

LEONARDO[®]

Universal and ingenious

A blue circular graphic containing white text.

overview
of all
applications



- Cutting
- Vaporization
- Tissue shrinking
- Coagulation
- Thermoablation
- Dual wavelength laser individually selected or blended

LIFE TULA® DUAL

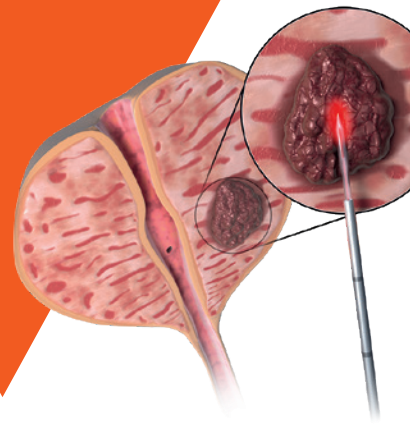
Trans urethral laser ablation of recurring bladder tumors

FLA

Focal laser ablation of prostate tumors

Minimally invasive laser therapy of BPH

Our specialty fibers XCAVATOR® and TWISTER are optimized for the safe, precise and efficient treatment of benign prostate hyperplasia. TULA® DUAL offers a technique using flexible cystoscopy for the treatment of bladder tumor under local or even no anesthesia in outpatient settings. The combination of real-time prostate Magnetic Resonance Imaging (MRI) with Focal Laser Ablation (FLA) has led to a new and higher quality of prostate tumor treatment without collateral damage to sensitive structures.



Advantages XCAVATOR®

- Unique glass tip makes the XCAVATOR® as the first choice treating prostate glands from small to quite large
- Increased contact surface area results in a wider area of tissue resection
- Efficient vaporization, coagulation and resection
- Specially designed resectoscope decreases likelihood of costly optic damage
- Optimized field of view due to vapor bubbles concentrated at fiber tip only
- Tissue resection with possible histological diagnosis
- Short learning curve

Advantages TULA® DUAL

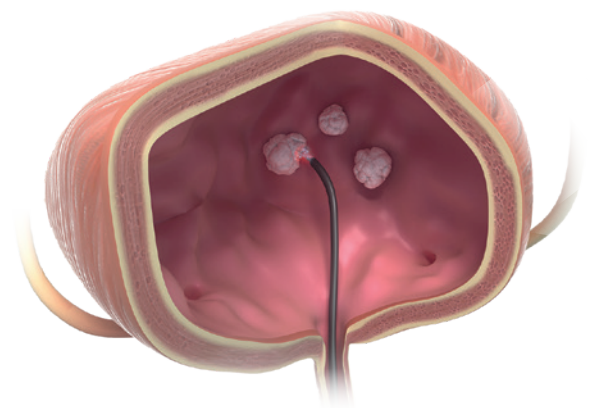
- Avoidance of the obturator-nerve reflex
- Specially designed fibers for best results
- Controlled and focussed penetration depth with less thermal spread
- Atraumatic fiber tip enables a smooth insertion and protects the working channel
- Dual concept for a matched penetration depth of tumor

Advantages TWISTER

- Increased fiber tip surface area for fast and efficient ablation
- Contact mode for tactile feedback
- Increased control of the fiber tip
- Excellent hemostasis
- Short catheter time and fast recovery
- Cystoscope compatibility in line with TWISTER L

Advantages FLA

- MRI and Thermometry guided laser ablation
- Very defined and controlled round- or olive-shaped ablation zone within the prostate tumor
- Without any additional fiber cooling
- Local anesthesia



