frustrating, both for you and your doctor. Even when treated well, 3 out of 10 times the wart does not go away after several treatments or comes back. This is not the fault of your doctor. It is what warts do best.

Warts are **caused by a virus and easily spread**. All of us probably come in contact with the wart virus every day. Some people fight off the wart virus well. Others do not. We are not as yet sure why the warts get visible. In other words, we have not answered why some people get them, while others do not.

There are over 80 different types of the **virus that cause warts (human papilloma virus or HPV)**. The most common warts seen in the office are warts on the **bottom of the feet (plantar warts)**, **on the hands**, and in the **genital area (condyloma)**. When numerous warts come out in small clumps, they are called **mosaic warts**. When they occur under a fingernail or toenail, they are called **periungual warts**.

Your doctor can offer **several ways to treat your warts: cryosurgery** (freezing with very low temperatures), **surgery, electrocautery (burning), laser therapy and injection therapy**. With the first three methods, you will be left with an open sore for seven to ten days. Often there can be scarring and there will be some pain. It may not work 3 out of 10 times. Sometimes, however, there is no better way and one of these forms of treatment will be needed.

Several years ago, a new way to treat warts was discovered. It is **injection therapy with Candida antigen**. Candida is the yeast which causes vaginal infections in women. To prepare the solution for injection, the yeast is killed. All of us are exposed to this yeast every day. If the yeast is injected just under the skin, it will cause a red bump much like a mosquito bite. Doctors have used the solution for 25-30 years to check a patient's immune system. When given as a shot, the skin should turn red in a few days. If it does not, then the immune system is not working right. Injecting this material into a wart causes the immune system to become very active in that area.

The body attacks the injected killed yeast and removes it. It also gets tricked into attacking the wart. The wart may be taken away by the body. The **advantages of injection therapy** is that it is quick, does not hurt after the treatment, and there is no scarring or open sore for you to deal with. You can go back to fully doing what you usually do, including swimming, sports, yoga, etc.... No special care is needed.

The side effects of injection therapy with Candida have been very rare. Occasionally someone will develop a **rash** (hives). This will mean that the patient can get no more Candida shots. In general, the less time the warts have been present and the younger the patient, the better the response. However, even patients in their 70's who have failed many other treatments often get better. Some people report flu-like symptoms (achy, feverish, tired) which get better quickly with acetaminophen (Tylenol). Often there will be some **itching**. Rarely, there will be some mild **blistering**. Often the warts will turn somewhat black and the crust will fall off. About 1/2 of the time a second injection will be needed one month later and half of these will respond. In the people who have not gotten better after the first or second injection, a third injection another month later can be tried. Approximately 1/2 of these will respond. We don't normally give more than three injections but at times have given five. If all three injections have failed, then one of the older treatments will be needed.

Although there have been several studies showing excellent safety and efficacy, the Candida therapy for treatment of warts **has not been approved by the Food and Drug Administration (FDA) specifically for treating warts**. However, it is approved to test the immune system. We "check the immune system at the site of the warts" using the injection. We do not give this to pregnant women, though it probably would not cause a problem.

Because of how well the treatment works and how people like it, we may start our treatment of warts using the Candida antigen. If you have any questions, please discuss them with us before your treatment. If you notice a rash after treatment, please call our office as soon as possible. If you develop hives, take 50-100 mg of Benadryl immediately (child/adult) and call us. A follow-up visit will be scheduled for one month later. Repeat injections can be done on a monthly basis. If you are **absolutely sure your wart is gone, cancel the visit at least 3 days before your scheduled visit**. If you are not absolutely sure it's gone, keep your visit. Let us decide if more treatment is needed. Once the wart is gone, it doesn't usually come back. Good luck!