



## **Wart Injection Therapy**

There are over 80 different types of the virus that causes 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.

Over-the-counter treatments are very common and work well if you use them as recommended. Duofilm is a strong liquid that is now available over the counter. A small drop is applied to the wart every night before bed and the area covered. The dead tissue is rubbed off each evening before you put on another drop. Generally, four to six weeks of this for hand and foot warts will take care of them.

Over the last eight years, we have used a new way to treat warts. 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 yeast and removes it. It also gets tricked into attacking the wart. The wart may be taken away from by the body. **The advantages of injection therapy** is that it is quick, does not hurt much, and there is no scarring or open sore for you to deal with. You can go back to your normal routine; 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, we have treated patients in their 70's who have failed many other treatments and they got better. Some people report flu-like symptoms (achy, feverish, fatigued) 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 50% of the time, a second injection will be needed one month later and half of these will respond. If there are still no results, a third injection another month later can be tried. Approximately 50% of these will respond. We don't normally give more than three injections but in certain circumstances we have given four or five.

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. A follow-up visit will be scheduled for three weeks later.