

## Verrucae



PLAY PICMONIC

### Warts

#### Warty Toad

Verrucae are more commonly referred to in the layman's term, "wart". Additional descriptive terms are sometimes applied to verrucae, such as "verruca plantaris" for plantar warts, "verruca plana" for flat warts, and "verruca vulgaris" for common warts.

### Characteristics

#### Papillary Cauliflower Like Growths

##### Pimply Cauliflower

Verrucae commonly appear as cauliflower-like papules and are typically localized to the digits, the sole of the foot, or near the anus or genitals.

#### Low-Risk Human Papillomavirus

##### Human-puppet-virus with Safety-hat

Verrucae typically form as a result of the transmission of low-risk strains of human papillomavirus and are therefore not directly associated with increased risk of cancer. HPV is typically transmitted via direct skin-to-skin contact. The main "low risk" HPV strains that cause nonanogenital verrucae are HPV 1, 2 and 4.

#### Epidermal Hyperplasia and Hyperkeratosis

##### Hiker-plates and hiker-carrot

Although biopsy is almost never necessary to diagnose verrucae, if a biopsy were to be done it would demonstrate epidermal hyperplasia and hyperkeratosis. Recall that hyperplasia refers to an enlargement of tissue due to an abnormally increased rate of cellular reproduction, though this is not in itself a malignant process. Hyperkeratosis refers to abnormal thickening of the keratin-containing layer of skin.

#### Koilocytes

##### Koi

Koilocytes, also known as halo cells due to their appearance on histology, are squamous epithelial cells with perinuclear cavitation that result from infection by HPV. Though koilocytes are seen in verrucae caused by low-risk HPV, they may also be present as a result of high-risk HPV infection and in pre-malignant tissue. <br>

### Management

#### No Treatment Needed

##### No Sign over Doctor

Since verrucae are not associated with any significant morbidity or mortality, no treatment is generally needed. Most cases will resolve spontaneously within months to years.

### **Topical Salicylic Acid**

[Aspirin-acidic lemon](#)

Though treatment for verrucae is not technically necessary, some patients may wish to be treated for cosmetic reasons. One of the most commonly employed therapies is topical salicylic acid, which works by repeatedly exfoliating the superficial layers of skin until the wart is gone.

### **Cryotherapy**

[Mr. Cry-O](#)

An additional option for patients wishing to be treated for verrucae is cryotherapy, which consists of applying liquid nitrogen directly to the wart. This acts by a similar mechanism as salicylic acid, causing local exfoliation until the lesion is gone.