

# PRESS INFORMATION



**biolitec biomedical  
technology GmbH**  
Otto-Schott-Str. 15  
07745 Jena  
www.biolitec.de

## **Confusion after general anesthesia: Minimally invasive varicose vein laser procedures such as ELVeS® Radial® from biolitec® reduce risk**

**Up to 30% of older patients are affected by the postoperative confusion "Delir" – General anesthesia one of the biggest risk factors – With new minimally invasive therapies such as the varicose vein laser therapy ELVeS® Radial® from biolitec® only local anesthesia is necessary**

Jena, 10th January 2018 – The operation is initially considered to have been well tolerated, but one day later some older patients appear confused for a longer period after waking up from general anesthesia. This situation, which occurs in up to 30% of elderly patients after general anesthesia, is reminiscent of dementia, from which patients over 70 years of age in particular recover only with difficulty or not at all. It is the so-called "transit syndrome" or "delirium" with phases of disorientation, confusion, physical restlessness, delusions and hallucinations. Some of those affected even remain in need of long-term care. For older patients in an intensive care unit, the risk of a "delir" during longer operations with general anesthesia increases up to 80%.

New minimally invasive surgical methods such as the ELVeS® Radial® laser procedure of biolitec® for varicose veins can now be performed under local anesthesia. This eliminates general anesthesia, which is considered to be one of the biggest risk factors in "delir". The intervention to remove varicose veins is therefore a less risky and gentler alternative to the conventional "stripping" method, which is often performed under general anesthesia.

The modern ELVeS® Radial® therapy from biolitec® is already being successfully applied throughout Germany as a minimally invasive treatment option for pathologically dilated veins (varicose veins). The attending physician uses a light-guiding ELVeS® Radial® 2-ring fiber that is inserted through a small incision in the diseased vein. The varicose vein is closed by means of a laser through the two-phase annular radiation of the special fiber from the inside, without attacking the surrounding healthy tissue. After the treatment, which usually lasts only 30 to 40 minutes, the patients are quickly back on their feet and can return to their usual activities.

The new minimally invasive ELVeS® Radial® procedure is used and recommended by more and more practicing phlebologists and surgeons to avoid "delir" through general anesthesia after varicose vein surgery.

# PRESS INFORMATION



**biolitec biomedical  
technology GmbH**  
Otto-Schott-Str. 15  
07745 Jena  
[www.biolitec.de](http://www.biolitec.de)

Patients can find further information on the gentle laser therapy of biolitec® on the website [www.info-varicose-veins.com](http://www.info-varicose-veins.com).

## **To the company:**

biolitec® is one of the world's leading medical technology companies in the field of laser applications and the only provider with all relevant core competencies – photosensitizers, lasers and fiber optics – in the field of photodynamic therapy (PDT). In addition to the laser-assisted treatment of cancer with the drug Foscan®, biolitec® researches and markets minimally invasive, gentle laser procedures. ELVeS® Radial® (Endo Laser Vein System) is the world's most widely used laser system for treating venous insufficiency. The new LEONARDO® diode laser from biolitec® is the first universally applicable medical laser with a combination of two wavelengths, 980 nm and 1470 nm, which can be used in all disciplines. The innovative XCAVATOR® contact fiber in conjunction with the LEONARDO® DUAL 200 Watt laser in urology enables gentle treatment of benign prostate hyperplasia (BPH), for example. The LEONARDO® Mini laser, which weighs only 900 g, has been specially developed for mobile applications. Gentle laser applications in the fields of proctology, ENT, gynecology, thoracic surgery and pneumology are also part of biolitec®'s business field. Further information is available at [www.biolitec.com](http://www.biolitec.com).

## **Press contact**

biolitec biomedical technology GmbH  
Jörn Gleisner  
Phone: +49 (0)3641 / 5195336  
Fax: +49 (0)6172/27159-69  
E-mail: [joern.gleisner@biolitec.com](mailto:joern.gleisner@biolitec.com)