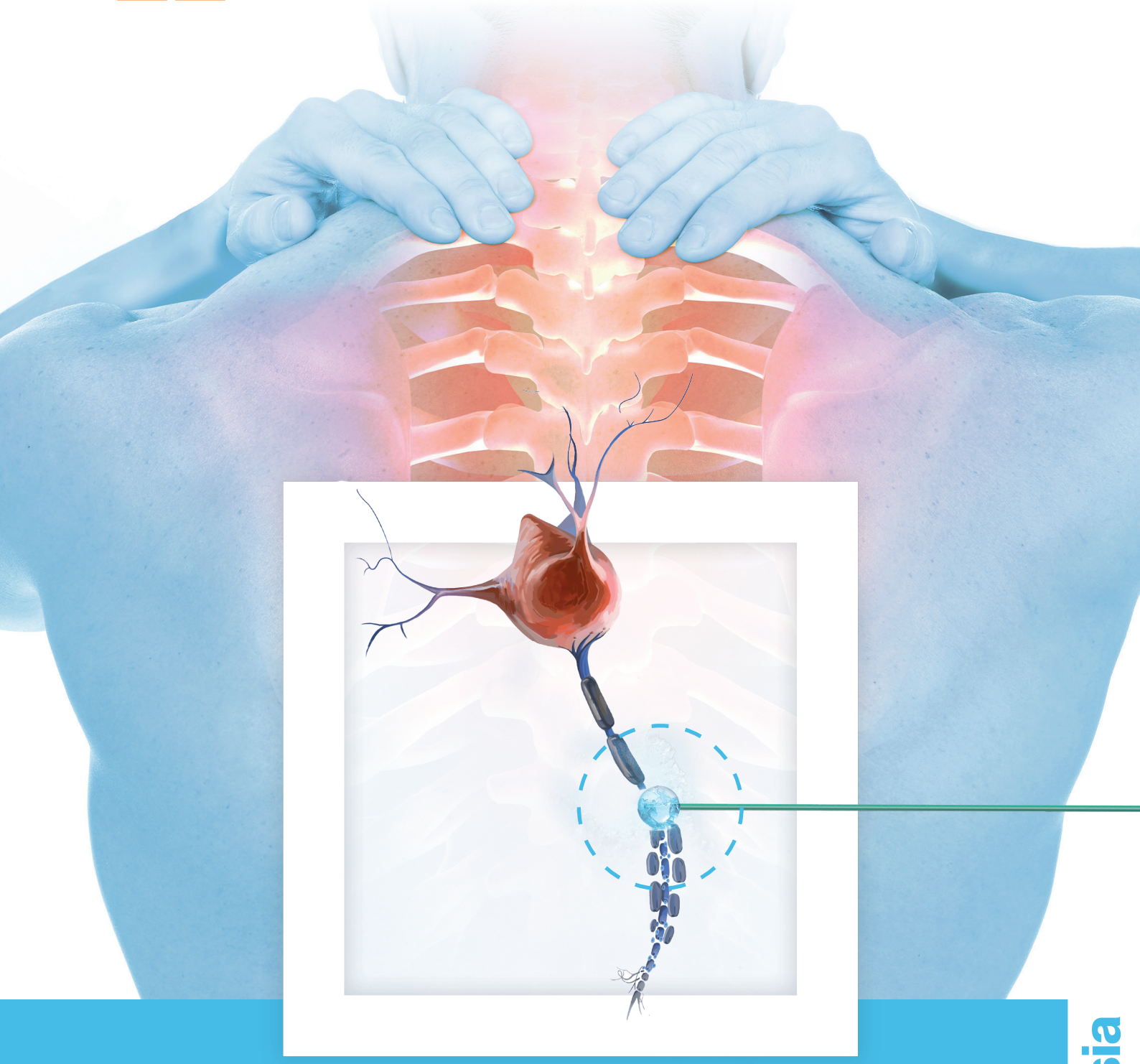
METRUM CRYOFLEX



Meet an efficient approach to

# chronic pain treatment

Cryoanalgesia

**This is a medical device. Use it in accordance with the instructions for use or the label.**

# Chronic pain

affects around **30%** of the European population...

**There are many methods of pain treatment:**

pharmacological, psychotherapy, neuromodulation and mini-invasive techniques, which include **Cryoanalgesia**.

