

Rigid catheter construction
 promotes better navigability and control

1.5 cm heating coil
 achieves focal thermal treatment
 of contained herniation

Integrated thermocouple
 allows for close monitoring
 of temperature

Precise temperature monitoring
 enables aggressive treatment
 of pathology

Targeted Disc Decompression

A new minimally invasive spinal procedure that treats herniated discs directly at the site, giving patients another chance to do the things that make them smile.



The ACUTHERM® Decompression Catheter, in conjunction with the NeuroTherm ELECTROTHERMAL® 20S Spine System, is used to perform Targeted Disc Decompression. Thanks to this system's special features, along with a patented navigation method that ensures close proximity to the target tissue, patients who suffer back and leg pain resulting from contained herniated discs now have an effective, minimally invasive treatment option.

Optimal patient selection criteria

- Inclusion**
- Contained disc herniation < 6mm
 - Leg pain greater > back pain
 - Mixed pattern of back and leg pain
 - Failed conservative therapy

- Exclusion**
- Extruded or sequestered disc
 - Disc height ≤ 50%
 - Spinal stenosis
 - Spinal fracture or tumor
 - Segmental instability
 - Prior surgery at index level

Ordering information

- 7210442 ACUTHERM® Decompression Catheter, 8-pin
- 7209601 Introducer Needle—Gen II standard 6" (box of 5)
- 7210644 ELECTROTHERMAL 20S Spine System includes: generator, footswitch, and power cord

1 Report: Thermal Mapping of Discs Treated with the NeuroTherm Decompression Catheter. Data on file with NeuroTherm.
 2 Volumetric Reduction of Bovine Intervertebral Discs with the use of an Intradiscal Decompression Catheter. Michael Schaufele MD, Nigel Andrews PhD, James Huckle PhD, International Spinal Injection Society, 2004. Accepted for presentation.
 3 Patient Outcome and MRI findings following treatment of Lumbar Disc Herniations with Electrothermal Disc Decompression. Michael Schaufele, MD, Emory University, Atlanta, GA. and David Appleby, MPH, NeuroTherm, Wilmington, MA. Data on file at NeuroTherm, Wilmington, MA.

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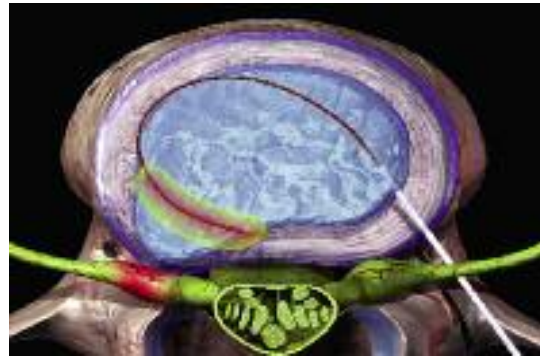
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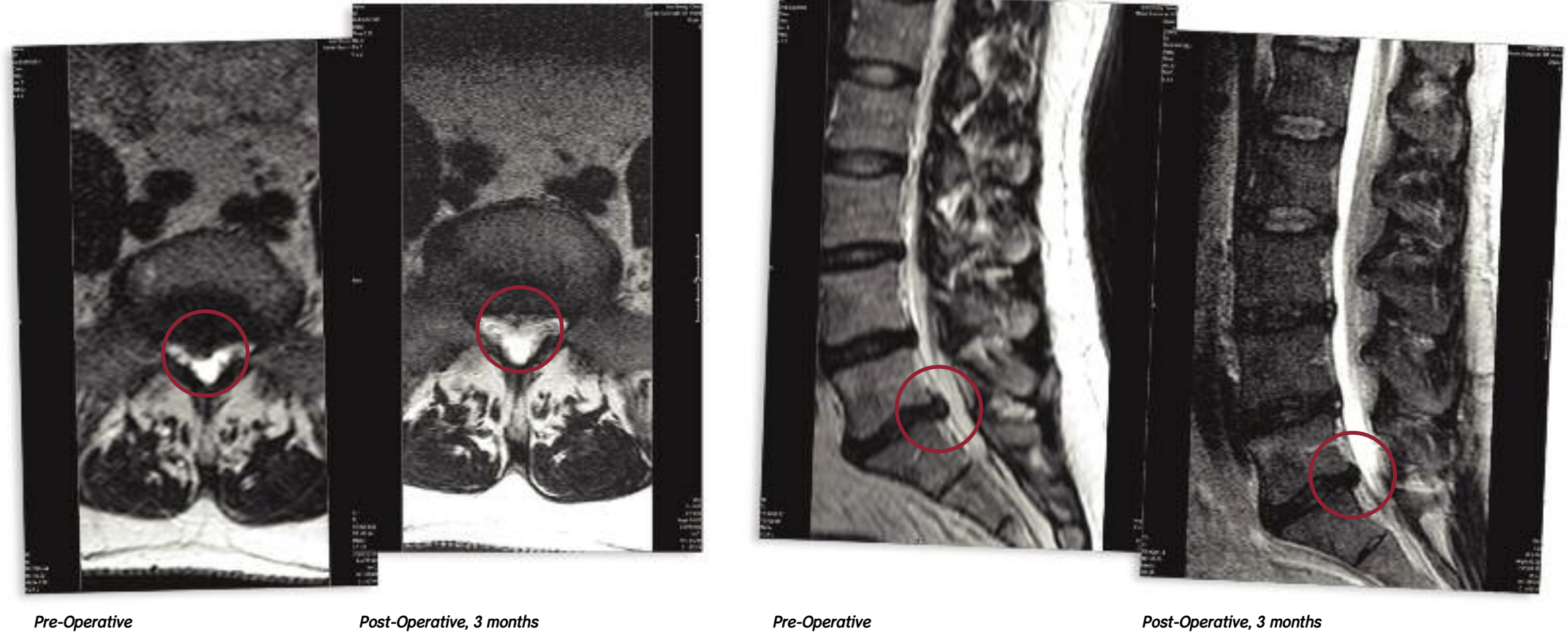
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Targeted Disc Decompression (TDD) is possible due to the ACUTHERM[®] Decompression Catheter, a device that features a heating coil designed to treat the disc herniation directly at the site.

