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Cryotherapy – Patient Education Handout

Cryotherapy

Cryotherapy means treatment with extreme cold. The area that is treated actually freezes and then falls off. There are several different ways that the treatment can be carried out.

Liquid Nitrogen has a temperature of -196 Celsius. It can be either poured out into a Styrofoam cup and applied with a cotton-tipped applicator or sprayed onto the wound with a special thermos-like gun.

Another method to use is *nitrous oxide* in a blue tank. This gas has a temperature of -89 Celsius and has an effect similar to that of liquid nitrogen. It is less cold so it may take a little longer to achieve the proper effect. A special unit with different types of tips is used to freeze the tissue.

A third method is to use refrigerants that are *compressed gas* in a small can. These are around -40 Celsius to -50 Celsius, and the area to be treated is sprayed with this gas.

Advantages of Cryotherapy

Cryotherapy is very *effective*. Both benign and malignant (cancer) changes can be treated. One of the advantages of using cryotherapy is that the final results are generally *cosmetically excellent*. There is minimal or *no scarring*. It is very *quick*, and if there are only a few lesion, *relatively painless*. If there are large lesions or numerous lesions, the doctor may want to numb the area first. Infection is extremely rare, and there is no bleeding. *Postoperative care is minimal* except for washing the area three to four times a day with soap and water and applying antibiotic ointment. Generally, patients can bathe and go about their usual daily activities.

Disadvantages of Cryotherapy

The freezing does have *some discomfort* associated with it as does the thawing. That's why we will numb the area if there are large lesions or multiple lesions present. Many times the treated area will not completely resolve and will need a second and a third treatment. It is difficult to treat areas where there is hair growth, such as around the eyebrows and eyelashes, because hair may not grow back in the treated areas. Probably the most significant "hassle factor" is that a *blister* often will form. When this blister breaks, there may be a very heavy *watery discharge*. You may need to return to the doctor's office so that the area can be treated to stop this discharge. Also, if the area treated is under clothing, the discharge may stick to the clothes and cause discomfort. Apply antibiotic ointment and keep it covered to prevent this. If you are light-skinned, cryotherapy is ideal for you. However, if you are dark-skinned, the area treated *may heal with a lighter color*. This may not be of concern if the area usually remains covered, but if it is around the face or some other cosmetic area, then it may be best to opt for another mode of treatment.

Preparation for the Office Visit

No real preparation is necessary prior to the office visit. You may want to take Tylenol or 600 to 800 mg of ibuprofen just to help decrease the swelling afterwards. Let the doctor know if you prefer to have an injection to numb the area.

Who Should Not Have Cryotherapy

If you have any type of arthritis condition, cancer, ulcerative colitis, glomerulonephritis, heart valve infection, syphilis, mononucleosis, cytomegalovirus infection, hepatitis, diabetes, peripheral vascular disease, Burger's disease, are on steroids, or known to have high levels of cryoglobulins, be sure that your doctor knows. You may be much more sensitive to the freezing.

As stated above, if you are dark-skinned, you may want to choose another method of treatment because of possible loss of color in the area treated.

Care After Treatment

See the patient education handout titled "Wound Care After Cryosurgery."