

LASER SMART^m NS

NEUROSURGERY

...BE SMART... START AND FEEL THE DIFFERENCE!



ALL - IN - ONE

PERCUTANEOUS LASER DISC DECOMPRESSION - PLDD PROCEDURE

PLDD (Percutaneous Laser Disc Decompression) is a minimally invasive procedure that falls into the category of percutaneous intervertebral surgeries with the aim to significantly reduce the patient's pain and recover neurological deficit.

Percutaneous Laser Disc Decompression (PLDD) is a type of surgery in which a laser probe is inserted into the intervertebral disc space under MRI or C-arm guidance and laser energy applied for achieving decompression and neuromodulation thereby relieving the pain.



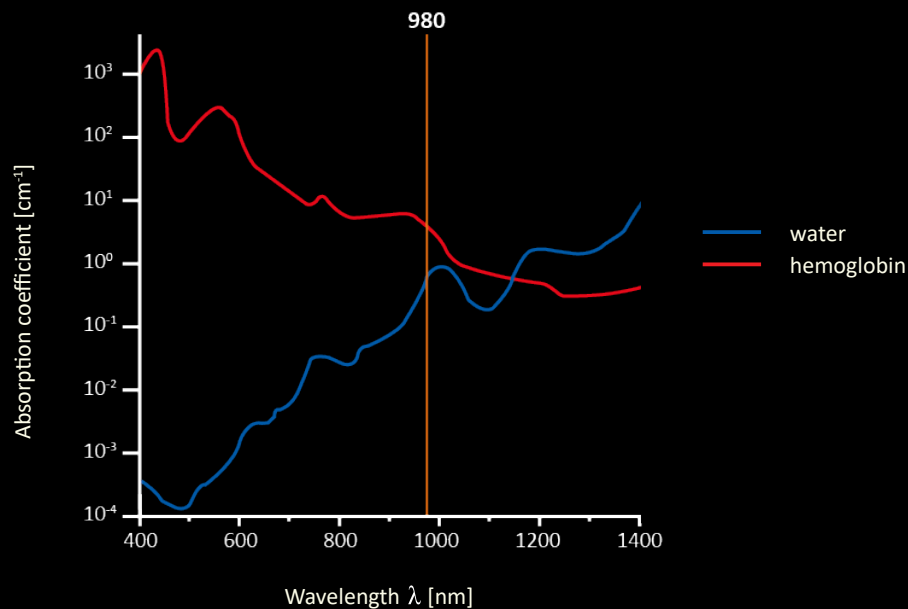
PLDD is a minimally invasive procedure typically used to treat patients who have medium-sized slipped discs. During the procedure a laser probe is inserted into the intervertebral disc space to deliver energy at degenerated tissues. The aim is to vaporize unwanted disc material, around 20-30 mg, to reduce intradiscal pressure. This causes the disc hernia or protrusion to deflate and decompresses the nerve, ultimately relieving any pain or discomfort caused by the condition.

MINIMALLY INVASIVE LASER TREATMENT

- Day case procedure
- Local anaesthesia
- More precise treatment
- Less bleeding and pain
- Minimally invasive
- Short time operation
- Excellent patient outcomes
- Minimal recovery time
- Minimal scar tissue formation
- Can be performed on an outpatient
- High success rate
- Can treat several intervertebral discs disorder at the same time
- Less or no complication risk after the surgery



WHAT WAVELENGTH IS RECOMMENDED?



Diode lasers are among the most efficient converters of electrical energy into laser light. Various tissue reactions can be induced, such as coagulation, vaporization or welding. Diode lasers offer relatively deep tissue penetration.

By changing laser parameters, different tissue effects can be generated. This opens a broad range of possible indications.

SMART^{MS} is a laser system that incorporates a diode source with a wavelength of 980nm combining cutting edge technology with ease of use for effective minimal-invasive percutaneous disk decompression. The 980nm laser radiation is perfectly absorbed by the hemoglobin and water allowing **SMART^{MS}** to evaporate and coagulate thanks to an optical and non-thermal effect. The advantage of optical ablation is that it causes less harm to the surrounding tissue and creates a more solid and lasting haemostasis producing permanent results for the patient. **SMART^{MS}** is a step forward in laser technology in the PLDD field allowing tissue vaporization, ablation and a controlled penetration depth.

WHY LASOTRONIX LASER?

- Over twenty years of experience in laser technology
- User friendly software
- Predefined therapy protocols which can be modified and assigned to a patient
- Lowest operating costs
- Very compact and small-sized device
- Intuitive touch screen panel
- Multiple safety features
- Economical in use
- Low maintenance cost, highly reliable diodes
- Excellent portable packing



TOUCH SCREEN INTERFACE



HANDY GRIP



ACCESSORIES



COMFORTABLE WORKSTATION



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94801610 v.01 11.2022