

# HOLA ELLA

Minimally invasive laser therapy  
in Gynaecology



- Precise
- Excellent haemostasis
- Versatile
- Working in non-contact or contact

# biolitec® laser therapies in Gynaecology

The biolitec® diode laser systems are characterized by a compact, maintenance-free design for effective and safe use in surgery. Since almost 20 years biolitec® has been developing methods and procedures in many medical disciplines and offers established and sophisticated devices with a selection of optical fibers for different applications. The laser systems used worldwide are developed in Germany at the Bonn location and are characterized by high quality and safety standards. Whether in the operating room or in the outpatient OR centre, the use of biolitec® diode lasers significantly expands the spectrum of users.

In gynaecology, biolitec® offers a wide range of treatment options in both hysteroscopy and laparoscopy. Myomas, polyps, dysplasia, cysts and condylomas can be treated by cutting,

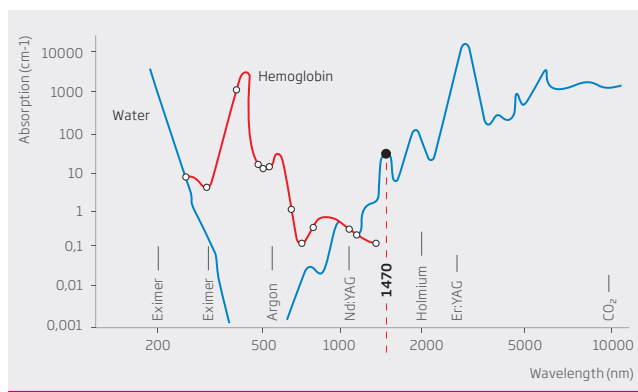
enucleation, vaporization and coagulation. Controlled cutting with laser light has hardly any effect on the uterine muscles and thus avoids painful contractions. The simultaneous coagulation guarantees excellent haemostasis and therefore a good view on the surgical field at all times. The defined penetration depth allows very precise and tissue-friendly working and is therefore the method of treatment with a great contribution to preserving fertility.

## **Easy to use, precise & versatile in**

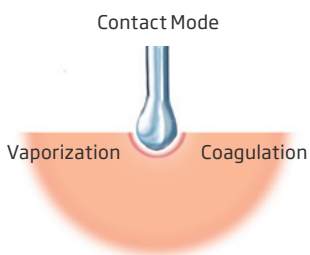
- **Hysteroscopy**
- **Laparoscopy and**
- **minimally-invasive surgery**

# “Technology meets Anatomy”

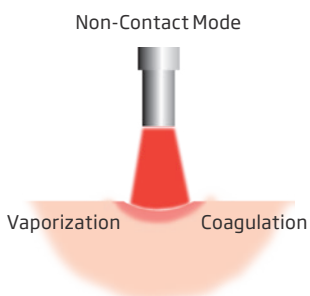
The 1470nm/980nm wavelengths ensure high absorption in water and haemoglobin. The thermal penetration depth is significantly lower than, for example, the thermal penetration depth with Nd:YAG lasers. These effects enable safe and precise laser applications to be performed near sensitive structures while providing thermal protection of the surrounding tissue. Compared to the CO<sub>2</sub> laser, these special wavelengths offer significantly better haemostasis and prevent major bleeding during surgery, even in haemorrhagic structures.



Absorption of laser beam in haemoglobin and water



With thin, flexible glass fibres you have very good and precise control of the laser beam. The penetration of laser energy into deep structures is avoided and surrounding tissue is not affected. Working with quartz glass fibers in non-contact and contact offers tissue-friendly cutting, coagulation and vaporization.



