



# FiberLase CR

Laser for Pain Therapy and cartilage regeneration



**FiberLase CR** is based on a fiber laser with a wavelength of 1.55 microns and a diode laser with a wavelength of 0.98 microns and is designed for pain therapy, as well as for use in neurosurgery (vertebrorology), traumatology and orthopedics.



- ▶ Pain therapy
- Intervertebral disc reconstruction

▶ Cartilage regeneration of joints



# Distinctive features

- ▶ Relief of pain syndrome of different localization
- Wide range of applicators for the treatment of pain
- ▶ Minimally invasive surgery
- Outpatient surgery option
- ▶ Shorter hospital stays

## Pain therapy

- Spot size

- Exposure depth



## Freezable applicator

Ø - 15 mm 🛨 to 50 - 60



## **Spacer** applicator

Ø - 15 mm to 20



## Contact applicator B1



## Contact applicator B2

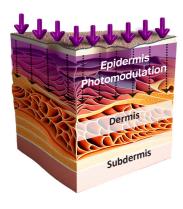


### Tunable applicator

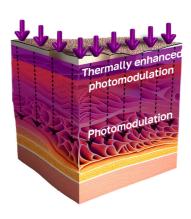
Located at a distance of 15 cm from the patient's skin, pre-designated spot size from 35 mm to 130 mm.

## Advantages of the technology

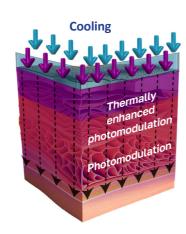
FIBERLASE CR feature is the possibility to maximize the effective penetration of laser radiation into the tissue in order to eliminate the pain syndrome.



Low Intensity laser therapy



**High Intensity** laser therapy



**High Intensity** Laser Therapy with Cooled Applicator

# Pain therapy Minimally invasive regeneration of cartilage tissue





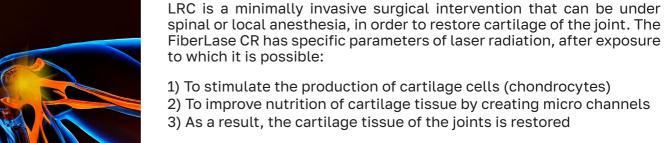
## Laser reconstruction of the intervertebral discs (LRD)

LRD - cartilage reconstruction by creating laser-induced microdamages in the cartilage tissue, provoking an increase in synthetic activity of chondrocytes.

#### Benefits:

- Minimally invasive procedure.
- Performed under local anesthesia.
- Can be performed on all parts of the spine.
- Minimal rehabilitation period.
- Intervention time < 25 minutes.
- Performed as a preventive measure in early stages.
- Cartilage tissue regeneration.

## Laser reconstruction of cartilage in the knee joints (LRC)



1) To stimulate the production of cartilage cells (chondrocytes)

- 2) To improve nutrition of cartilage tissue by creating micro channels
- 3) As a result, the cartilage tissue of the joints is restored

#### Benefits:

- Minimally invasive procedure.
- Minimal recovery time.
- Intervention time < 30 minutes.
- No incisions and no scars.
- Cartilage tissue regeneration.

## **Optical characteristics**

Wavelengths, µm	0,98	1,55
Max power, W	25	10
Pilot wavelengths, µm	0,65	0,52

#### **Technical characteristics**

Fiber diameter, µm	365 550
Supply voltage, V	220 ± 10%
Dimensions (H × W × D), mm	272 × 272 × 273
Weight, kg	10



# WORLD LEADER IN THE LASER INDUSTRY

VPG LaserOne LLC (formerly IRE-Polus LLC) is a Russian company established by an outstanding Soviet scientist, Valentin Pavlovich Gapontsev, the founder of the international scientific and technical IPG Photonics Corporation.

VPG LaserOne is a globally recognized leader in the field of fiber lasers and amplifiers, as well as devices and systems based on them. Drawing on deep expertise and decades of experience in laser equipment production, VPG LaserOne LLC designs and supplies medical laser devices and surgical fiber for a wide range of applications.

VPG LaserOne develops advanced medical laser devices through a full-cycle process that includes device engineering, development of clinical application protocols, in-vitro research in its proprietary laboratory and clinical trials conducted in collaboration with leading clinical centers.





25
CLINICAL CENTERS FOR IN-VITRO AND IN-VIVO STUDIES



>1 million
PATIENTS TREATED WITH
VPG LASERS IN 2024



>2000
MEDICAL LASER SYSTEMS
INSTALLED WORLDWIDE
SINCE 2017



