

### **Chemical Treatments, (cont).**

We use 70% Salicylic acid in a Lanolin base to destroy the affected skin cells and then at your next appointment we remove all the dead skin and reapply the acid.

This procedure is continued, usually on a two week cycle, until all the affected cells are removed. This treatment is good for large areas or stubborn verrucae but is dependant upon keeping the foot dry for a fairly long period.

The second chemical treatment is good for small or isolated verrucae and is a short, sharp treatment. The acid is again applied to a masked area and needs to be kept dry for 24 hours. It is painful for a few days and you are normally seen in two weeks time to cut away the dead skin and reapply the treatment if necessary.

### **Cryotherapy.**

This is an aggressive treatment which uses Liquid Nitrogen at  $-196^{\circ}$  to cause localised frost bite, freezing the tissue. This treatment causes the water content of the cells to turn to ice and therefore expand. If the freeze is rapid enough the ice crystal will expand quicker than the cell can stretch therefore blowing the cell apart and destroying it. The treatment can be painful on application and for up to 5 days after sometimes resulting in the area forming a large blood blister, which if painful needs to be drained and kept clean. The effectiveness of the treatment is dependant on the size of the verruca, its location and the water content of the skin. You are normally seen after 6 to 8 weeks where the dead skin is cleaned up and, if necessary, a repeat application applied.

### **Cauterization/Surgery.**

This is usually carried out at hospital and we do not use this treatment or usually recommend it. It involves using a hot wire to burn away the tissue and is no more successful than other treatments and can lead to scarring, which later in life can cause problems with hard skin and corns.

### **Homeopathy.**

These treatments are based on boosting the immune system either internally with a course of Thuja tablets or locally with Tea Tree oil. We stock both in the surgery and whilst no treatment suits all you cannot lose by trying them.

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## **M B Burchell & Associates** **VERRUCAE-the facts**

### **VERRUCAE**

**A helpful guide to understanding what they are  
and the treatments available.**

## **M B Burchell & Associates**

MChS DPoDM

HPC Registered Podiatry

**Core value Podiatry for a comfortable lifestyle**



**VERRUCA ~ (singular).**

**VERRUCAE ~ (plural).**

### **Definition.**

A Verruca or plantar wart is an infection of the skin caused by a virus. The virus which causes verrucae in humans is called the Human Papilloma Virus, (HPV), of which there are many different variants. It is thought many people carry the virus on the surface of the skin but does not cause any harm unless it penetrates the skin.

### **Who gets them?**

Verrucae occur more commonly in children than adults, the majority of adults having been exposed to the virus as a child and as a result may have developed their own immunity to the virus without necessarily having any visible sign of verrucae on the foot. It is claimed that in children even without treatment, 50% of verrucae disappear within 6 months; 90% are gone within 2 years. They are more persistent in adults but will eventually disappear. About 1 in 10 people in the UK have verrucae at any one time. People with weak immune systems are more likely to develop verrucae because their body is less able to fight off the virus.

### **Causes.**

The verrucae are caused by external skin contact with the Human Papilloma Virus which is usually found on warm, moist hard surfaces as found around the edge of swimming pools, shower and bath areas and saunas. The virus enters the epidermis, (the top layer of skin), through small breaks or cuts in soft macerated skin and into the skin cells of the dermis, (the lower layer of the skin containing the new skin cells, blood vessels and nerve endings). The virus multiplies, locked within the individual cells, causing an increased rate of cell turnover in the skin, producing misshapen distorted cells that drag up to the surface the blood vessels and nerve endings. Thus a verruca is a mass of excess skin cells intermingled with blood vessels and nerve endings.

Because it may take many months for the virus to multiply within the skin cells and then to reach the surface and be visible, it makes no sense to prevent bare foot activities with a verruca. The virus is only considered contagious when on the skin surface, not when it becomes part of skin cell within the dermis. When the cells affected by the virus do reach the surface they are not considered contagious, unless the cell structure is broken by picking and poking.

### **Signs & Symptoms.**

Verrucae are similar in appearance to corns as a build up of callous on the surface of the skin. However verrucae have a more cauliflower look to them and are paler in colour than the surrounding area. Very often the area is covered with black dots or what look like black roots. These are the ruptured blood vessels brought to the surface by the misshapen distorted skin cells. The skin striations, (lines), are pushed out around the edge of the verrucae area. The area often has a white

halo around it caused by the skin cells being tightly packed together.

Patients often complain that a verruca feels like a stone or a piece of glass in the foot and is painful first thing in the morning. They are usually more painful when squeezed from the sides or when there is a large build up of callous and direct pressure is applied.

### **Can they be prevented?**

Verrucae are almost impossible to prevent as the virus cannot be seen and is present on all the moist, hard surfaces around swimming pools and showers. It is therefore considered that almost everyone who walks barefoot in or on these environments will contract the virus, however, only those with a break in the skin or a reduced or suppressed immune system will go on to develop a verruca.

### **Treatments.**

It is considered that in most cases the condition is self-limiting, usually spontaneously improving with the passage of time. This is however dependant on the age and health of the individual, most verrucae disappearing within 2 years. Bearing this in mind if the area is pain free, unchanging and not embarrassing then leaving it untreated could be an option, allowing nature to take its course and the build up of antibodies to fight off the virus and the possibility of preventing second infections occurring.

The choice of and success of any treatment is dependant upon your skin type and quality, its water content, the site of the infection and your general health.

### **Over-the-Counter, (Home), Treatments.**

These fall into three main types, **gels, paints and creams.**

The **gels and creams** are usually a mild form of Salicylic acid that is applied daily to reduce the callous build up, therefore reducing the pressure and making the area less painful, and then killing off the skin cells that contain the virus.

The **paints** are either a liquid form of salicylic acid that work in the same way as above or work by causing cell destruction by dehydration using formaldehyde. This is our preferred method of home treatment because it is easy to apply and does not burn the skin. It is important to make sure that the treatment is applied regularly and the dead skin is removed using a file or abrasive block frequently to maintain the effectiveness, there is no point in treating dead skin.

All these forms of home treatment are not dependant on keeping the area dry, are not usually painful but do take a period of time to work, sometimes many months due to the strength of the ingredients.

### **Chemical Treatments.**

These treatments are applied by the Podiatrist and are stronger than the home treatments and work in the same way. We mask the area to prevent damage to the good skin and apply the acid to the area in a felt pad to reduce the pressure. the area needs to be kept dry for between 1 & 2 weeks depending upon skin type.