## LEONARDO<sup>®</sup> DUAL

### Easy

- Easy handling
- Reduced surgery time

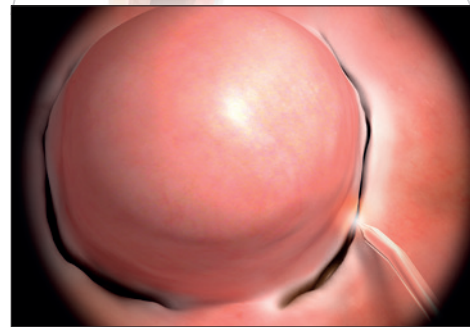
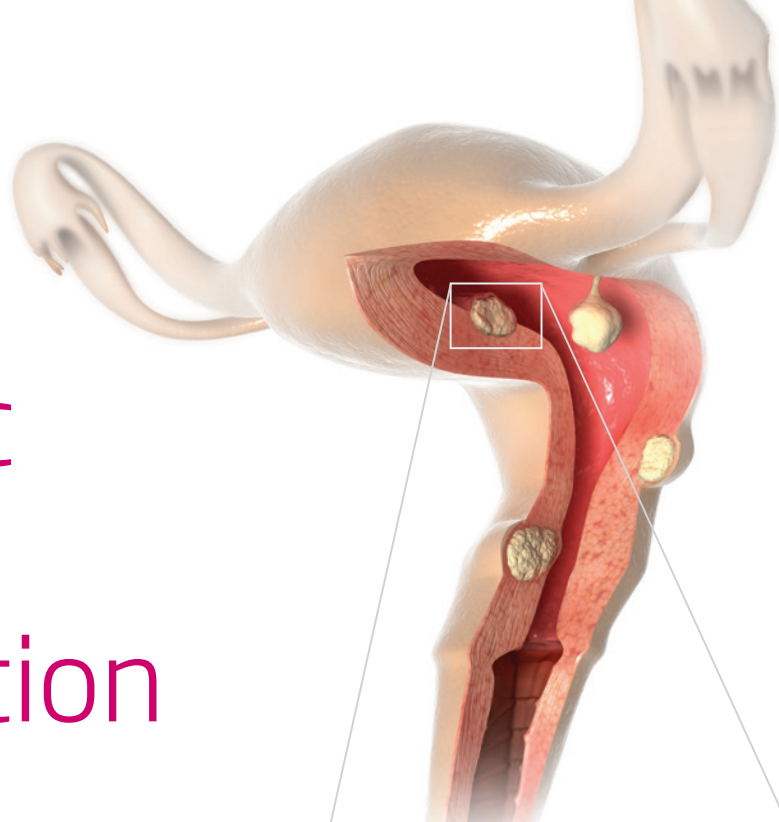
### Safe

- Intuitive interface
- RFID for sterility assurance
- Defined penetration depth

### Flexible

- Contact- or non-contact with tactile feedback
- Cutting, coagulation, haemostasis

# HOLA - Hysteroscopic Outpatient Laser Application



Enucleation of a myoma with MyoFiber® CC

About one third of all women aged 30 and over is affected by myomas. The gentle and above all uterine preserving treatment of myomas is especially important for women who wish to have children.

Myomas can be enucleated quickly and gently with the MyoFiber® glass fibers in a variety of designs. The use of standard diagnostic hysteroscopes with small diameter allows direct treatment during diagnosis. The laser energy avoids contraction of the uterine muscles and can therefore be used without or under minimal local anaesthesia. The extremely gentle intervention with continuous irrigation with saline solution ensures a quick return to normal activities.

## Advantages

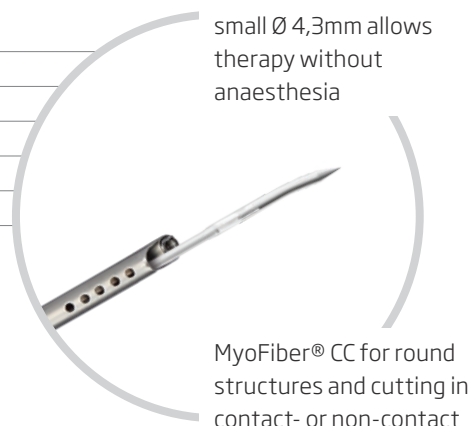
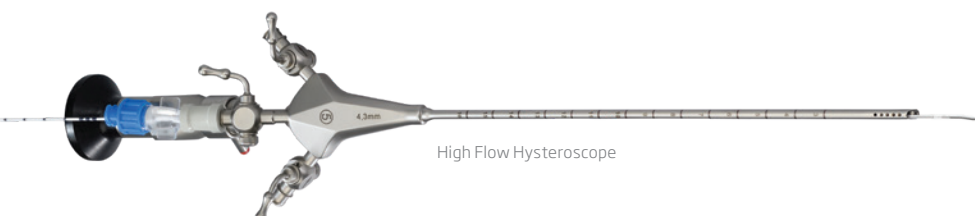
- safe working in saline solution
- Outpatient possible without anaesthesia
- Use of standard instruments
- Almost painless for patients

