OSYRIS

The laser innovation at physicians' and patients' service

The resources of OSYRIS

OSYRIS a partner in laser innovation

- High level physicists: 50 accumulated years of experience in the laser world
- A high-qualified sales team at your service
- A close collaboration with medical research centres

The commitment of OSYRIS

TRAINING and DEVELOPMENT

- A complete high level training
  - Workshops
- Applied research works
  - Control of interaction laser / tissue
  - International patents
- New applications
- Development of new products

Dedicated accessories of high performance

Handpiece | Graduated catheter | Connector | Fibre

- **Commercial reference**
  ENDO KIT
  ETO sterilisation
  - OSYHAND ENDO
  - OSYFIBRE 600
  - Graduated catheter
- **Packaging**
  10 kits

Technical specifications

LASER:	Diode Laser
Wavelength:	980 nm +/- 10
Power:	25 Watts
Cooling system:	Peltier and air
Emission mode:	Continuous or pulsed 0.1 à 25 sec.
Laser class:	4
MD class:	IIb
Aiming beam:	Diode laser
Wavelength:	635 nm +/- 20
Power:	< 2 mWatts
Laser class:	3R
Power supply:	110-240 VAC ; 50 to 60 Hz
Weight:	15 kg
Dimensions:	45 x 45 x 35 cm
Certification	CE 0398 Endovenous Lipolysis Exolaser

Distributed by:

OSYRIS
121, rue Chanzy
B.P. 90140
59260 HELLEMMES
FRANCE

Tel.: +33 (0)3 20 67 59 78
Fax.: +33 (0)3 20 04 46 24
email: osyris.medical@osyris.com

CE 0398

DANGER

IM EXC 02 AVR

PHARAON 980: ONE LASER, 3 MAJOR APPLICATIONS

980: a reference wavelength.

Its reference: THE ENDOVENOUS TREATMENT

Its additional benefit: THE TREATMENT OF BLUE LEG VEINS

Its new innovating and consecrating application: THE ADIPOCYTOLYSIS LASER

PHARAON 980:

A new generation of DIODE LASER:

- Guarantee of effective energy delivery.
- A large choice of emission modes:
  - Continuous mode.
  - Single pulse and repeat mode.
  - And its **MULTIPULSE** mode totally dedicated to the treatment of vascular lesions.

PHARAON 980:

Smart Cards:

- Guarantees the control of each application in an appropriate way.
- Each application has its own dedicated software screen.
- Data transfer to the patient file.

PHARAON 980:

Accessories of high performance:

- Fibres and connectors.
- Dedicated handpieces to each application.
- Sterile kits respecting the obligation of traceability.

PHARAON 980:

A laser console:

- **A user friendly touch screen**
  Large screen: direct visualization by the physician.
- Adapted graphics for each application.
- Permanent information of the running laser procedure.
- Feedback and capture of the information.
- **A dedicated OSYRIS memory stick for capturing and storing the treatment data.**
- **A modern design which blends very well** with the medical offices specialized in aesthetic techniques.
- **A size, a weight and a minimal foot print** that express totally its high technology manufacture.
- **Transportable from one office to another one:** purchase by 2 or 3 doctors.
- **A dedicated and nice looking carrying bag.**

PHARAON 980:

A revolutionary handpiece:

- Auto-regulated cooling system at 7°C +/- 10.
- Optical zoom.
- Screen display and treatment control.
- Manual handling.

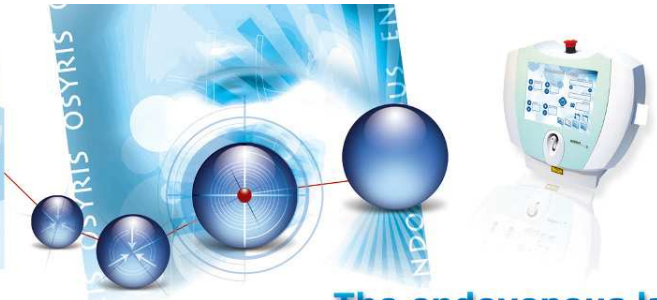
A dedicated carrying bag

An advantage: transportable

PHARAON 980:

Concentrates all **the laser and optical innovations** in one system.
Its design, weight, size and price are attractive.
Thanks to its dedicated carrying bag you can share it with another physician.
The Pharaon 980 is an answer to **the demand** and a response **to applications which are widely published.**

CE 0398



The endovenous laser

Principle:

Based on the thermal effect of the laser in 3 steps:

- A conversion of light into heat.
- Transfer of the heat to the vessel wall.
- A thermochemical effect on the tissue components of the vessel wall.

Method:

1. Starting point of the gesture:
   At the ankle or under the knee for the greater saphenous vein.
2. Introduction of a graduated catheter into the vein under ultrasound imaging.
   Visualization of the spasm.
   Tumescent anaesthesia.
3. Introduction of the laser fibre.
   Introducing the catheter influences the reduction of the vein calibre.
4. Withdrawal of the laser fibre with control and visualization of the movement.
   Laser shot every 3 mm.
   Finalization of the treatment.

Modelling:

- Need to obtain a thermal damage of the vessel wall.
- Need to know the vein diameter after tumescence.
- Energy parameters defined according to the diameter.

BIBLIOGRAPHY

- « Mathematical modeling of endovenous laser treatment »
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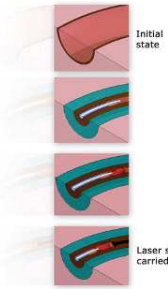
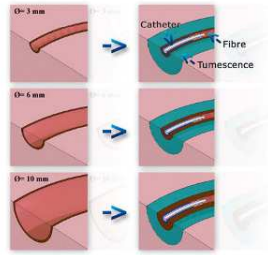
  S. MORDON, B. WASSMER, J. ZEMMOURI
- « A 2 years follow-up study of endovenous 980 nm laser treatment of the great saphenous vein : Role of the blood content in the GSV »
  Elsevier Gmbh doi:10.1016/j.mla.2005
  J. DESMYTTERE, C. GRARD, S. MORDON
- A Paraître : « Endovenous 980-nm laser treatment of saphenous veins in a series of 500 patients »
  Journal of Vascular Surgery
  J. DESMYTTERE, C. GRARD, B. WASSMER, S. MORDON

The Advantages: +++

	Surgery	Laser
Anaesthesia	General Locoregional Peridural	**Local**
Hospitalization	2 to 3 days	**No hospitalization** **Ambulatory**
Bruises	Numerous	**No bruises**
Contention stockings	3 weeks	**2 to 7 days max.**
Post-operative comfort	No shower for 10 days	**Shower possible straight away**
Sick leave	3 weeks	**2 to 8 days max.**

A clinical reality:





Drawing of laser treated diameters.
Correlated visualization of the vein wall.

- **Indications:**
  - Greater saphenous veins (10 mm diameter on average).
  - Small saphenous veins.
  - Secondary treatment of residual varicose veins.