ELVeS® Radial®

Endovascular laser ablation

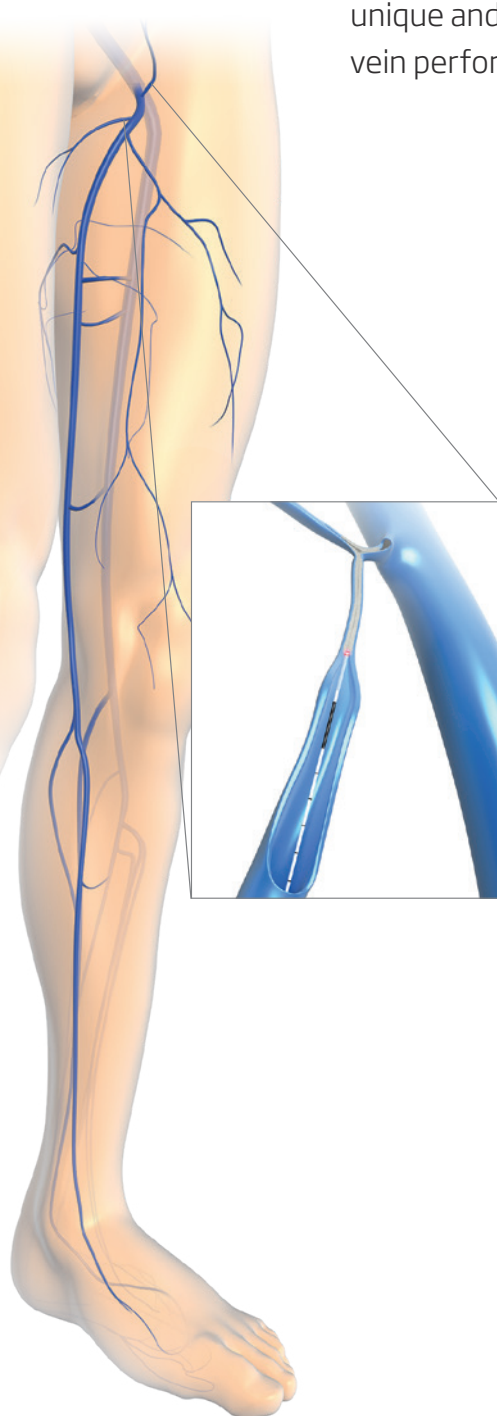
Minimally invasive laser therapy of venous insufficiency

The ELVeS® Radial® 2ring procedure offers the optimum treatment solution for an effective and gentle endovenous laser therapy and is setting new standards for patients and users. Delivering homogenous laser emission based on an unique and patented distal design, ELVeS® Radial® 2ring minimizes the risk of vein perforations and assures high echogenic visibility.

Applications

- Great saphenous vein
- Small saphenous vein
- Tributary veins
- Perforators
- Recurrences

The ELVeS® Radial® 2ring procedure is performed on an outpatient basis under ultrasound guidance and Tumescent Local Anesthesia (TLA). However, some centers prefer to work without TLA using a sensory femoral nerve block or a mild sedation with some reported advantages (see below). Following percutaneous entry into the saphenous vein, the ELVeS® Radial® 2ring fiber is advanced towards the saphena-femoral junction. The laser procedure is carried out along the entire length of the incompetent vein under continuous pull back of the ELVeS® Radial® 2ring fiber. The complete treatment takes about 30 minutes; patients can return to normal activities immediately. Bilateral ELVeS® Radial® 2ring treatments or combined GSV and SSV procedures can be performed during the same session.



LHP[®]

Laser Hemorrhoidoplasty

Minimally invasive therapy for hemorrhoids

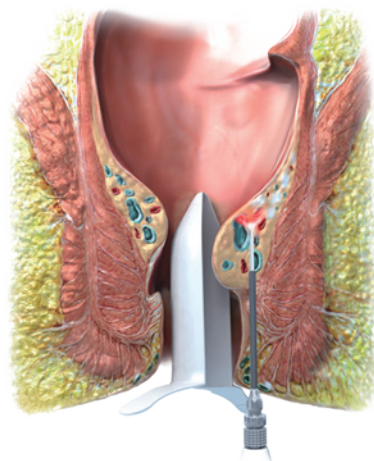
This approach is used for the treatment of advanced hemorrhoids under appropriate anesthesia. The energy of the laser is inserted centrally into the hemorrhoidal node. By this technique the hemorrhoid can be treated according to its size without causing any damage to the anoderm or mucosa.

