




*cryo***SPHERE**<sup>®</sup>

Provides Temporary Post-Operative Pain Relief



A non-pharmacological/  
non-opioid solution that  
can provide effective post-  
operative pain management  
for several months

AtriCure

# A NEW WAY TO FREEZE OUT POST-OPERATIVE PAIN

## How Cryo Nerve Block (cryoNB) Works

### 1 / HEAT EXTRACTION

The cryoICE system delivers Nitrous Oxide (N<sub>2</sub>O) within the probe at a high rate of speed causing the probe to cool and extract heat from surrounding tissue. When the probe is placed on the intercostal bundle, rapid heat extraction causes the intercostal nerve to freeze inducing a well-described process called Wallerian Degeneration.

### 2 / SCIENCE BEHIND CRYONB

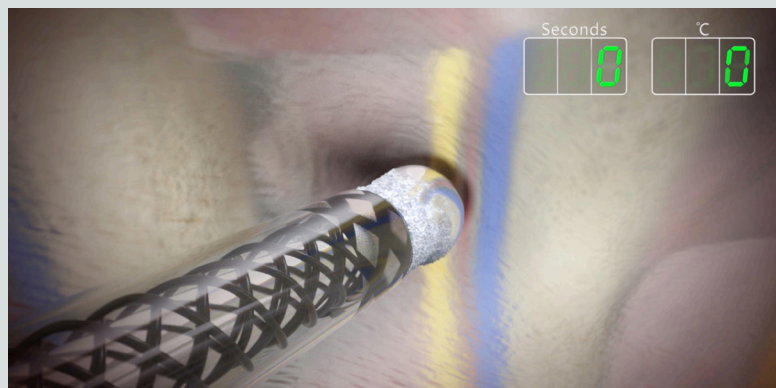
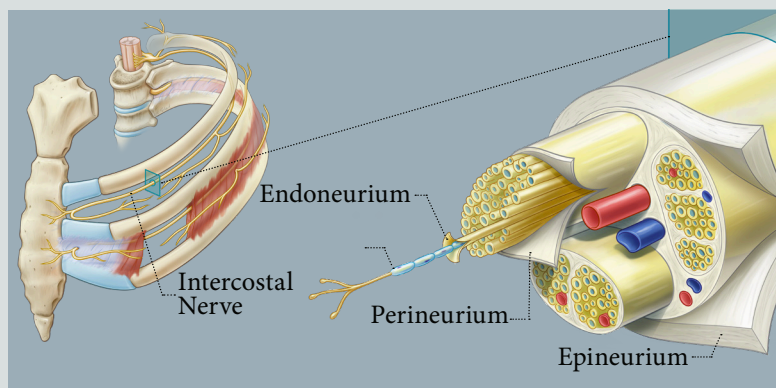
Axons within the intercostal nerve that send pain signals are destroyed distal to the cryoablation site. The tubule structures (epineurium, perineurium and endoneurium) of the nerve remain intact allowing the axons to regenerate and nerve function to resume over the course of several weeks.

### 3 / TECHNIQUE & TECHNOLOGY MATTER

AtriCure consulted with leading pain management experts to develop a specific protocol for applying cryoNB to the intercostal spaces. AtriCure's cryoICE cryoSPHERE cryoablation probes are sterile, single use devices intended for use in blocking pain by temporarily ablating peripheral nerves.

### 4 / ACTIVE DEFROST

Active Defrost allows the probe to be easily removed from the cryoablation site avoiding any inadvertent damage to the tubule structures of the nerve.



**EU Indications:** AtriCure's cryoICE cryoSPHERE cryoablation probes are sterile, single use devices intended for use in blocking pain by temporarily ablating intercostal peripheral nerves.

Please review the Instructions for Use for a complete listing of contraindications, warnings, precautions and potential adverse events prior to using these devices.

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