## Applications

- Myoma
- Polyp
- Septum
- Isthmocele

## Instruments and fibers

REF	Product
400500200	High Flow Hysteroscope ID 5 Fr. for optics 2 mm, 30°, 260 mm
400500120	ASAP Hysteroscope optics HD, 2 mm, 30°, 260 mm for High Flow Hysteroscope
503200775	MyoFiber® CS, IC
503200760	MyoFiber® CC, IC
503200770	MyoFiber® CA, IC



# ELLA - Endometriosis Laparoscopic Laser Application

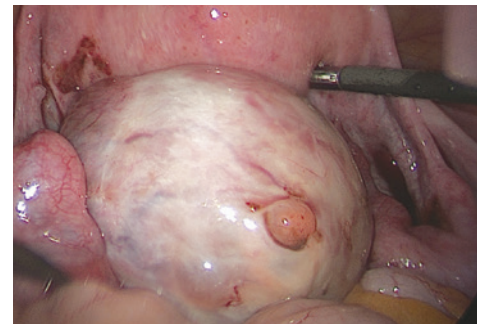
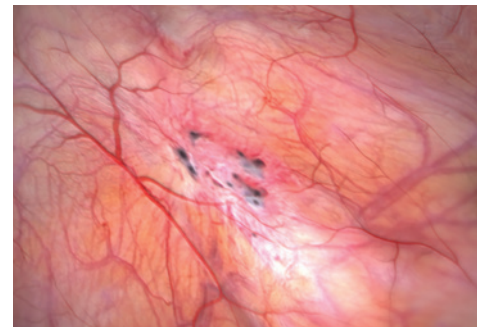
Endometriosis is one of the main causes of endometriosis in women with abdominal pain and unfulfilled desire to have children. In women with symptoms, the primary goal is the laparoscopic removal of endometriosis lesions. Laser energy, delivered via the glass fiber optic, is used to precisely remove endometriosis lesions. Especially the resection of ovarian cysts is particularly gentle. First results of a study confirm the rapid recovery of the AMH value and the significant maintenance of the ovarian reserve\*.

## Advantages

- Working in non-contact or contact with tactile feedback
- Defined penetration depth without impact on surrounding tissue
- Preservation of ovarian reserve and fertility
- Excellent haemostasis
- Reduced scarring and avoidance of adhesions

## Applications

- Peritoneal Endometriosis
- Ovarian Endometriosis
- Adhesiolyses
- Salpingectomy
- Cysts
- Twin-to-twin Syndrome TTTS



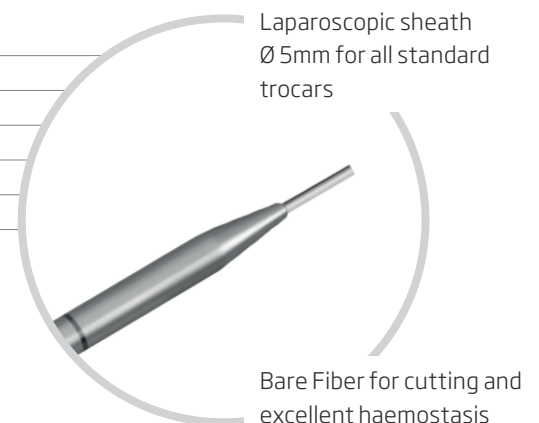
endometriosis, ovarian cyst

## Instruments and fibers

REF	Product
400400110	Laparoscopic sheath 30 cm
400400115	Laparoscopic sheath 40 cm
503200745	Bare Fiber 600 µm, Flat Tip, IC
503200750	Bare Fiber 600 µm, Ball Tip, Adj. Luer, IC (1 x 6 h)
503300415	Bare Fiber 1000 µm Flat Tip Adj. Luer



Laparoscopic sheath



\* Study finalized in January 2018

# Minimally-invasive surgery

Laser surgery is also excellently suited for the treatment of condylomas or dysplasia in the areas of vulva, vagina and cervix. During conization, laser energy, delivered via the glass fiber optic, replaces the scalpel with the added benefit of excellent haemostasis. The defined penetration depth of the laser energy is less invasive, leading to fewer complications and a quick recovery of the patients.

