

# Cyber Ho Family

*Holmium Laser System*





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## THE REVOLUTION IN HOLMIUM SURGERY

**Cyber Ho** Holmium lasers (2.1  $\mu\text{m}$ ) meet the increasing demand of efficacy, flexibility with unique multi-application laser platforms able to perform both **Lithotripsy** and **HoLEP**.

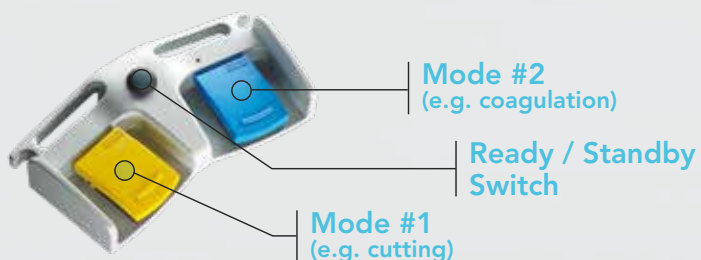
**Cyber Ho** can reach up to **152 W** power and brings outstanding innovation by offering the exclusive **Vapor Tunnel™**, **Virtual Basket™** and **MasterPULSE™** technologies for advanced retropulsion control. These devices further offer impressive settings regarding energy and frequency (up to **100 Hz**).

### General Overview

- ✓ BPH Treatment
- ✓ Effective Lithotripsy
- ✓ High Frequency Emission (up to 100 Hz)
- ✓ The Highest Power among Holmium Lasers
- ✓ Minimized Retropulsion
- ✓ Reduced Depth of Penetration (0.3 - 0.4 mm)
- ✓ Soft Tissue Surgery
- ✓ High Versatility



## DOUBLE FOOTSWITCH



The double footswitch enables **immediate** switch from one emission mode to another, with **complete customization** of pedal-mode association. No bothersome interruptions are needed for settings readjustment.

# BPH

HoLEP (*Holmium Laser Enucleation of the Prostate*) is a proven technique for the treatment of BPH (*Benign Prostatic Hyperplasia*), with high effectiveness, safety and durability.

The large amount of literature demonstrates its advantages in terms of efficacy and safety with respect to traditional treatments available for BPH.

Recent studies and trials have validated the excellent outcomes achieved by this technique, with its success being reproduced in a diverse array of patients. HoLEP can be applied regardless of prostate size and in retreatment setting, with a low complication incidence and retreatment rate on long term follow-up.

Cyber Ho Family offers full choice regarding settings selection, with superior surgical experience granted by the double footswitch, the intuitive and large modulation of pulse width and the dedicated modes for the different treatment steps.

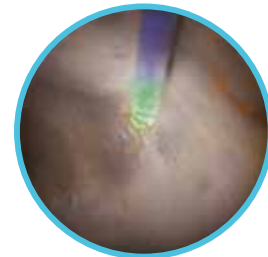
The endless combinations of settings and multiple tools allow the maximum treatment versatility, so that the surgeon can easily reach the desired outcome.



Starting 5 o'clock incision



12 o'clock incision



Lateral lobe enucleation

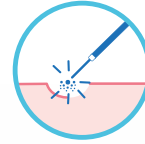


Delicate Areas Mode

Dedicated Coagulation Setting

### FAST CUTTING

The limited depth of penetration, together with the fast tissue incision, results in precise cut without affecting surrounding tissues



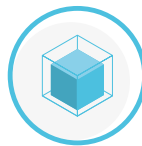
### RELIABILITY

Clinical outcomes of HoLEP have been widely investigated, with many clinical studies demonstrating its safety and effectiveness also in the long run



### SIZE INDEPENDENT

HoLEP overcomes the limitations affecting other BPH techniques regarding prostate size



### EFFECTIVE HEMOSTASIS

The Holmium radiation is highly absorbed by water, allowing quick coagulation of bleedings



