



# Cryotherapy



Changi  
General Hospital  
SingHealth

## What is cryotherapy?

Cryotherapy is a procedure for removing skin lesions by freezing them. Liquid nitrogen is used for this procedure because of its low boiling point at  $-196$  degrees Celsius.

## What skin conditions can be treated with cryotherapy?

A wide range of benign (non-cancerous) skin lesions can be treated with cryotherapy. Examples include viral warts, actinic keratoses and seborrheic keratoses. Some superficial low-grade skin cancers can also be treated with this method, but your dermatologist will discuss the benefits and risks of using cryotherapy with you before starting treatment.

## How is the procedure performed?

Your dermatologist or his trained nurse assistant will perform this procedure. He or she may need to use a surgical blade to remove the thick dead skin on viral warts before applying the liquid nitrogen. Liquid nitrogen is applied to the skin using a spray gun, a metal probe or a cotton applicator. The duration of application depends on the size, depth and type of lesion treated. The frozen skin is then allowed to thaw, and the process is repeated one to two times more.

The skin lesion may form a scab, and this will take about one to two weeks to drop off. Depending on the type, size and depth of the skin lesion, more than one treatment may be necessary.

You may get a painful burning sensation after the treatment. However, this only lasts for a few minutes (only in rare occasions that it may last for hours).

If you develop persistent pain at the treatment site, please highlight to the nurses. You can take painkillers (e.g., Panadol to reduce the pain).

Sometimes, there may be blister formation.

## What are the side effects of liquid nitrogen cryotherapy?

- ➔ Pain/ discomfort (common effect)
- ➔ Swelling and redness (common effect)
- ➔ Blistering
- ➔ Lightening or darkening of skin colour at the treatment site. This is seen more commonly in individuals with darker skin colour.
- ➔ Numbness
- ➔ Recurrence of the skin lesion
- ➔ Infection (rare)
- ➔ Scarring (rare)

## How do I take care of the treatment area?

- ➔ Keep the area dry
- ➔ Do not pick on the scab that forms over the treated area
- ➔ The treated areas will initially become red and slightly swollen. Occasionally, a blister may develop. Normally, it is impossible to predict when it will blister, but if it does develop, a sterile or clean needle may be used to burst it, to release the fluid.
- ➔ Over the next few days, the treated area will scab and may darken in colour. Do not pick, scratch or attempt to peel off the scab. For best results, allow the scab to come off naturally, rather than picking at it.
- ➔ Normal healing process usually takes about a week. When the scab comes off, there may be some changes in pigmentation of the skin (lightening or darkening) which may be permanent – especially for darker skinned patients.



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