This one of a kind technique offers a more focused treatment as well as improved navigation and placement.



Unlike alternative treatments that target the center of the affected disc, TDD focuses on the actual herniation itself.



Pre-Operative

Post-Operative, 3 months

Pre-Operative

Post-Operative, 3 months

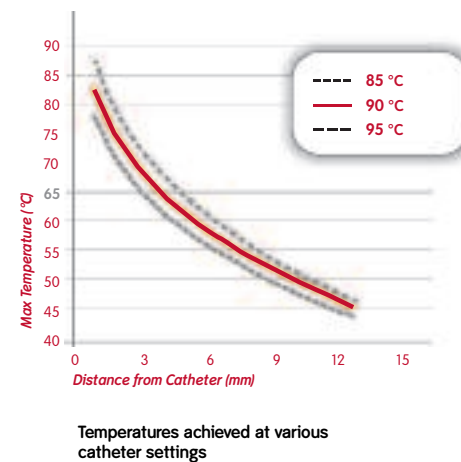
TDD uses thermal energy to treat patients with contained herniated discs who have failed to respond to more conservative treatments like physical therapy, medication and rest.

Scientifically sound

The underlying science of TDD involves the application of heat energy at controlled levels to coagulate the collagen in the disc, causing tissue contraction and a reduced herniation. The ultimate goal is relief of pain for the patient.

Cadaveric studies indicate temperatures of at least 65° C can be achieved in regions up to 5 mm from the catheter. Further data is provided in the chart to the right.

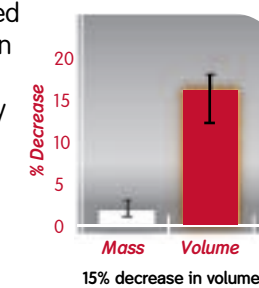
The result is a reproducible method for collagen contraction.¹



Clinically verified

Clinical studies have demonstrated that TDD may result in a reduction of the size of herniations in the disc and a decrease in the severity of back and leg pain suffered by patients.

An analysis of discs following treatment with TDD (right) shows the dramatic decrease in the mass and volume of nucleus pulposus tissue.²



The chart to the right illustrates the significant reduction in Visual Analog Pain Scores (VAS) scores for both back and leg pain resulting from treatment with the procedure.

Also pictured (above) are actual pre- and post-operative MRI images showing a noticeable decrease in the size of the herniation. In a clinical study performed at a leading medical institution, the average decrease in disc herniation was 1.7 mm.³