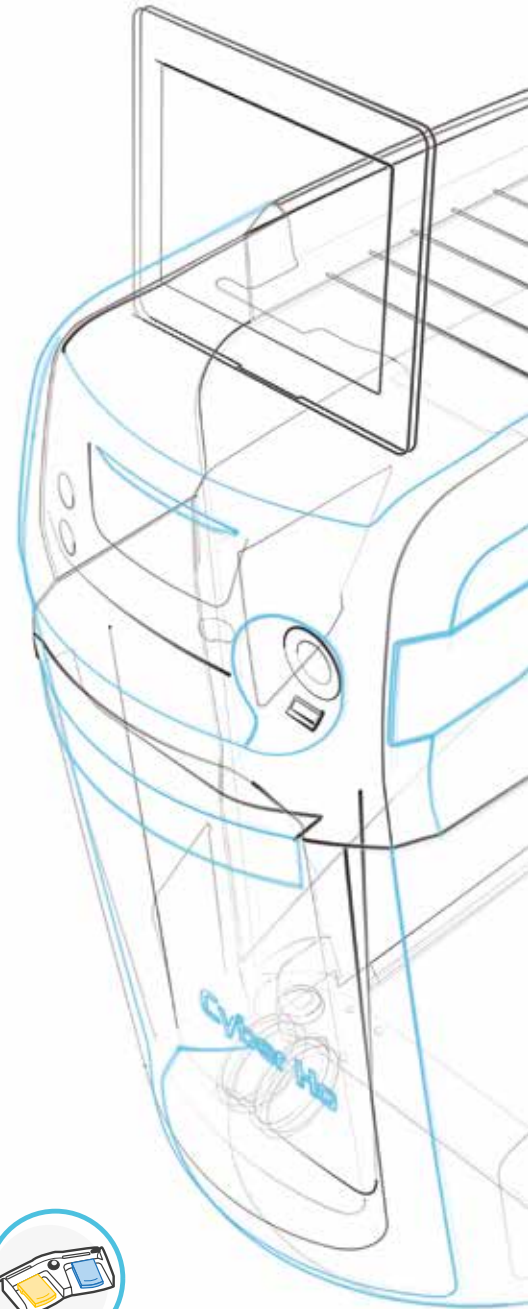
### HIGH POWER

Up to 152 W output, for fast and quick incision, cutting down treatment time



### DOUBLE FOOTSWITCH

Quick switch from one emission mode to another (eg. from cutting to coagulation emission)





## Vapor Tunnel™

Consisting in a Single **Specific Long Pulse**, this emission mode allows limited retropulsion and fine stone ablation. The Vapor Tunnel™ is designed in order to use the minimum peak power in accordance with selected output settings.



Bubble Dynamics of Vapor Tunnel™



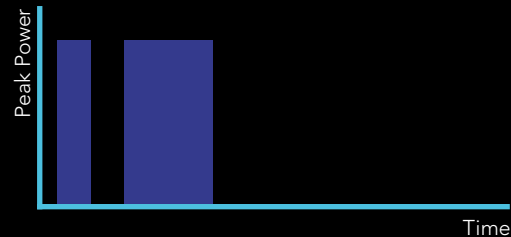
## Virtual Basket™

Composed by a **Double Pulse Emission\***, combines a low retropulsion with a fragment suction effect.

\* (time duration separating the two pulses is chosen so that the second pulse is emitted from the distal tip of the fiber when the bubble size, and the corresponding amount of displaced fluid, is at a maximum)



Bubble Dynamics of Virtual Basket™



## Advantages of Virtual Basket™ & Vapor Tunnel™



### MAGNETIC EFFECT

The Vapor Tunnel™ effect allows stone ablation while holding the target in place, without inducing stone retropulsion