# Life without pain

# Cryoanalgesia

**Cryoanalgesia is a therapeutic method** based on the temporary interruption of the sensory functions in selected structures of the nervous system by application of low temperature.

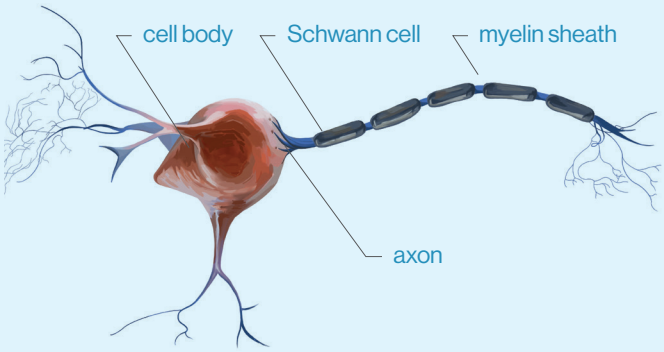
**Cryoanalgesia** does not damage nerve structures permanently, which is why nerve tissues can regenerate slowly with **no risk of postprocedural neuroma**.

**Cryoanalgesia is a minimally invasive and safe procedure** recommended especially when traditional methods prove to be unsatisfactory.

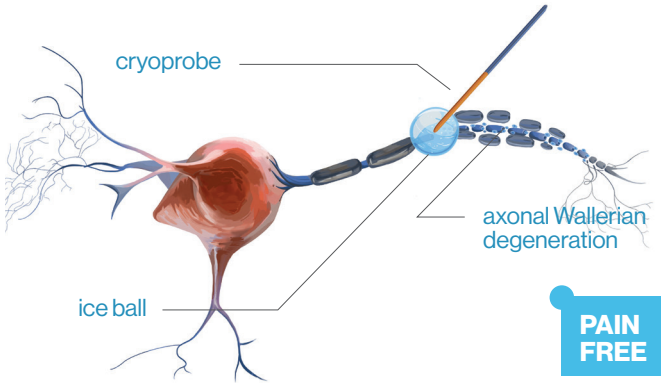
**Cryoanalgesia** is gaining more acceptance as **an innovative method in pain relief**. It uses the process of analgesia, during which the ice crystals created by the cryosurgical system destroy the elements of the nerve tissue carrying pain information.

# Peripherial nerve structure

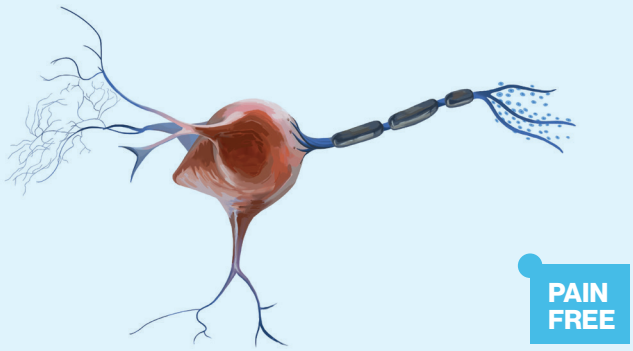
### 1. Peripherial neuropaty



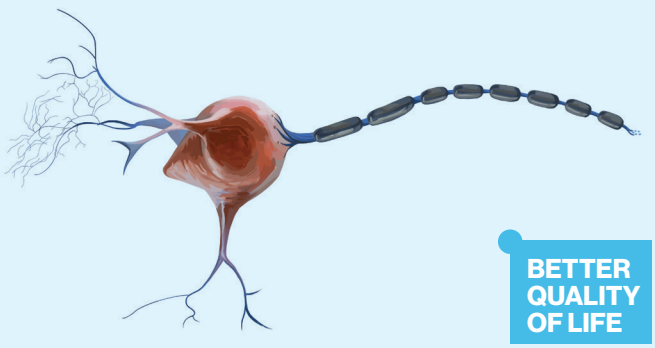

### 2. Interventional Cryoanalgesia




### 3. Axonal nerve recovery process




### 4. Complete nerve recovery




# Axonotmesis

## Mechanism of Cryoanalgesia

- Dedicated for chronic pain VAS over 5
- Dedicated for peripherial sensory and mixed nerves
- Axon degeneration, nerve remain intact
- No risk of neuroma formation
- Complete nerve regenaration from 6 -12 months
- Destroys the function not the structure


