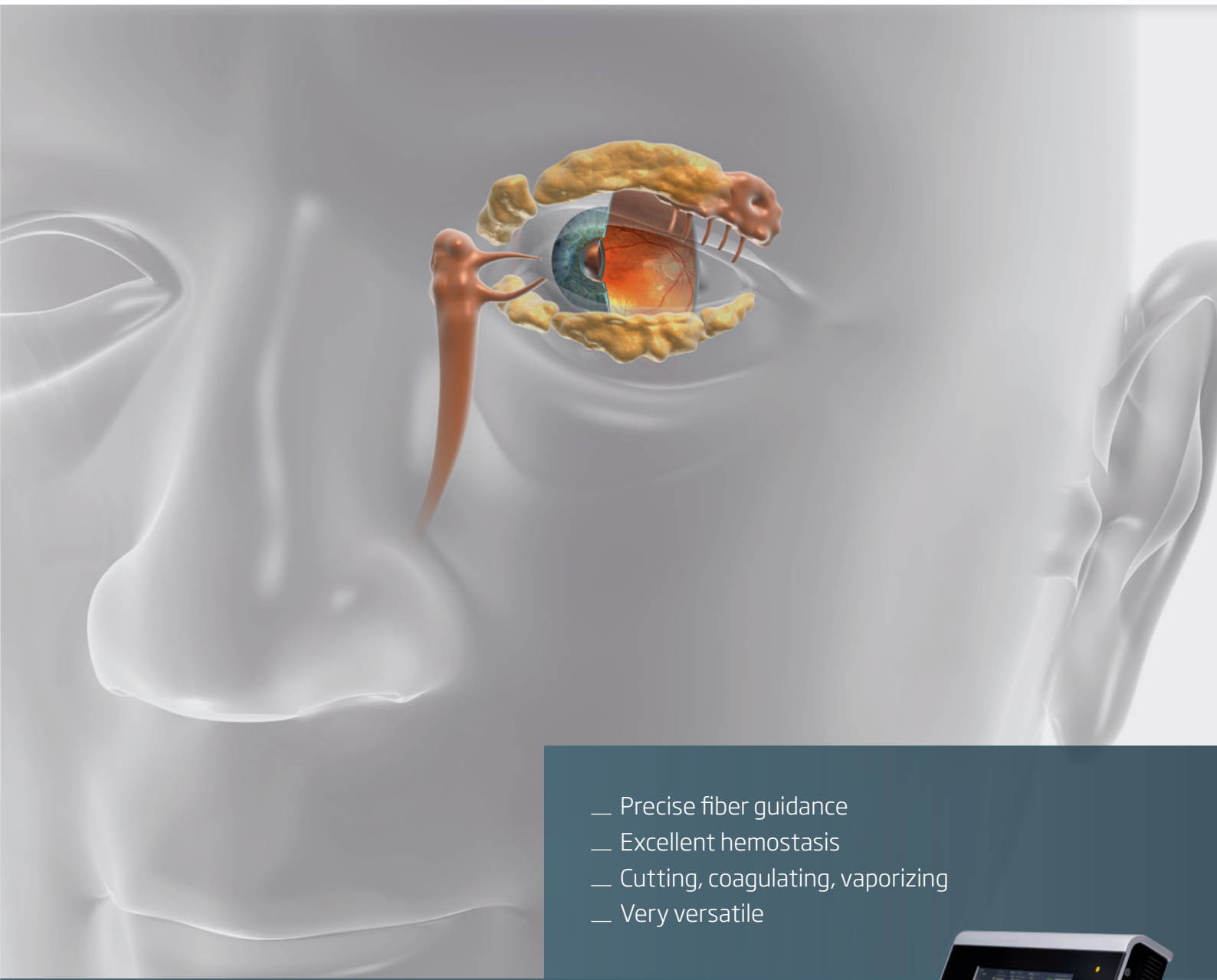


Ophthalmology

High-Power Laser

Laser Surgery with Fiber Optics



- Precise fiber guidance
- Excellent hemostasis
- Cutting, coagulating, vaporizing
- Very versatile



Laser applications with flexible fibers in Ophthalmology

The biolitec® diode laser systems are characterized by a compact, maintenance-free design for effective and safe use in ophthalmology. The sophisticated systems have also been developed for a variety of applications in ophthalmology and offer a wide choice of options for the minimally invasive laser treatment of medical conditions around the eye and in the eye itself. Whether used in an operating room, outpatient surgery center or in a private practice, the use of biolitec® diode laser systems significantly expands the user's range of options.