### EASIER TREATMENT

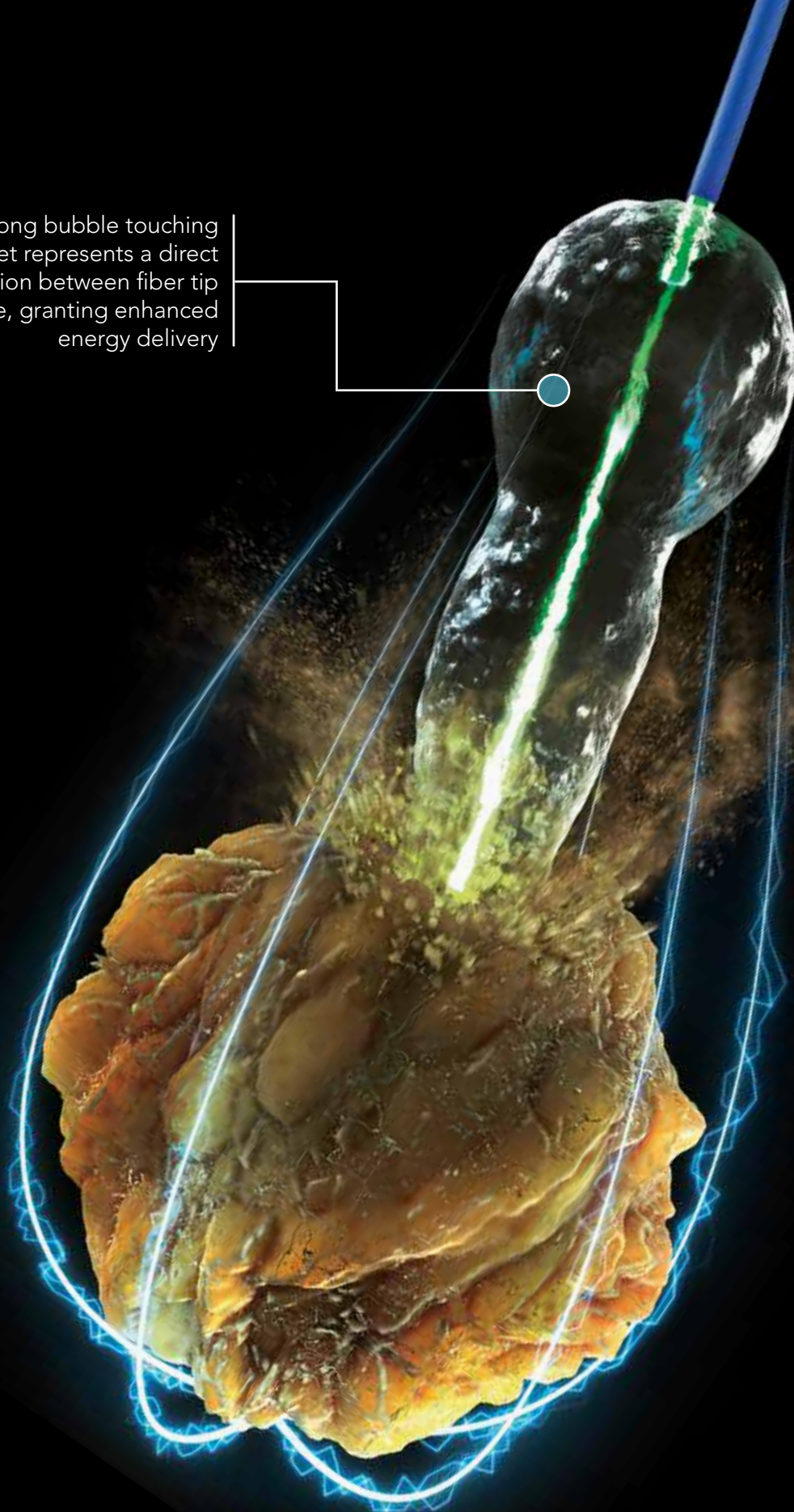
With a more stable target, lithotripsy treatment can proceed easily with fewer hassles



### TIME SAVING

Less stone retropulsion prevents the time-consuming fiber repositioning, whereas enhanced energy transmission increases the ablation rate

