

Cryotherapy (liquid nitrogen)

Cryotherapy means "cold therapy". It's a non-surgical technique used to remove skin lesions by freezing the skin cells until they die.

Cryotherapy is commonly used to treat many benign (non-cancerous) skin lesions. The most commonly treated conditions include:

- actinic keratoses (also called solar keratoses or sun spots) – pre-cancerous lesions found mainly on sun-damaged skin
- warts and verrucas
- seborrhoeic keratoses – a harmless warty skin growth and a common sign of ageing
- Bowen's disease – an easily curable early form of skin cancer.

Occasionally, a specialist skin doctor (a dermatologist) may suggest using cryotherapy to treat a small skin cancer.

Cryotherapy is a routine procedure that your doctor, practice nurse or dermatologist can do.

How cryotherapy is done

Your doctor or nurse will spray liquid nitrogen onto your lesion. You may feel minor stinging or pain during or after the procedure. You don't usually need a local anaesthetic. Sometimes liquid nitrogen can be applied using a cotton tipped applicator.

Freezing lasts a few seconds, depending on how thick the lesion is. Sometimes you need a repeat treatment or regular treatments.

The treated area will usually become red immediately after the procedure. A scab may form over the next few days, which will drop off over the following one or two weeks.

A blister can sometimes form, containing clear, red or purple fluid.





After cryotherapy

You don't usually need any treatment during the healing phase after cryotherapy. If you do, your doctor or nurse will advise you.

You don't need to put a dressing over the area unless your clothes rub on it or it could get knocked or injured.

Wash and dry the area gently once or twice a day.

If you need pain relief, use a medicine like paracetamol.

Risks and side effects

Cryotherapy is generally safe. Other than immediate side effects such as pain, redness and blistering, the main side effect is the risk of infection. This is when the treated area becomes red, swollen, painful and pus appears.

Other potential side effects include:

- delayed healing
- scarring (including a white patch)
- damage to the underlying skin
- nerve damage (this is rare)
- recurrence of the lesion.

If you're concerned about infection or anything else after cryotherapy, ask your doctor or practice nurse to check the treated area.

Written by HealthInfo clinical advisers. Last reviewed July 2021.