Benefits

- "Laser scalpel" with mechanical cutting characteristics
- Non-contact lasers with optimum optical control
- Micro-surgical precision
- Tactile feedback from the laser fiber
- Minimal bleeding
- Minimal post-operative measures
- Short rehabilitation time for the patient
- Minimal operative side effects with reduced post-operative pain
- Outpatient treatment with local anesthetic possible
- Optimum protection of the surrounding tissue
- No uncontrolled current flow, unlike high-frequency surgery

Outpatient Applications

Outpatient laser surgery in private practices or clinics has become firmly established and widely accepted as a method for surgical operations over the last ten years. Operations with very little bleeding, due to the excellent coagulation of the fiber-controlled diode laser, can be effectively performed in little time and usually under local anesthetic.

Blepharoplasty

(Removal of the fat deposits in the tear sac)
Discission, endocoagulation and lipolysis

Sicca syndrome

("Dry eye") Narrowing / occlusion of the evacuative lacrimal duct (laser coagulation for punctum stenosis)

Dacryocystorhinostomy (DCR)

Opening or bypassing an obstructed lacrimal sac or nasolacrimal duct

Watery eyes (epiphora)

Opening of the evacuative lacrimal duct
(Laser tip endoprobing)

Tumor surgery

(Benign fibroids, xanthelasma, xanthoma, etc.)
Coagulation, vaporization and excision

Telangiectasia (dilated capillaries)

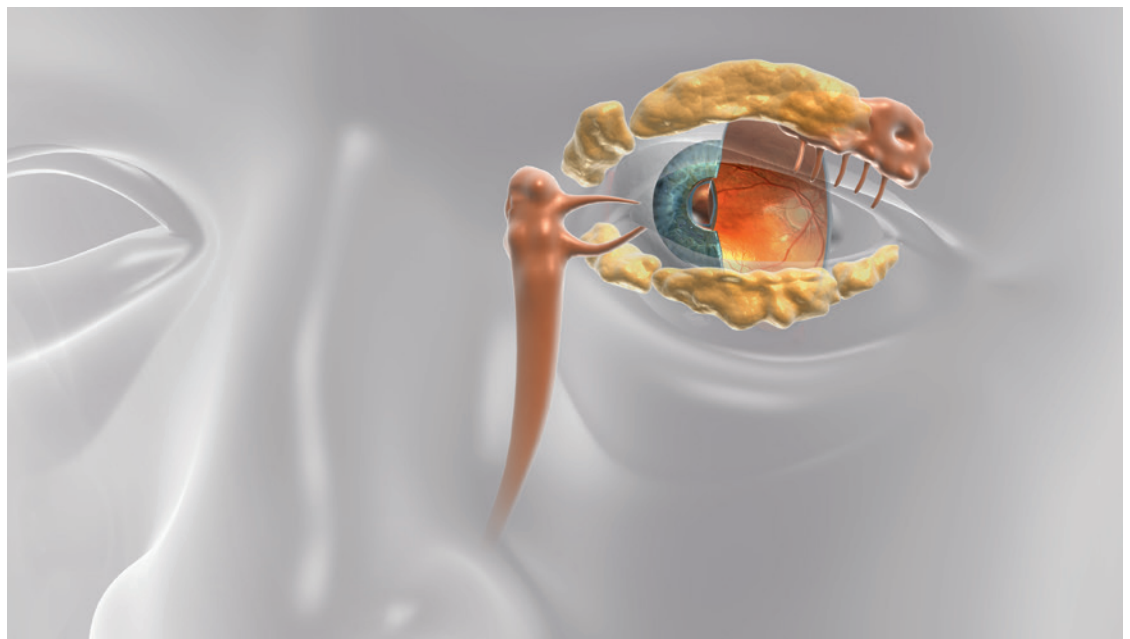
Coagulation under enlarged view

Chalazia, Styes

Vaporization and coagulation of the inflammation / cysts in and around the meibomian glands or glands of Zeis with extensive retention of the secretory tissue