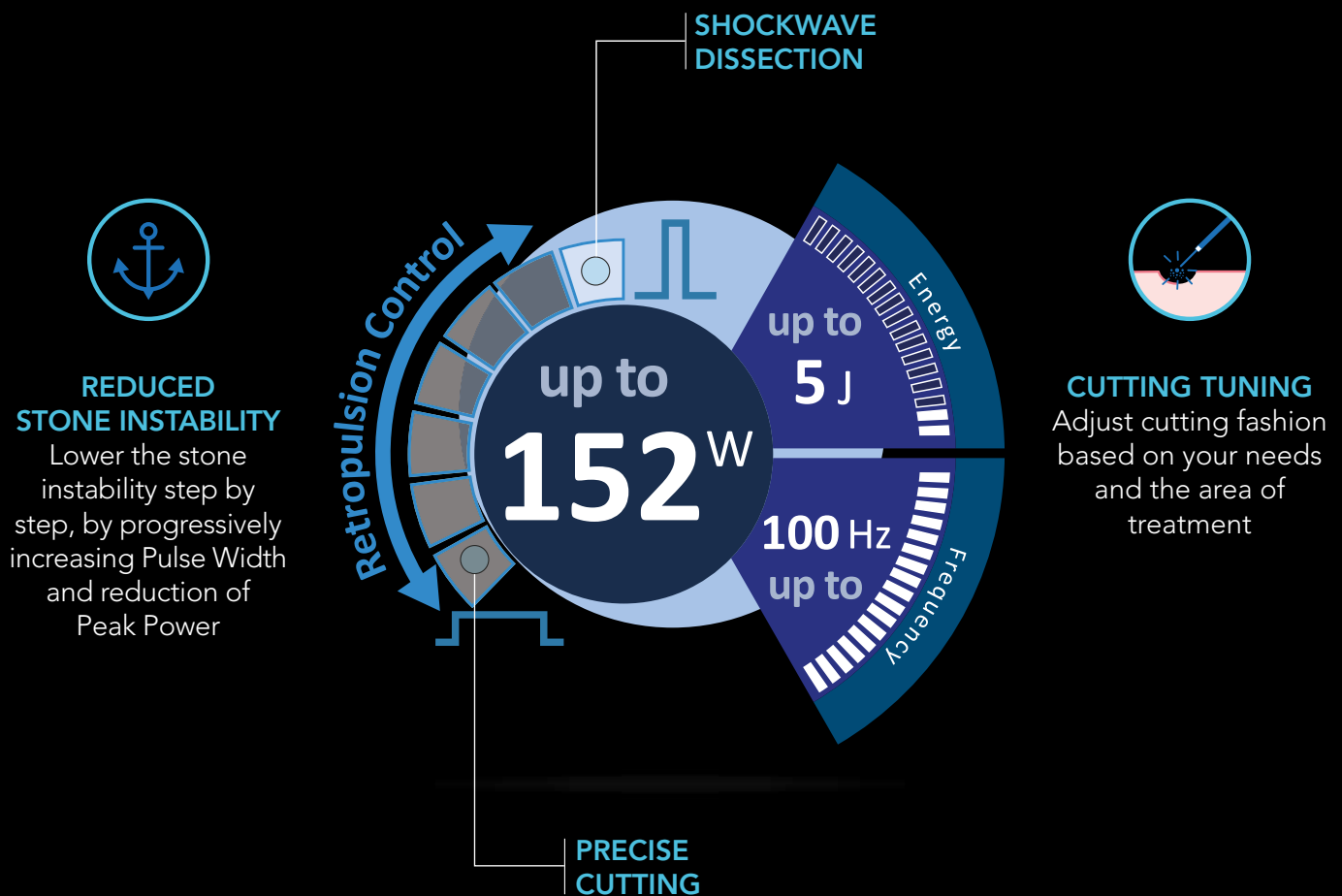
This long bubble touching the target represents a direct connection between fiber tip and stone, granting enhanced energy delivery



As the pulse ends, the bubble collapses. The stone is dragged backwards together with the collapsing bubble (like to a virtual basket)



# MasterPULSE™



## General Benefits

Reducing retropulsion and modifying tissue cutting get easier: instead of trying multiple different settings, start with your preferred ones and then adjust the MasterPULSE™ to tune the effect of laser emission based on your visual feedback. Regulation of pulse width has never been so easy!



