

Cryosuccess Instructions for Veterinary Use Only

The Cryosuccess is a cryosurgery unit using nitrous oxide for the treatment of all kind of skin lesions.

CAUTION: This device should only be used by a licensed veterinarian on animals. It is not approved for human use. Please consult FI Sales, LLC (www.fisalesllc.com) at 1-888-972-9777 if you have any questions regarding the use of this device.

Upon receipt, please make sure all parts are included as shown below:



If any parts are missing or damaged, contact FI Sales, LLC (www.fisalesllc.com) at 1-888-972-9777.

Specifications

The Cryosuccess is a cryosurgery device working at -89°C (-127°F).

The Cryosuccess is gold plated brass and steel with a lever arm that opens a valve for proper application of the cryogen.

The cryogen is applied through a gold plated metal tip with a borosilicate glass nozzle.

The cryogen is 23.5 grams of nitrous oxide in a cartridge under 50 bar (725 psi) pressure.

The cartridge is gold plated steel with a threaded connection and safety valve.

CAUTION: Always use gloves while changing the cartridge. Cartridges are thermosensitive and should never be exposed to temperatures above 50°C (122°F).

General Information

Cryosurgery has been used in veterinary dermatology for several decades. Today, cryosurgery is used to treat almost all kinds of skin lesions. Different methods of cryosurgery were and are still used today. The difference in the treatments is typically the temperature of the cryogen. Too cold of a temperature can result in excess cellular damage, while too high of a temperature may result in an unsuccessful treatment. Other factors like the treatment times, the type of lesion, and the depth are also relevant. The advantages of cryosurgery include easy application, short treatment time, low pain, high success rate, infrequent skin damage, infrequent scarring and modest treatment costs.

The Cryosuccess uses pressurized cartridges of liquid nitrous oxide gas. As the liquid nitrous oxide is released, it changes to gas through an endothermic process. In an endothermic process, heat is used to transform the gas into liquid. In the case of the Cryosuccess, heat is withdrawn from the atmosphere at the spot of the liquid to gas transformation, reducing the temperature at the spot of the transformation down to -89°C (-127°F). This is an ideal temperature for localized application to the skin lesion without surrounding cellular damage.

Use

Attaching the cartridge:

Take the unit in your hand and put the metal pin in the hole near the lever. Use the metal pin to help grip the body without damaging the lever. Screw the cartridge in a clockwise direction quickly and fully into the body of the unit. Take care to align the cartridge straight and never force the threads. No noise of escaping gas should be heard while attaching the cartridge. The unit is then ready for use.

Replacing the cartridge:

CAUTION: Always use gloves while changing the cartridge.

Once the gas cartridge is empty and cold is no longer felt during application, the cartridge must be replaced.

Use the metal pin in the hole near the lever to grip the body. Unscrew the cartridge in a counter-clockwise direction. If the cartridge is completely empty, it will detach easily.

If there is residual gas remaining, then the remaining pressure will make it more difficult to unscrew the cartridge. Therefore, it is not recommended to remove cartridges that still contain gas. In addition, you will notice a hissing while removing a cartridge that still contains gas. This noise emanates from the residual gas in the small chamber in front of the safety valve, but there is no danger as long as gloves are worn as directed.

Attach a new cartridge as described in "Attaching the cartridge" on the previous page.

Using the device:

Remove the protective cap from the glass tip and place the tip vertically on the area to be treated. The liquid gas must be brought directly onto the skin. Contact between the tip and the skin is a must. If there is an air gap between the tip and the skin, the freezing effect is reduced.

Apply the liquid gas onto the skin by pressing the lever. The lever allows for a precisely timed application.

Depending upon the location of the skin lesion being treated, the patient may feel no pain during treatment due to the anesthetizing effect of the cold application. In other patients and in other sensitive areas, a pain sensation may be felt although typically light. Anesthesia is rarely necessary, and at the most, a local anesthetic is used.

Duration of treatment:

The Cryosuccess will treat a 3mm x 3mm x 3mm deep area, effectively killing those treated cells, during a 10 second application. Reduce application time for surface lesions that do not extend to a 3mm depth. For lesions that extend deeper than 3mm, a second application at a later time may be necessary.

Post treatment:

Depending on the location of the skin lesion being treated and the type of skin the patient has, skin reactions may differ. These reactions may range from a non-visible reaction to an immediate swelling. Eventually in all cases, a light reddening will occur and after a few days a necrosis will appear which will peel the skin off a few days later. The new skin may appear with a different pigmentation which may adjust back to normal over time.

Post treatment (continued):

The treated lesion should be addressed as any wound, with proper care and dressing to avoid infections. The treated lesion should also be kept from sun exposure until the area is fully healed with new skin formed.

Patients should be examined after 2 weeks to examine progress with healing. Patients should be advised to call or return should bleeding, discharge, or infection result.

Cleaning

Normally, the tips of the device can be cleaned and disinfected with a disinfectant or alcohol. If they have been in contact with blood, mucus or an infected area, the tips must be sterilized prior to being reused. To sterilize, unscrew the tip from a unit. Wrap it in a pouch and sterilize in a steam sterilizer. All other sterilization methods are prohibited.

Storage

Always store the tips with the protective cap on. Replace the device into the plastic carry case to avoid damage. Take care that the cover of the case does not press onto the lever to eliminate unwanted gas flow. Protect the unit against heat and sun. The storage temperature should be between -10°C to a maximum of 45°C.

Disposal

Consult your local authorities for proper disposal of materials. Units and spent cartridges can be returned to FI Sales, LLC (www.fisalesllc.com) for recycling. Empty cartridges may be disposed of as scrap metal.

Safety

Use the device only as described in this instruction manual and only for the intended use of veterinary medicine. Do not try to modify the device. Any modification of the device will result in the invalidation of warranty and liability.

Never use a dropped or damaged unit. Return to the FI Sales, LLC (www.fisalesllc.com) for evaluation.

Do not apply excessive force when connecting the components.

Keep the device out of reach of children; wear gloves while changing the cartridge; protect the device and cartridges from heat, flames, and sun; sterilize only the tips and not the body of the device. Do not use the cartridges for any other use than for their intended use with the Cryosuccess.

Safety (continued)

Do not use any other cartridges than those supplied by FI Sales, LLC for use with the Cryosuccess. The use of other cartridges poses a safety hazard and immediately terminates the warranty. Never use the gas cartridges for any other purpose.

Warranty

The Cryosuccess is covered by a 2 year warranty from the moment of delivery to the end user. The warranty is strictly limited to the exchange of defective parts. Dropped units and broken tips are not covered under warranty.

Cartridges are checked several times and undergo very strict quality control. The gas weight is fully guaranteed and a warranty exchange is prohibited. Other claims for damages such as loss of working hours, incorrect treatment and the consequences, incorrect post-treatment and their consequences, as well as the non-observance of the safety instructions are excluded from all warranty and liability claims.



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