

IntraDiscal ElectroThermal Therapy

Introduction

IntraDiscal ElectroThermal Therapy using IntraDiscal catheter is a fairly recent addition to the treatments for patients with painful degenerative disc disease. FDA has cleared the device. This technology provides a treatment in a minimally invasive manner. The IntraDiscal catheter delivers thermal energy directly to the disc via a resistive heating coil. It is designed for creating temperature-controlled coagulation and for shrinking collagenous tissue. This in turn is expected to promote collagen shrinkage relieving pressure of a disrupted disc, to enhance structural integrity of the disc and reduce disc volume, to cauterize neural receptors responsible for pain inside the disc.

How is it done?

The procedure is performed in X-Ray suite. Intravenous sedation is available for the procedure and is recommended. A nurse who also monitors your vital signs does this. The level of sedation is titrated to your comfort but an attempt is made to avoid very heavy sedation since feedback from you is important for a safety of a procedure. Firstly, sterile conditions are achieved and then local anesthetic is used to numb your skin and deeper tissues. Secondly, introducer needle is placed into the painful disc and then IntraDiscal catheter is advanced through it under the X-Ray guidance. Once an appropriate catheter position is confirmed the generator delivering the thermal energy is activated. The temperature is increased gradually and it is expected to reproduce your usual symptoms, however you have to report any new pain and /or pain in the legs right away. The therapy level can be adjusted to accommodate for any severe or unusual discomfort. According to current recommendations, the ideal temperature to be reached is 80 to 90 degrees C for 4-6 min.

What is the recovery like?

Most patients will experience an increase in their typical pain (back, back and leg) after procedure. It usually subsides over the first 1-14 days. The improvement in your symptoms may or may not be fast. If only one disc was treated you should expect to feel the results within 4-12 weeks. Two disc treatments can take longer, 6-20 weeks. The pain medication may be prescribed to you to help with postoperative discomfort. You will be given written guidelines for activity restrictions following the procedure. It will include wearing a lumbar corset within first 6 weeks while collagen restructuring takes place. It is very important to actually wear it and this cannot be overemphasized. Between 8-12 weeks, depending on your comfort level, you should start physical therapy program. Gradual increase in exercise regimen is important and is designed to assure your back stabilization. It will continue at a minimum of 6 month.

Benefit Vs Risks

Efficacy of this procedure is still being evaluated but according to published reports and interpersonal physician's communications approximately 70% of the patients are satisfied with their outcome at 6-month follow-up. Majority of those patients report an improvement in general overall activity levels. About 30% of the patients feel the same or worse than before undergoing the procedure. In general IDET is a safe, minimally invasive therapy providing the physician with a definitive approach to addressing pain from the painful disc. However, you have to be aware of the potential risks of this procedure so you can make an informed decision. As discussed above temporary worsening of pain can occur and can sometimes last for longer than usual 2 weeks. Infection of the disc is a significant complication though very rare. You will be given intravenous and IntraDiscal antibiotics to prevent it. But any intense unusual pain in the back, fever and /or chills should be reported immediately. Other potential but rare complications include infection and /or bleeding in the spinal space sometimes even requiring surgery,

trauma of the nerve roots exiting spinal cord. The alternative to this procedure is surgery, usually discectomy and /or fusion. Whether you are a good candidate for this should be discussed with your surgeon.