### GREATER FLEXIBILITY

7 levels of pulse width offer a greater flexibility with respect to the traditional 3 levels offered by the other holmium devices



### CUTTING DOWN TREATMENT TIME

Obtain the desired effect quickly, without getting mad with the standard adjustment of energy and frequency parameters



### EASE OF TREATMENT

Experience a more intuitive and different way to adjust laser settings, simply based on your visual feedback





### FIBER RECOGNITION

Cyber Ho automatically adjusts emission settings based on the connected fiber diameter



#### AVAILABLE DIAMETERS

200, 272, 365, 550, 800 and 1000  $\mu\text{m}$



#### REUSABILITY

All regular fibers are available both as disposable and reusable



#### CLEANING

Reusable fibers can be sterilized by Sterrad® and steam sterilization



#### STERILIZATION TRAY

A dedicated tray for sterilization of fibers and tools

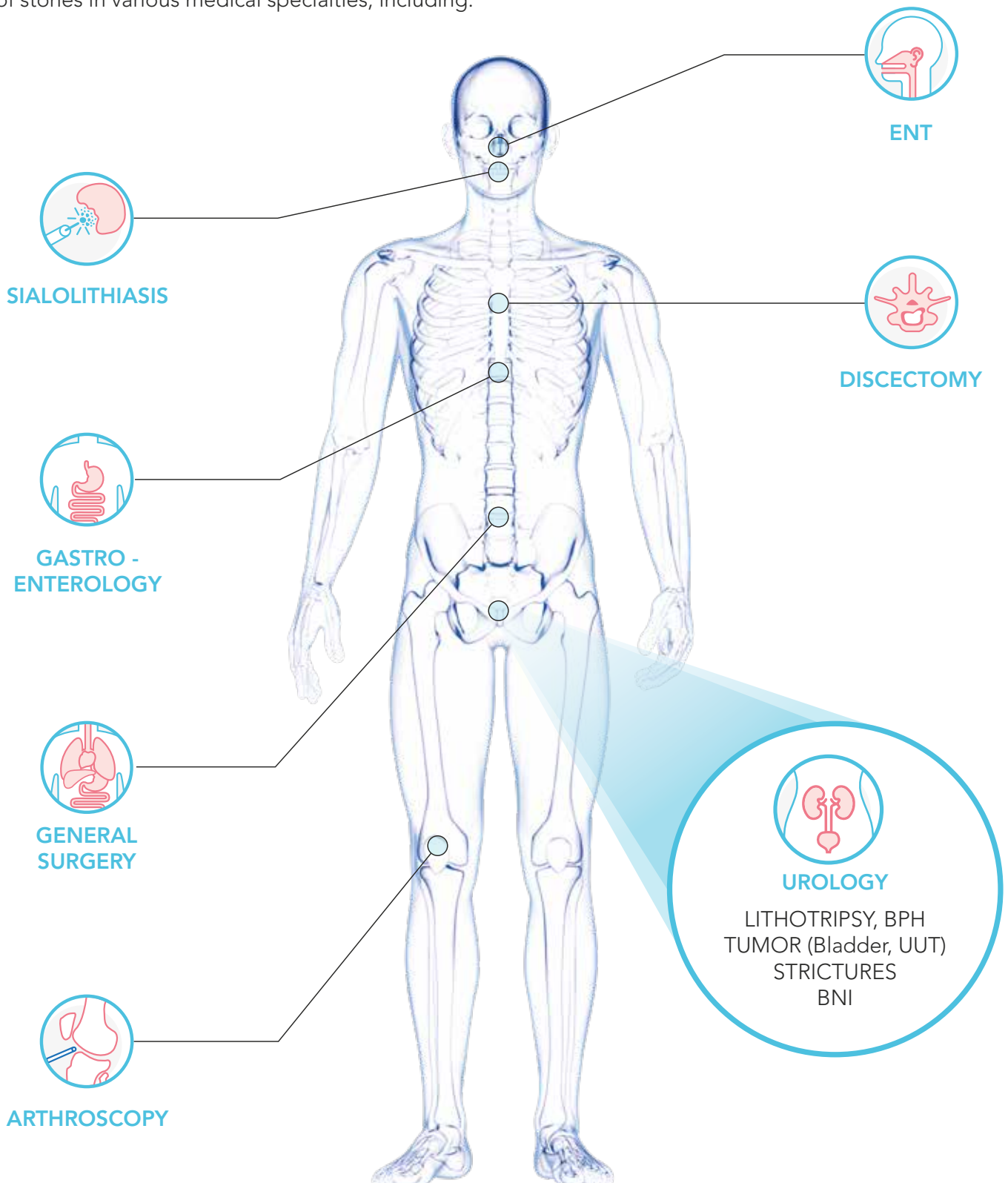


#### BALL TIP FIBER

This specific probe strongly simplifies the insertion in already bent scopes

# Applications

**Cyber Ho Family** can be used to perform incision, excision, resection, ablation, vaporization, coagulation and hemostasis of soft tissue and in lithotripsy of stones in various medical specialties, including:



# Technical Specifications

	Cyber Ho 60	Cyber Ho 100	Cyber Ho 150*
<b>Wavelength</b>	2,1 µm	2,1 µm	2,1 µm
<b>Average power</b>	Up to 60 W	Up to 105 W	Up to 152 W
<b>Repetition rate</b>	Up to 60 Hz	Up to 80 Hz	Up to 100 Hz
<b>Energy per pulse</b>	Up to 5 J	Up to 5 J	Up to 5 J
<b>Pulse duration</b>	50 ÷ 1100 µs	50 ÷ 1100 µs	50 ÷ 1100 µs
