# Warts

Warts occur most frequently in children and teens. They are caused by infection with a certain family of viruses. Warts may vary in appearance, partly depending on where they occur on the body. The hand is a common location for warts. Another is the sole of the foot, where they are called "plantar warts." Warts can be unsightly and sometimes painful. Several different treatments are available, and treatment may have to be repeated several times to eliminate warts completely.

### What are warts?

Warts are caused by infection with a family of viruses called "human papillomavirus" (HPV). The virus is usually spread by direct contact with an infected person, but it can also be spread from objects or from one part of the body to another. Little breaks or cuts in the skin allow the virus to enter. Because the hands, feet, and elbows often have some breaks in the skin, they are common sites for warts. It may take 1 month or longer after HPV infection occurs before warts appear.

Warts usually look like small bumps or lumps of rough, hardened skin. Their appearance varies depending on several factors, including the type of HPV, the part of the body where the infection occurs, and the person's health. People with warts in noticeable locations, such as the face or hands, are concerned about their appearance. Warts can cause pain in some locations, such as the feet (plantar warts).

### What do they look like?

- Most often, warts appear as small, hard bumps on the skin. The surface of the wart is usually rough and "horny" looking.
- Warts may appear practically anywhere on the body. Common sites include the following:
  - On the fingers, including around the nails, or on the back of the hand.
  - On the face.
  - On the knees or elbows.
  - On the soles of the feet (plantar warts).
- The rough skin on the surface of the wart can usually be scraped away without causing pain. Underneath, black dots may be visible. People sometimes think these dots are the "roots" of the wart, but they're really just clots at the ends of tiny blood vessels.

- Pain and tenderness may result from warts in certain areas, including around the fingernails and on the feet.
- The appearance of warts may vary, depending on the cause and location.
  - Plantar warts are flattened because of pressure from the body's weight on the soles of the feet. There may be a ring of calloused skin—sometimes making it difficult to identify the growth as a wart—around a hollowed-out middle.
  - Warts may fuse together, causing a larger area of hardened skin ("mosaic warts").
  - "Flat warts" are most common on the face and neck. They appear as small, slightly elevated pink or brown spots and are smoother than the usual wart.
- Other appearances are possible.

## What are some possible complications of warts?

- Warts can be difficult to get rid of. They may spread to other parts of the body or may come back after treatment.
- Although warts can be an unsightly and embarrassing problem, they do not usually case serious complications.
- The exception to this is *genital warts*. When warts occur on the genitals, they are usually a sign of a sexually transmitted disease; however, warts in the genital area are not always caused by sexual contact. In women and girls, HPV infection of the cervix (the opening of the uterus) may increase the long-term risk of cervical cancer. Pregnant women with genital warts may spread HPV infection to their baby at birth.
- Always get medical attention for warts in the genital area.

#### How are warts treated?

There are several treatments for warts. Many warts eventually go away on their own. However, because of problems with appearance or pain or to avoid the risk of spreading to other sites, warts are usually treated. Your doctor can recommend the most appropriate treatment, based on the type of wart, where it is located, and whether it is causing pain or other problems.

*Wart removers*—Especially if warts are small and located in easy-to-reach places like the hands, they can be treated at home using prescription or nonprescription wart-removal products (for example, Compound W). These products contain mild acids that slowly and painlessly destroy the warts. They can be effective but may take a long time to eliminate warts. • Before applying wart-removal products, soak the area in warm water and use a pumice stone or emery board (nail file) to remove excess skin. This will help speed treatment. Cover the area with a bandage after applying wart remover.

*Tape method*—Another approach is to cover the wart with tape (usually duct tape). Leave the tape on continuously for a week or longer. Reapply tape each week until the wart is gone—this may take several months or longer. The tape method is especially useful for warts around the nails, which can be difficult to treat.

*Other treatments*—The doctor may recommend other treatments or recommend a visit to a dermatologist (doctor specializing in skin diseases). With all of these options, repeated treatment may be needed to eliminate warts completely.

- *Liquid nitrogen* is a common method of treatment in which a very cold substance called liquid nitrogen is used to freeze the wart (cryotherapy). Blistering can occur, and treatment can be painful. However, the pain usually goes away after an hour or so.
- Topical (placed on the skin) medications are available in several forms:
  - Cantharidin (Cantharone): causes blistering.
  - *Imiquimod (Aldara)*: stimulates part of the immune system.

- Acids.
- *Oral cimetidine*: most often used to control stomach acid for heartburn and ulcers, but is sometimes used for warts.
- Laser treatments are sometimes used.

*Treatment for plantar warts*—Warts on the soles of the feet are often treated by freezing with liquid nitrogen. Another option is the use of 40% salicylic acid plasters, which are placed over the wart and changed every few days. Soak the area and remove dead skin when changing plasters. There are a number of different ways to treat these kinds of warts.

### When should I call your office?

Call our office if:

- Warts come back after treatment.
- Increased redness, tenderness, or pus develops in the skin around the wart.
- Call our office about treatment of warts in the genital **(**) area.