# The Advantages of Cryoanalgesia

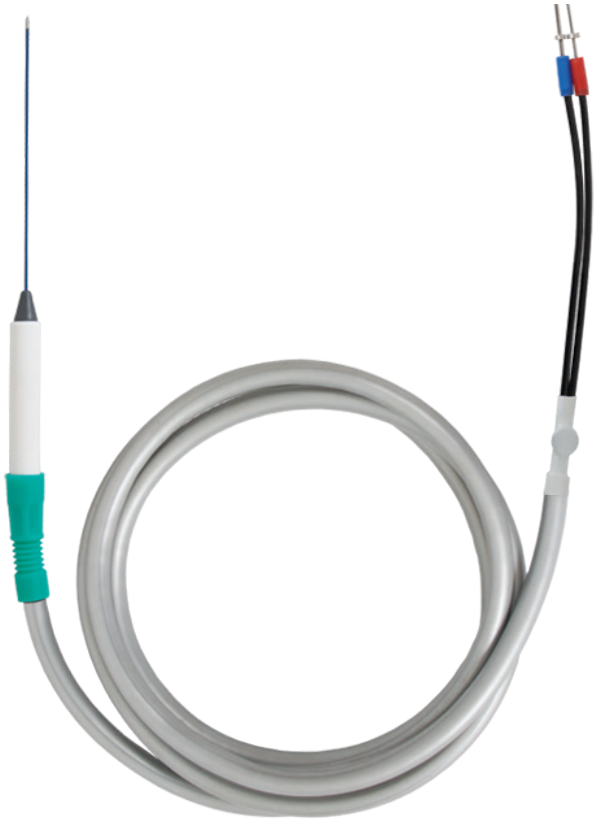
- No neuroma formation - no risk of secondary pain
- Cryoprobe and iceball visible in USG during procedure
- No scar tissue formation
- No risk of vessel proliferation and obliteration
- Destroys the function, not the structure
- Percutaneous procedure, microinvasive under local anesthesia
- Fast return to normal activity – no hospitalization
- Immediate treatment effect
- No more painkillers
- Can be repeated - nerve grows back
- High efficiency: pain reduction from 6 months to 2 years
- Can be performed under USG or X-ray

# Clinical Application

- Facial pain such as trigeminal neuralgia or other non-herpetic neuralgia
- Localized neoplastic pain
- Occipital, suprascapular, ilioinguinal neuralgia and other types of neuralgia
- Degeneration of the intervertebral joints (facet syndrome)
- Pain in the upper limb
- Lower limb pain
- Phantom pain
- Painful neuromas
- Chest wall pain, chest pain after thoracotomy

# Cryoprobe

recommended for USG, CT, X-ray scan



CE 2274

$CO_2$ / $NO_2$
GAS TYPE

STERILE EO
READY TO USE

2
SINGLE USE

DOUBLE PACKAGING

STIM

MICRO CHIP

3 YEARS
STORAGE TIME

# CRYO - S ® Painless
## Device for Cryoanalgesia

### Chip system communication (RFID)

Electronic communication between the probe and the device enables the probe to identify the optimal operating parameters and automatically configure them for the best cryoanalgesia performance.
No manual adjustment of the freezing process is required during the preparation of the probe for treatment or through the procedure. When freezing is complete, the probe defrosts within a few seconds.

### Voice communication

Built-in voice communication for easier device control. A system reporting essential data (procedure time, device status) during the procedure allows full control without taking your eyes off the treatment area.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### Two sources of freezing

The working medium for CRYO-S Painless is carbon dioxide: CO2 (-78°C) or nitrous oxide: N2O (-89°C). Very efficient and easy to use gases are generally available in hospitals for laparoscopy or general anesthesia.

### Built-in neurostimulation

Diagnostic neurostimulation is recommended for percutaneous procedures. It helps to distinguish between sensory and motor nerves and to position the tip of the probe correctly on the nerve. It is recommended when performing percutaneous cryoanalgesia under ultrasound, X-ray or CT guidance.

### Touch screen

The selection of the probe mode, the initiation and termination of the freezing process can be activated by a footswitch or a touch screen, which allows to keep the site of a procedure under sterile conditions.

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