<b>Beam delivery</b>	Wide range of flexible silica fibers		
<b>Aiming beam</b>	532 nm (adjustable <5 mW) - Class 3R		
<b>Fiber recognition</b>	RFID System		
<b>Activation</b>	Double footswitch		
<b>Electrical requirements</b>	200-230 Vac; 50/60 Hz; 5 kVA (Cyber Ho 60) 230 Vac; 50/60 Hz; 6.2 kVA - 208 Vac; 50/60 Hz; 6.2 kVA (Cyber Ho 100) 220-230 Vac; 50/60 Hz; 7.36 kVA - 208 Vac; 50/60 Hz; 7.36 kVA (Cyber Ho 150)		
<b>Cooling</b>	Internal chiller		
<b>Operating temperature</b>	10°C ÷ 30°C		
<b>Laser class</b>	4		
<b>Dimensions and weight</b>	52 cm (W) x 120 cm (D) x 123 cm (H) (monitor closed), up to 230 kg		

\*Available from beginning of 2020

**VISIBLE AND INVISIBLE LASER RADIATION**

Avoid eye skin exposure to direct or scattered radiation

Laser product: Class 4

Aiming beam: Class 3R



CAUTION - Laser radiation

*Note: National local authorities may put restrictions to the parameters indicated in the above table, or may limit or remove certain intended uses. Specifications are subject to change without notice.*

Quanta System products are manufactured according to the International standards and have been cleared by the most important International notified bodies.

The Company is UNI EN ISO 9001:2015 and EN ISO 13485:2016 certified. Quanta System S.p.A. was founded in 1985 and belongs to the El. En. Group (a public company listed in the Star segment of the Italian Stock Exchange) since January 2004.

The company, divided into three business units (medical, scientific and industrial) is specialized in manufacturing of laser and opto-electronic devices.

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LASER IN OUR DNA

