

ThyLA DUAL

Laser Thermal Ablation
of Thyroid Nodules



- Function-preserving procedure
- High effectiveness
- Outpatient treatment

ThyLA DUAL – DUAL Laser Technology

Following our tradition during the development of new minimally invasive treatments, we succeeded in combining wavelengths, 980 nm / 1470 nm and 1064 nm / 1470 nm, in a single device for excellent and efficient intra- and postoperative results. Dual diode laser with high quality fiber optics makes procedures safe and cost-effective for medical professionals and patients.

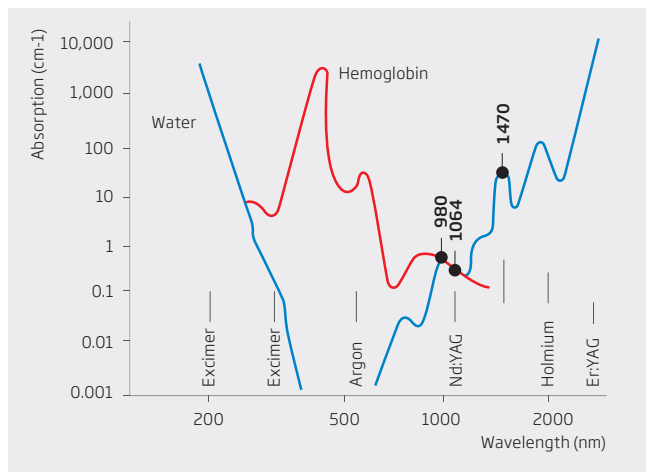
Laser Thermal Ablation

Advantages

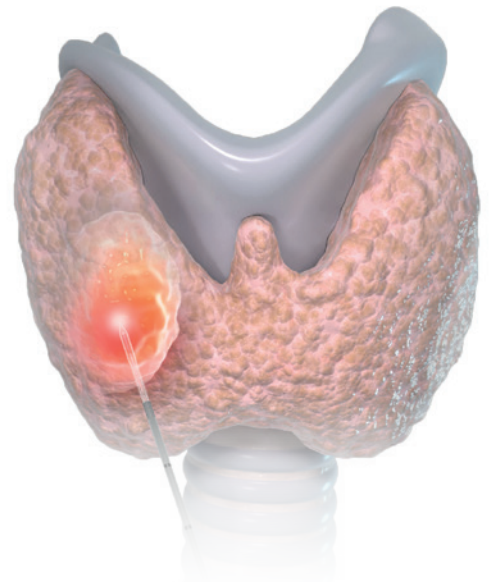
- Treatment possible with local anesthesia
- High effectiveness, reduction of the nodule volume by about 50 % after three months
- Short treatment duration
- Protection and preservation of healthy thyroid tissue
- Good cosmetic results
- Easy to control penetration depth
- Function-preserving procedure, usually no medication necessary after the intervention
- Quick resumption of daily activities
- Treatment can be repeated as needed
- Suitable for risk patients

Indications

- Symptomatic benign nodular formations
- Symptomatic thyroid cysts
- Rapidly developing benign nodules or cyst formations
- Visually disturbing nodules
- "Hot" nodular formations (autonomous adenoma) when radioiodine therapy is not desired
- Patients who do not want an operation or are only fit for a limited procedure or one without anesthesia



Through the occupation of the absorption maxima and minima by the diode laser of wavelengths 980 nm, 1064 nm and 1470 nm, we succeeded in adapting the penetration depth to the extent of the thyroid nodule to be treated.



A gentle, organ-preserving method for the treatment of benign thyroid nodules

Laser thermal ablation is a minimally invasive procedure during which the tissue is dissipated by laser energy. During the laser thermal ablation, similar to a biopsy with ultrasound monitoring, the special ThyLA fiber is introduced into the thyroid nodule to coagulate the nodular tissue through selective radiation.

When the size or shape of the lesion to be treated requires, the therapy takes place with the so-called "multiple overlapping shot technique" (moving shot technique). In this instance, the ThyLA fiber is replaced intranodally after each pulse. Thus multiple coagulative necroses are placed, and the entire nodule is treated. To enable a homogeneous and controlled penetration depth and, at the same time, an excellent ultrasound view, the ThyLA fiber was developed.

