

# PRESS INFORMATION



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## **New study: Increased risk of thrombosis among patients with varicose veins – Laser therapy ELVeS® Radial® 2ring especially for high-risk varicose vein patients**

**Patients with varicose veins have four to five times higher risk of thrombosis – New study from Taiwan with more than 200,000 participants shows connection – Risk of pulmonary embolism in conjunction with venous disease also increased – ELVeS® Radial® 2ring method by biolitec® particularly suitable for high-risk patients with varicose veins**

Jena, June 12, 2018 – Longer flight or car journeys, sedentary activities and sitting with bent legs for long periods have an impact on the blood flow. This is sometimes followed by swollen and aching legs. In unfavorable cases, this may even result in thrombosis: a blood clot or thrombus, which can cause pain and, in the worst case, pulmonary embolism. A visit to the doctor is inevitable in case of thrombosis.

A connection with the occurrence of thrombosis has now also been discovered concerning varicose veins. Varicose veins are common, but rarely associated with serious health risks.

However, a new study\* published in February 2018 in Taiwan has shown that there is an association between the presence of varicose veins and the future development of deep vein thrombosis. The data basis for the study was compiled from a Taiwanese health insurance program.

The aim was to examine the connection between varicose veins and increased risk of deep vein thrombosis, pulmonary embolism or peripheral artery disease. Over 200,000 patients diagnosed with varicose veins or treated for varicose veins have been examined during the study. The control group without varicose veins was the same size.

In the group of varicose vein patients, the risk of thrombosis was five times higher than in the group without varicose veins – regardless of sex and age. The study also revealed a 70% higher risk of pulmonary embolism. In the first year after diagnosis, the risk of thrombosis was particularly high, presumably because those affected seek medical help only in cases of severe suffering and have not yet received treatment.

It can be assumed that varicose veins are a sign of a damaged vascular system with an increased risk of inflammation and thrombosis. In the event that acute and chronic venous diseases are diagnosed, the patients should discuss the personal risk with their doctor.

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If it turns out that the removal of varicose veins is medically advisable, the minimally invasive therapy with the **ELVeS® Radial® 2ring method** of biolitec® is also particularly suitable for high-risk patients. With the **ELVeS® Radial®** method, the surgeon removes the varicose veins with a very fine laser fiber. The specially developed two-phase ring-shaped radiation of the fiber closes the vein from the inside, protecting the surrounding healthy tissue. The treatment is carried out within a short time and usually without general anesthesia. In addition, it enables patients to resume their lifestyle habits quickly.

Patients can find further information on the gentle laser therapy by biolitec® on the website [www.info-varicose-vein.com](http://www.info-varicose-vein.com). Information on doctors who apply the ELVeS® Radial® method is available to patients via the e-mail address [post@info-varicose-vein.com](mailto:post@info-varicose-vein.com) and by telephone via the biolitec® hotline +49 6172 27159-11.

\*ChangSL et al. Association of Varicose Veins With Incident Venous Thromboembolism and Peripheral Artery Disease. JAMA 2018; 319:807-17

A retrospective cohort study using data from the Taiwanese health insurance program. From January 01, 2001, to December 31, 2013, 212,984 varicose vein patients aged 20 years and older and a control group of the same number of patients without varicose veins have been included and compared. Patients previously diagnosed with deep vein thrombosis (DVT), pulmonary embolism (PE) or peripheral artery disease (PAD) were excluded. The follow-up ended on December 31, 2014.

### **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).

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