Orbital hemangioma

("Port-wine stain") Coagulation and vaporization



Technological superiority

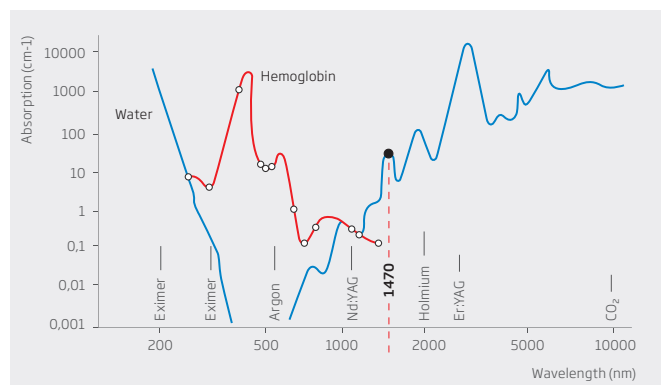
With its extremely thin laser fiber, the biolitec® laser can be used safely and precisely on the sensitive structures of the eye when using the contact mode. Compared with other lasers that use the open beam mode, using the contact mode with the fibers prevents the risk of damage to surrounding tissue. Only upon contact with the target tissue will the energy of the diode laser be activated in very small pulses, with the result that all the energy of the laser is immediately absorbed at the tip of the fiber. The depth of thermal damage is therefore minimal.

Surgical intervention often involves dealing with very narrow and sensitive structures. The biolitec® laser system has important benefits. With flexible and thin laser probes, intracorporeal structures can also be treated easily and precisely using a micro endoscope. Treatment for the frequently diagnosed condition of blepharoplasty, for example, has become pain-free operation with very little bleeding and with significantly reduced post-operative measures.

Significantly improved hemostasis (Clotting)

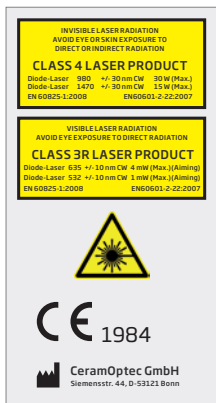
The wavelengths of 1470 nm/ 980 nm guarantee high absorption in water and hemoglobin. The thermal penetration depth is significantly less than, for example, with a Nd:YAG laser. These characteristics enable safe and precise laser applications to be performed near sensitive and narrow structures with simultaneous thermal protection of the surrounding tissue. Compared with the CO₂ laser, these special wavelengths offer considerably better hemostasis and prevent major bleeding during operations, even in hemorrhagic structures such as hemangiomas. With the biolitec® laser system, excisions, incisions and vaporisation of hyperplastic and tumorous tissue can be performed effectively and with virtually no side effects.

Laser beam absorption in hemoglobin and water





LEONARDO®



Technical Details	LEONARDO® DUAL 45
REF	SL980 + 1470 nm 45 W
Wavelength	980 nm and 1470 nm
Power max.	45 Watt (1470 nm / 15 Watt + 980 nm / 30 Watt) separately adjustable
Fiber diameter	≥ 360 µm
Aiming beam	532 nm and 635 nm, green 1 mW, red 4 mW, user controlled intensity
Treatment mode	CW, Pulse Mode, Derma Mode
Pulse duration /-break	0.01 – CW / 0.01 – 60 sec
Power supply	110 – 240 VAC, 50 / 60 Hz, 450 VA
Dimensions (H × W × D)	approx. 28 cm × 37 cm × 9 cm
Weight	approx. 8.5 kg

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

Fibers (“single use”) and resterilizable hand pieces

Uncoated fiber ends with ca. 200, 400, 600 and 1000 µm diameter

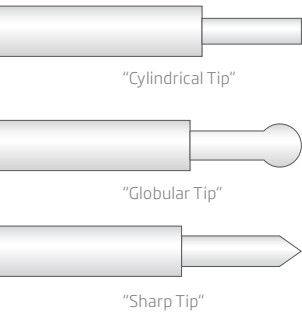
“Cylindrical Tip”

“Globular Tip”

“Sharp Tip”

Hand pieces with interchangeable optics for external use

Solid beam diameter (“spot sized”) with ca. 0.6, 1.0 and 1.5 mm



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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