Applications

- Hemorrhoids – Stage II – IV

Advantages

- Less pain
- Outpatient (no hospitalization)
- No stitch
- No open wound
- No stenosis
- No incontinence
- No touch of anoderm
- No foreign body insertion (no clamp complications)
- Less complications
- Several repetitions or combination with other methods possible



FiLaC®

Fistula-tract Laser Closure

SiLaC®

Sinus Laser ablation of the Cyst

Minimally invasive treatment for anal fistula and sinus pilonidalis

The aim is to gently remove the fistula tract without damaging the sphincter. Thus, any parts of the muscle are preserved to a maximum and incontinence is avoided. SiLaC® is the ideal treatment to heal the sinus tract, preserve the overlying skin and prevent recurrence.



Treatment Principle

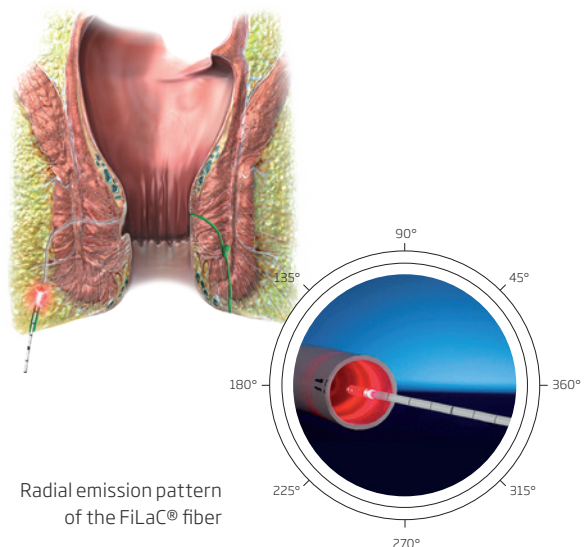
- Sphincter-saving technique
- Closure (shrinkage) of fistula tract with a Radial Laser Fiber (360°)

Advantages

- Destruction of the epithelial layer and hence direct collapsing of the fistula tract
- Optimised protection of the muscle(s) – since no cutting, no excision
- Can be combined with other forms of therapy

Other possible proctology applications of the biolitec® laser and fibers

- Sinus pilonidalis
- Skin tags
- Removal of polyps
- Condyloma
- Fissures



Radial emission pattern of the FiLaC® fiber

Thoracic Surgery and Pneumology

Minimally invasive laser surgery of
lung metastases and bronchial tumors

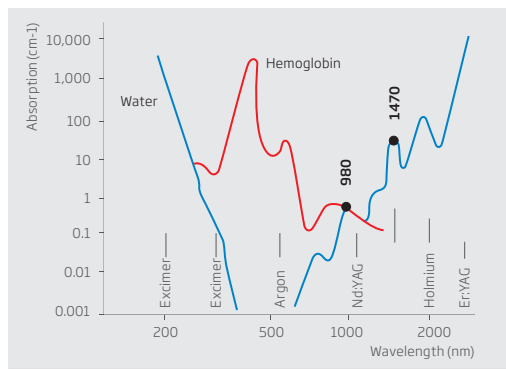
Applications

Examples for open surgery and laser assisted VATS
(video assisted thoracoscopic surgery/ Uniportal
VATS)

- Metastasectomy
- Vaporization of tumors (carcinomas)
- Wedge excision of lung tissue
- Resection of multiple and deep lung metastases
- Recurring metastases and tumors
- Hemostasis and sealing of fistulas
- Adhesiolysis
- Tissue resection for histological examination

