

## Warts: Liquid Nitrogen Treatment

Warts are growths on the skin caused by viruses (germs that can only be seen with a special microscope). They vary in size and appearance. Warts are most often found on the hands and feet but can be anywhere on the skin. They spread from one person to the next by touching. Warts are more common in children and young adults but may appear at any age. Sometimes they go away in weeks or months with no treatment but others last for years.

### What to expect

Your child's wart can be treated with liquid nitrogen. Liquid nitrogen freezes and destroys both the wart and a small area of normal skin around the wart.

- A special spray bottle or a cotton swab is used to put on the liquid nitrogen. It takes about 10 to 20 seconds to apply. The liquid nitrogen is so cold it actually stings like frostbite or feels like an ice cube stuck to your skin. As the skin thaws, it may feel hot or burning.
- For better results, the wart should be treated twice, if tolerated by your child. This treatment can be uncomfortable, so your child may cry. The treated area may be sore for the next day or two.
- Some warts are very thick. The extra skin on top of these warts needs to be removed for the treatment to work better. This is done with a special sharp instrument.
- In most cases a blister will form where liquid nitrogen is applied. The location of the wart and the thickness of the skin around the wart will determine how long it takes for the blister to form. The blister may be either clear or filled with blood. Sometimes a crust or scab may form instead.
- After 4 to 7 days, the blister will break, dry up and fall off. The area may be sore.
- Liquid nitrogen treatment does not usually leave a scar. The treated area may be lighter in color and take several months to return to normal. If the wart is around the fingernail, there may be changes in the nail (such as grooves), but these are not usually permanent.
- Most warts will need to be treated several times, waiting 4 to 6 weeks between treatments. The number of treatments depends on the size of the wart and how well the wart responds to the treatment.

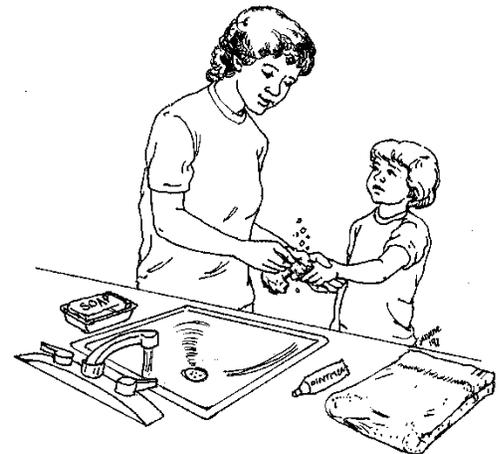
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## What to expect, continued

- You may be asked to use a medicine between treatments. The medicine may be bought over the counter or you may need a prescription. It is important to use it to make the treatments work better. The medicine may irritate the skin. Wait until the irritation from the liquid nitrogen goes away before applying the medicine.
- Most warts will improve and disappear with liquid nitrogen treatment. For some patients it may not be as helpful. In very few patients, the wart may become bigger or a ring of smaller warts will develop around the treated wart.

## What to do

- Keep the area clean and dry. Do not break the blister. Wash it every day with soap and water. Dry well and cover it with a Band-Aid<sup>®</sup>.
- When the blister breaks, wash the area daily with soap and water. Apply double antibiotic ointment such as Polysporin<sup>®</sup> and cover the area with a Band-Aid<sup>®</sup>.
- Give acetaminophen (Tylenol<sup>®</sup>) or ibuprofen (Advil<sup>®</sup> or Motrin<sup>®</sup>) as needed for pain. Read the label to know the right dose for your child.  
**Do not give aspirin or any product that contains aspirin.**



**Picture 1** Wash the area every day and cover with a Band-Aid<sup>®</sup>.

## When to call the doctor

The risk of infection after treatment is small. Call the doctor if:

- Your child has a fever over 101°F .
- The blister opens after treatment and does not heal.
- The blister is red, swollen, feels hot or drains pus.

Remember, one treatment with liquid nitrogen may not remove the wart completely. The skin doctor (dermatologist) will decide if it needs to be treated again.