



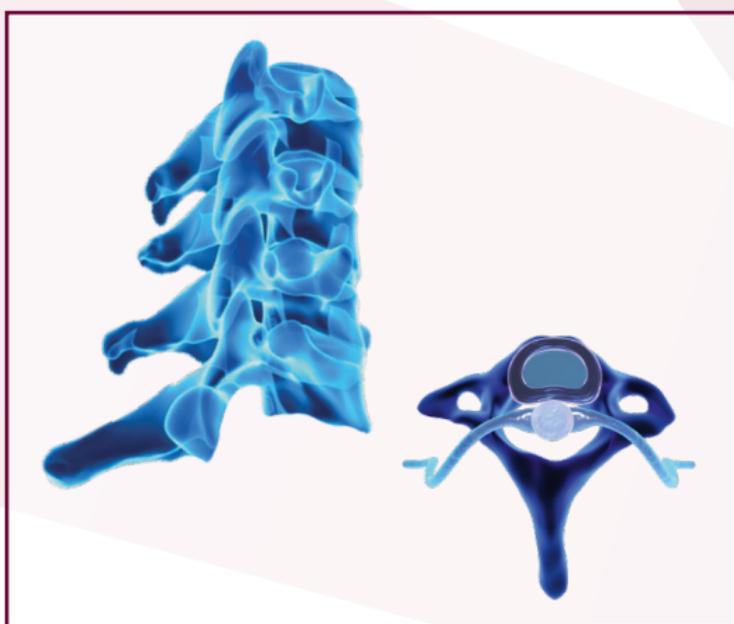
SPINEWAND

# Percutaneous Plasma Disc Decompression

A micro-invasive alternative to major surgery  
for cervical spine disc decompression

# ABOUT CONTAINED DISC HERNIATIONS

The spine is composed of a series of bones called vertebrae. Each of these bones is connected by a disc, made of a tough outer layer called the annulus fibrosus, and a gel-like center called the nucleus pulposus. A healthy disc is like the shock absorber of an automobile, providing a cushion against jolts caused by simple movements like running or jumping. If the protective outer annulus of the disc is damaged by injury or weakened through ageing, a portion can give way to internal pressure causing the gel-like nucleus to either bulge into the annulus or even leak out. This is also called a herniated or slipped disc. When the nucleus material bulges into the annulus but does not break through - this is referred to as a contained herniation.



This information is designed to help you make an informed decision about percutaneous plasma disc decompression as a method of treating symptoms caused by contained disc herniations. Only a doctor can determine whether you are a suitable candidate for this procedure. Please consult your physician.

# TREATING CONTAINED DISC HERNIATIONS

Historically, patients with contained disc herniations have been treated with conservative care including rest, medications, injections and / or physical therapy.

Unfortunately, this does not always provide relief. In the past, people who did not respond to conservative care were forced to live with the symptoms or consider major surgery. If they underwent more invasive surgery, it could take weeks or months to recover, causing a major disruption in their daily lives.

Percutaneous plasma disc compression is a micro-invasive alternative to major surgery that allows the patient to usually go home on the same day of the procedure.

Plasma disc decompression is performed using X-ray guidance to accurately place a micro-cannula (very small needle) into the disc. A patented SpineWand\* is then inserted through the cannula into the center of the disc using Controlled Ablation Technology to remove a very small amount of nucleus tissue. As a result, the disc pressure is reduced, which can ease symptoms.

# WHO IS A CANDIDATE FOR PERCUTANEOUS PLASMA DISC DECOMPRESSION?

The procedure is used to ablate and decompress disc material to treat symptomatic patients with contained herniated discs.

# WHAT ARE THE RISKS OF PERCUTANEOUS PLASMA DISC DECOMPRESSION?

As with any surgical procedure, there are risks involved. Although rare, potential complications accompanying surgery with or without this device may include, but are not limited to, pain at the surgical site, infection, nerve stimulation, inadvertent damage or injury to surrounding spinal tissues, burns, breakage of the wand and / or secondary surgical intervention or treatment to address such complications.

You should discuss these thoroughly with your physician prior to making a decision.



# WHAT ARE THE BENEFITS OF PERCUTANEOUS PLASMA DISC DECOMPRESSION?

- **Micro-invasive; performed using real-time X-ray guidance**
  - General anesthesia is usually not necessary
  - Minimization of complications that may result from open surgery
- **Outpatient procedure**
  - No overnight hospitalization required
  - Lasts usually under 1 hour
- **Rapid recovery time**
  - Patients may go home on the same day of treatment

# WHAT TO EXPECT

## **Before the procedure**

Medical evaluation includes a physical exam. Diagnostic tests, such as MRI (magnetic resonance imaging), steroid injection, or discography may be conducted to diagnose and locate the symptomatic disc herniation and determine if the procedure is appropriate.

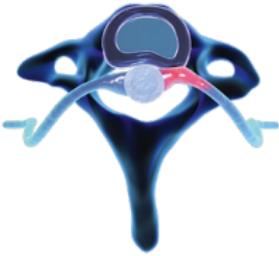
## **During the neck procedure**

Percutaneous plasma disc decompression in the cervical spine requires the patient to lie on their back throughout the procedure, and is typically performed with minimal anesthesia / sedation requirements. A micro-invasive cannula is inserted through the skin and into the disc space. An electrosurgical decompression device, called a SpineWand\*, is then inserted through the cannula into the disc and activated to remove a small amount of nucleus tissue. The device and cannula are removed and the small incision is dressed with a small adhesive dressing.

## **After the procedure**

Patients are required to remain for observation for 1 to 2 hours after the procedure. Typically, patients are then discharged and asked to rest for 1 to 3 days. Your physician may also issue you a soft cervical collar to help remind you to avoid certain activities for a few days, such as running, jumping, or holding your neck in a flexed position for too long. In most cases, symptoms caused by the disc herniation are gone or diminished within weeks. A patient may experience some discomfort or bruising where the cannula was inserted. After about 1 week, patients can usually participate in physical therapy which is important for a full recovery, but your physician will map out a comprehensive recovery schedule, detailing when you are allowed to engage in physical activity and return to work.

# PERCUTANEOUS PLASMA DISC DECOMPRESSION PROCEDURE STEPS

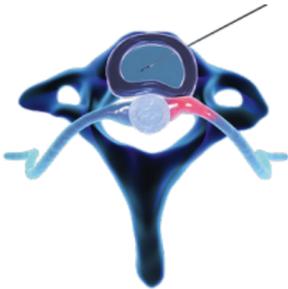
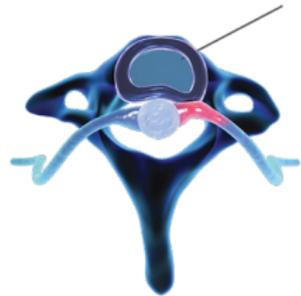


## Before the procedure

A contained disc herniation causing pressure on the nerve root is often the source of pain and/or loss of muscle strength.

## During the neck procedure

Initial entry.

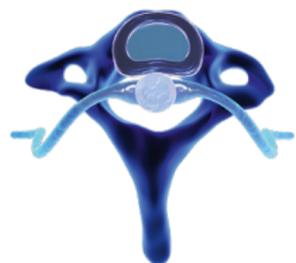


## Decompression

A patented SpineWand\* device is inserted through the cannula, into the disc, removing a small amount of tissue, sufficient to remove the disc bulge pressing onto the nerve root.

## After the procedure

Once pressure on the nerve is reduced, it can recover over time, thus relieving symptoms.





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