Pneumology

- Coagulation and ablation of endobronchial
tumors and stenoses
- Remove of bronchial obstructions and fistulas
- Separation of tracheal stenoses
(all treatments are done with rigid or
flexible endoscopes)



DUAL wavelength
980 + 1470 nm
- new approach and
progress in Thoracic
Surgery

Benefits

- Cut and coagulate simultaneously
- Sealing properties provide smooth
tissue surface
- Parenchyma-saving and lobe-sparing
precise resection
- Deep and centrally located metastases
can be exposed
- Re-treatment is possible with
recurring metastases
- Precise resection of multiple
metastases in only one procedure
- Best hemostasis
- Post-operative drainage can be
removed shortly after treatment



HOLA®

Hysteroscopic outpatient laser applications

ELLA®

Endometriosis laparoscopic laser applications

Minimally invasive laser therapy in Gynecology

The innovative biolitec® laser system with its high tech laser fibers offers a wide range of applications in gynecology. Using standard diagnostic hysteroscopes and specially designed fibers, polyps and myomas can be easily removed with no or minimal anesthesia. Here the biolitec® HOLA®, ELLA® and minimal invasive surgery applications in gynecology:

- Myomas
- Polyps
- Adhesions
- Endometriosis
- Septotomy
- Cysts
- Condylomas
- Conization
- Salpingectomy

Advantages

- Minimally invasive procedure easy and quick to perform
- Versatility using your standard instrumentation
- Local or minimal anesthesia requirements
- Extreme cutting precision (red light)
- Very good hemostatic capacity
- Reduced bubbles production
- No electrical interferences



PLDD

Innovative microsurgical solution for percutaneous laser disc decompression

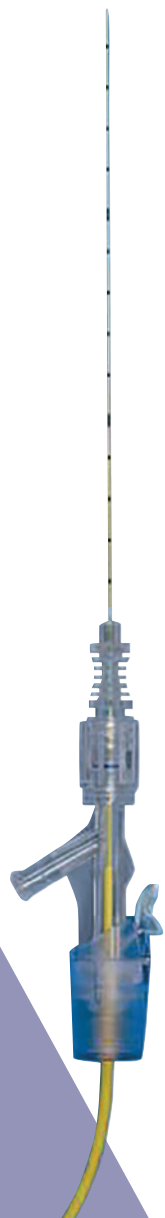
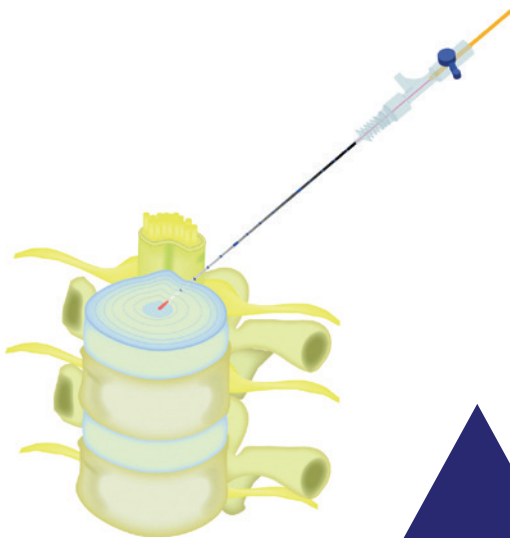
Disc decompression achieved through denaturation of the nucleus by means of laser energy is an accepted method for elective treatment in specific pathological conditions.

