

# Freezing Warts With Cryotherapy

Cryotherapy (often also called cryosurgery) is the treatment of skin conditions in primary care. The word 'cryosurgery' is derived from Greek, meaning 'icy cold handiwork', which quite appropriately summarises this treatment as, the skilful application of extreme cold to the skin.

Liquid nitrogen is now by far the most common refrigerant used to produce the degree of cold needed. Advantages of liquid nitrogen include its extremely low temperature of -196 degrees Centigrade, as well as its widespread availability and ease of storage.

## **Q: How does cryotherapy actually work?**

For optimal results, the abnormal area of skin needs to be frozen to a sufficiently low temperature for long enough; as well as being frozen widely and deeply enough. The aim is to cause enough freezing to ensure sufficient cells are killed, whilst minimising any damage to the deeper or surrounding normal skin. We then rely on the body's ability to heal itself, in order to return the treated area to as normal an appearance as possible after the skin problem has been removed.

## **Q: How is cryotherapy performed?**

The two most common methods to apply liquid nitrogen to the skin are using a hand-held spray or cotton-buds. Using the spray method can produce much lower treatment temperatures, it is better for treating larger areas and easier to control the amount of treatment given. A shield may be used to protect the surrounding normal skin from unnecessary

freezing. The cotton-bud method involves repeatedly dipping the bud into a small pot of liquid nitrogen and pressing it onto the skin lesion. Good success rates are achieved using both methods, though the spray method is more powerful and more versatile.

Over-the-counter cryotherapy treatments are available to the public. However these self-treatments usually only achieve a temperature about one third as cold as a liquid nitrogen spray.

## **Q: What is cryotherapy good at treating in primary care?**

By far the most common use of cryotherapy is for the removal of viral wart infections. These are mostly seen in children and include common warts and verruca infections on the soles of the feet. About two-thirds of warts will actually disappear without any treatment within 2 years. Cryotherapy for a wart or verruca may need 3 - 4 treatment sessions, at 2 - 3 weekly intervals.

## **Q: What can a patient expect during and after cryotherapy?**

Where the liquid nitrogen is sprayed, there will be some stinging pain during freezing and thawing. Pain can start again a few hours afterwards, and a pain-killer medicine is sometimes needed. To prevent pain during cryotherapy, an anaesthetic cream can be applied 1 - 2 hours before treatment. This can be especially useful when treating children.

Within hours of treatment, some redness and swelling are expected, and very often a blister will form. The blister may



contain clear fluid, or in some cases blood (especially when verruca infections are treated). There may be some oozing of fluid from the area, which can last for several days and a simple dressing may need to be applied.

Cryotherapy is a very useful and successful treatment option in primary care clinics. However, it is certainly not appropriate for all skin lesions. Other treatment options (including in some cases no treatment at all) need to be carefully considered. Seeing the doctor again is important if a skin lesion that has been treated persists or recurs.



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