## Advantages

- Precise cutting and coagulation
- Short rehabilitation time
- Optimal protection of surrounding tissue
- Almost blood-free procedure

## Applications

- Condyloma
- Conization
- Dysplasia

## Instruments and fibers

REF	Product
400100100	Universal Dual Luer Handpiece
AB2594	Biopsy Needle
503200745	Bare Fiber 600 µm, Flat Tip, IC
503200750	Bare Fiber 600 µm, Ball Tip, Adj. Luer, IC (1 × 6 h)
503300415	Bare Fiber 1000 µm Flat Tip Adj. Luer



Universal Dual Luer Handpiece

# LEONARDO®

One device for multiple applications  
in Gynaecology



**LEONARDO® DUAL 45**  
universal & ingenious



**LEONARDO® DUAL 200**  
versatile & powerful

**LEONARDO® Mini**  
basic & specialist



## LEONARDO®

**LEONARDO® DUAL 45**

INVISIBLE LASER RADIATION  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR INDIRECT RADIATION

**CLASS 4 LASER PRODUCT**  
Diode-Laser 980 +/- 30 nm CW 20W (Max.)  
Diode-Laser 1470 +/- 30 nm CW 15W (Max.)  
EN 60825-1:2008 EN 60601-2-22:2007

VISIBLE LASER RADIATION  
AVOID EYE EXPOSURE TO DIRECT RADIATION

**CLASS 3R LASER PRODUCT**  
Diode-Laser 635 +/- 10 nm CW 4 mW (Max.) (Aiming)  
Diode-Laser 532 +/- 10 nm CW 1 mW (Max.) (Aiming)  
EN 60825-1:2008 IEC 60601-2-22:2007


**LEONARDO® DUAL 200**


INVISIBLE LASER RADIATION  
AVOID EYE OR SKIN EXPOSURE TO  
DIRECT OR INDIRECT RADIATION

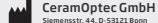
**CLASS 4 LASER PRODUCT**  
Diode-Laser 980 +/- 30 nm CW 160W (Max.)  
Diode-Laser 1470 +/- 30 nm CW 40W (Max.)  
IEC 60825-1:2007 IEC 60601-2-22:2007

VISIBLE LASER RADIATION  
AVOID EYE EXPOSURE TO DIRECT RADIATION

**CLASS 3R LASER PRODUCT**  
Diode-Laser 635 +/- 10 nm CW 4 mW (Max.) (Aiming)  
Diode-Laser 532 +/- 10 nm CW 1 mW (Max.) (Aiming)  
IEC 60825-1:2007 IEC 60601-2-22:2007



 1984

  
Siemensstr. 44, D-53121 Bonn

Model	LEONARDO® Mini Dual	LEONARDO® DUAL 45	LEONARDO® DUAL 200
REF	SL980+1470nm14W	SL980+1470nm45W	SL980+1470nm200W
Wavelength	980 nm and 1470 nm	980 nm and 1470 nm	980 nm and 1470 nm
Power	10 W (980 nm) / 4 W (1470 nm)	45 Watt (1470 nm / 15 Watt + 980 nm / 30 Watt), separately adjustable	200 Watt (1470 nm / 40 Watt + 980 nm / 160 Watt) separately adjustable
Fiber diameter	≥ 360 µm	≥ 360 µm	≥ 360 µm
Aiming beam	635 nm, max. 4 mW	532 nm and 635 nm, green 1 mW, red 4 mW, user controlled intensity	532 nm und 635 nm, green 1 mW, red 4 mW, user controlled intensity
Treatment mode	CW, Pulse Mode (optional)	CW, Pulse Mode, ELVeS® Signal, ELVeS® Segment, Derma Mode	CW, Pulse Mode, ELVeS® Signal, ELVeS® Segment, Derma Mode
Pulse duration /-break	0.01 – 60 Sek. / 0.01 – 60 Sek.	0.01 – CW / 0.01 – 60 Sek.	0.01 – CW / 0.01 – 60 Sek.
Power supply	110 - 240 VAC, 50 - 60 Hz (7.2 VDC @ 36 W)	110 - 240 VAC, 50 / 60 Hz, 450 VA	110 - 240 VAC, 50 / 60 Hz, 850 VA
Batteries	Li-ion Batterien	-	-
Dimensions (H x W x D)	6.0 cm x 9.0 cm x 21.5 cm	approx. 28 cm x 37 cm x 9 cm	approx. 20 cm x 37 cm x 26 cm
Weight	900 g	approx. 8,5 kg	approx. 15 kg

All laser sets incl. 3 safety goggles, foot switch, interlock connector, power cord and manual in a carrying case.

# Contact us

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



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Manufacturer: MDD 93 / 42 EEC; CE1984:  
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delivered sterile for immediate use.  
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