Treatment Principle

- Contained herniated lumbar discs
- Contained herniated cervical and thoracic discs

Advantages

- Excellent tissue interaction
- Micro-invasive percutaneous access
- The procedure is associated with minimal pain
- It can be carried out under local anesthetic
- No risk of scarring
- A faster return to normal activities: In most cases, patients do not need to stay at a rehabilitation clinic



ENT

Minimally invasive treatment for ENT

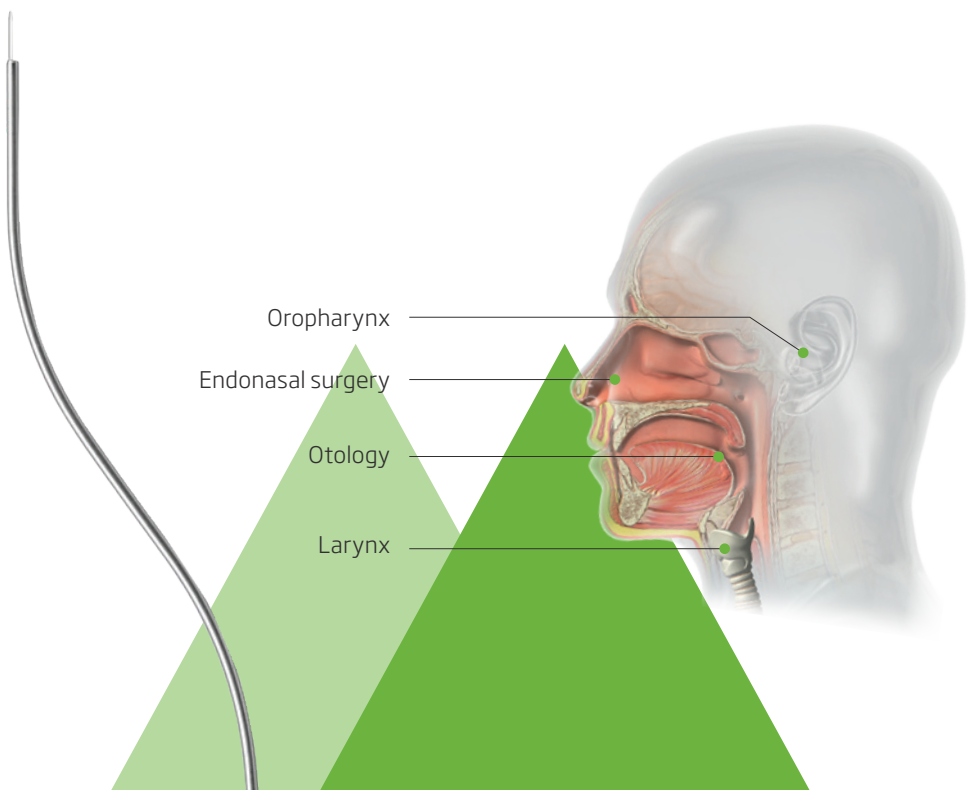
The biolitec® laser and the fiber systems have a compact, maintenance-free design for effective and safe use in the ENT surgery.

Applications

- Endonasal surgery
- Oropharynx
- Dacryocystorhinostomy (DCR)
- Vascular lesions
- Otology
- Larynx
- Pediatrics