Our Products

biolitec®'s unique
FUSION® technology

The glass fiber caps
are welded to the fibers
and not simply glued.
That means maximum
safety during
the application.



biolitec® laser systems

Modell	LEONARDO® Mini Dual	LEONARDO® DUAL 45	LEONARDO® DUAL 45
REF	SL980+1470nm16W	SL980+1470nm45W	SL1064+1470nm45W
Wavelength	980 nm ± 30 nm / 1470 nm ± 30 nm	1470 nm ± 30 nm + 980 nm ± 30 nm	1064 nm ± 30 nm + 1470 nm ± 30 nm
Power	11 W@980 nm ± 20 % (Pmax = 13,2 W) 5 W@1470 nm ± 20 % (Pmax = 6 W)	30 W ± 20 % (max. 36 W) + 15 W ± 20 % (max. 18 W)	30 W ± 20 % (max. 36 W) + 15 W ± 20 % (max. 18 W)
Fiber diameter	≥ 360 µm	≥ 360 µm and 220 µm with reduced Pmax. (optional)	≥ 360 µm and 220 µm with reduced Pmax. (optional)
Laser class	4	4	4
Aiming beam	635 nm, max. 4 mW	532 nm and 635 nm, green 1 mW, red 4 mW, user-controlled intensity	532 nm and 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 sec. / 0.01 – 60 sec.	0.01 – 60 sec. / 0.01 – 60 sec.	0.01 – 60 sec. / 0.01 – 60 sec.
Power supply	100 – 240 VAC, 50 – 60 Hz (12 VDC @ 64, 8 W)	110 – 240 VAC, 50 / 60 Hz / max. 450 VA	110 – 240 VAC, 50 / 60 Hz / max. 450 VA
Cooling	Air-cooled system	Air-cooled system	Air-cooled system
Dimensions (H × W × D)	6.0 cm × 9.0 cm × 21.5 cm	approx. 28 cm × 37 cm × 9 cm	approx. 28 cm × 37 cm × 9 cm
Weight	900 g	approx. 8.5 kg	approx. 8.5 kg

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 30 W (Max.)
Diode-Laser: 1470 ± 30 nm CW 15 W (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 EN 60601-2-22:2007

LEONARDO® DUAL 45
(30W@1064nm + 15W@1470nm)

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


CLASS 4 LASER PRODUCT


Diode-Laser: 1064 ± 30 nm CW 30 W (Max.)
Diode-Laser: 1470 ± 30 nm CW 15 W (Max.)
EN 60825-1:2014 EN 60601-2-22:2013


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 60825-1:2014 EN 60601-2-22:2013



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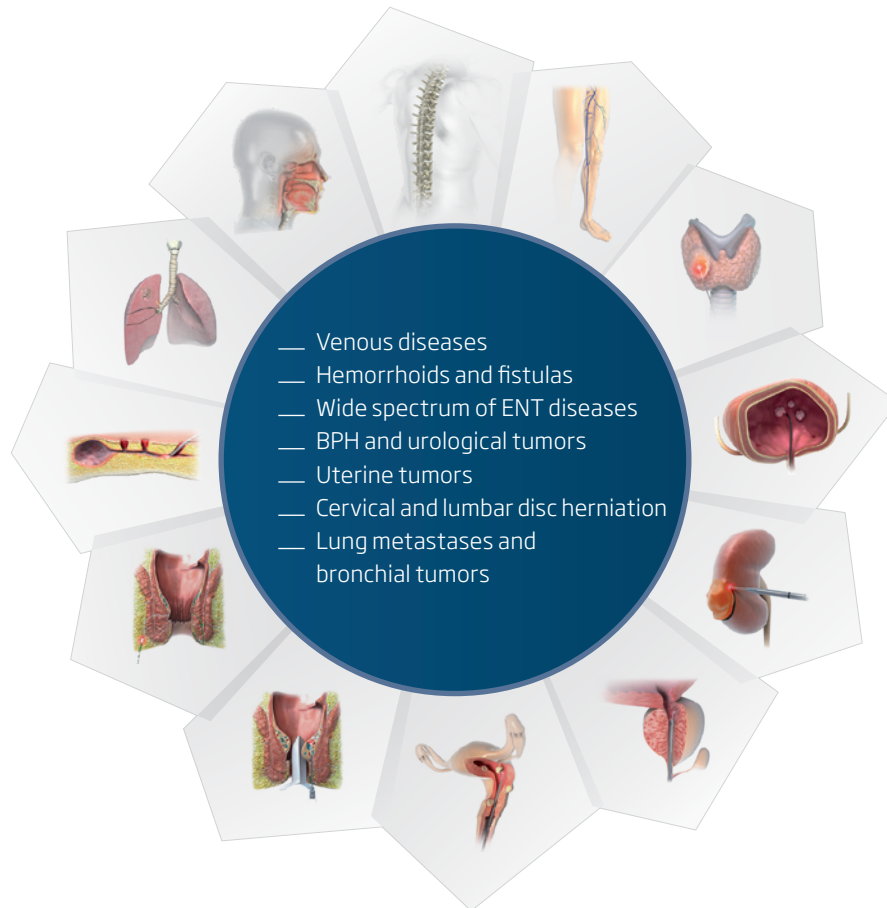
Fibers & Accessories

REF	Product	PU*	Length	Diameter	Ablation zone
503100450	ThyLA slim Fiber, IC	10	2.6 m	0.96 mm	 olive
AB2571	Biopsy needle	10	100 mm	18 G	–

* Packaging unit

Contact us

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



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

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