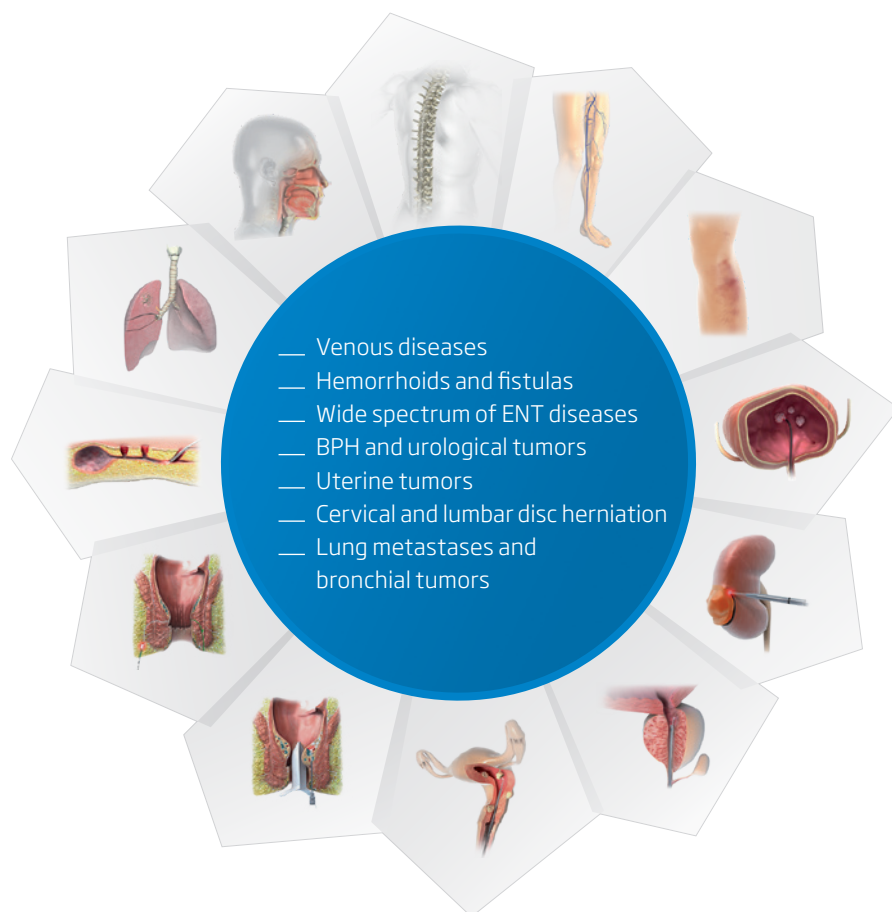
Advantages

- Microsurgical precision
- Minimal post-operative swelling of tissue
- Bloodless operation
- Clear view of operating field
- Minimal operative side effects
- Outpatient operation possible under local anesthesia
- Short recovery period
- Optimum preservation of surrounding tissue



Contact us

to learn more about a whole new world
of minimally invasive laser therapies



biolitec® worldwide

biolitec AG

Vienna, Austria
phone: +43 1 3619 909 50
info@biolitec.de
www.biolitec.com

biolitec biomedical technology GmbH

Jena, Germany
Phone: +49 3641 519 53 0

biolitec Schweiz GmbH

Wollerau, Switzerland
Phone: +41 55 555 30 20

biolitec España

Madrid, Spain
Phone: +34 91 9910857

biolitec Italia SRL

Milano, Italy
Phone: +39 02 8423 0633

biolitec Tıbbi Cihazları Ltd. Şti.

Istanbul, Turkey
Phone: +90 216 574 7456

OOO biolitec Spb

Saint-Petersburg, Russia
Phone: +7 812 4493752

biolitec FZ LLC

Dubai, UAE
Phone: +971 44 29 85 92

biolitec laser science and technology Shanghai Ltd.

Shanghai, China
Phone: +86 21 6308 8856

biolitec Sdn. Bhd.

Selangor, Malaysia
Phone: +60 3 5569 7158

biolitec India Private Ltd.

Bangalore, India
Phone: +91 265 3201106

PT. Biolitec

Tangerang, Indonesia
Phone: +62 21 537 2994

biolitec Korea Ltd.

Seoul, Republic of Korea
Phone: +82 2 701 4707

Equipos Laser de Uso Medico y Fibra Optica SA de CV

México City, Mexico
Phone: +52 155 55 731800

biolitec BCIE LTDA

São Paulo, Brazil
Phone: +55 11 2093 8602

CeramOptec GmbH

Bonn, Germany
Phone: +49 228 979670

Ceram Optec SIA

Riga, Latvia
Phone: +371 653 25 994



All fibers are free of latex and DEHP. Our fibers are single use products (unless otherwise indicated) delivered sterile for immediate use.

Imprint

biolitec AG
Untere Viaduktgasse 6/9
A-1030 Wien
Phone: +43 1 3619 909 50
www.biolitec.com