

SWISS LITHOCLAST® TRILOGY

EXPERIENCE LITHOTRIPSY LIKE NEVER BEFORE



MORE THAN

11

MILLION

STONE

FREE

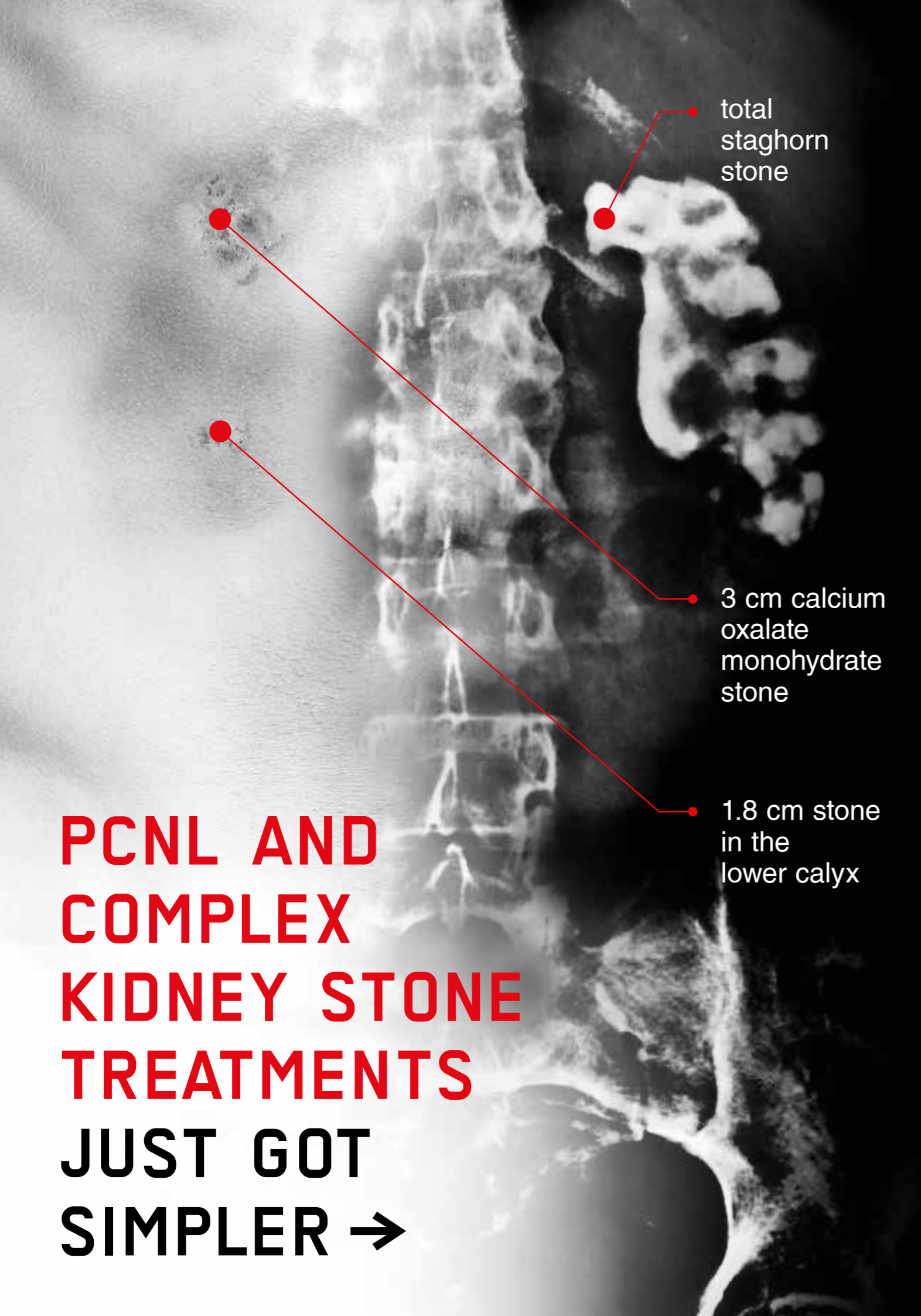
PATIENTS

SINCE 1991

ANDAR
INTERNATIONAL

andarint.com

EMS 



**PCNL AND
COMPLEX
KIDNEY STONE
TREATMENTS
JUST GOT
SIMPLER →**

total
staghorn
stone

3 cm calcium
oxalate
monohydrate
stone

1.8 cm stone
in the
lower calyx

EXPERIENCE LITHOTRIPSY LIKE NEVER BEFORE

- > When it comes to large and hard kidney stones, percutaneous nephrolithotomy (PCNL) can turn into a complex procedure.
- > What if you could clear any kind of stone, in any location, up to 48% more rapidly, easily and without compromising safety?
- > Today, Swiss LithoClast® Trilogy makes it possible: breakthrough technology designed to reduce procedure time and enhance the surgical experience for patient, urologist and OR staff.

FAST. EASY. SAFE.

TWICE AS FAST

UNPRECEDENTED STONE CLEARANCE EFFICIENCY
FOR SHORTER PCNL PROCEDURE TIME

BECAUSE TIME MATTERS

> Observational research¹ shows that stone fragmentation and removal account for **30%** of total PCNL procedure time; about 24 minutes on average in the USA.

CLEARANCE SPEED MATTERS

> Bench studies show that Swiss LithoClast® Trilogy fragments and removes stones up to 48% faster than competing dual-energy lithotripter^{2,3}.



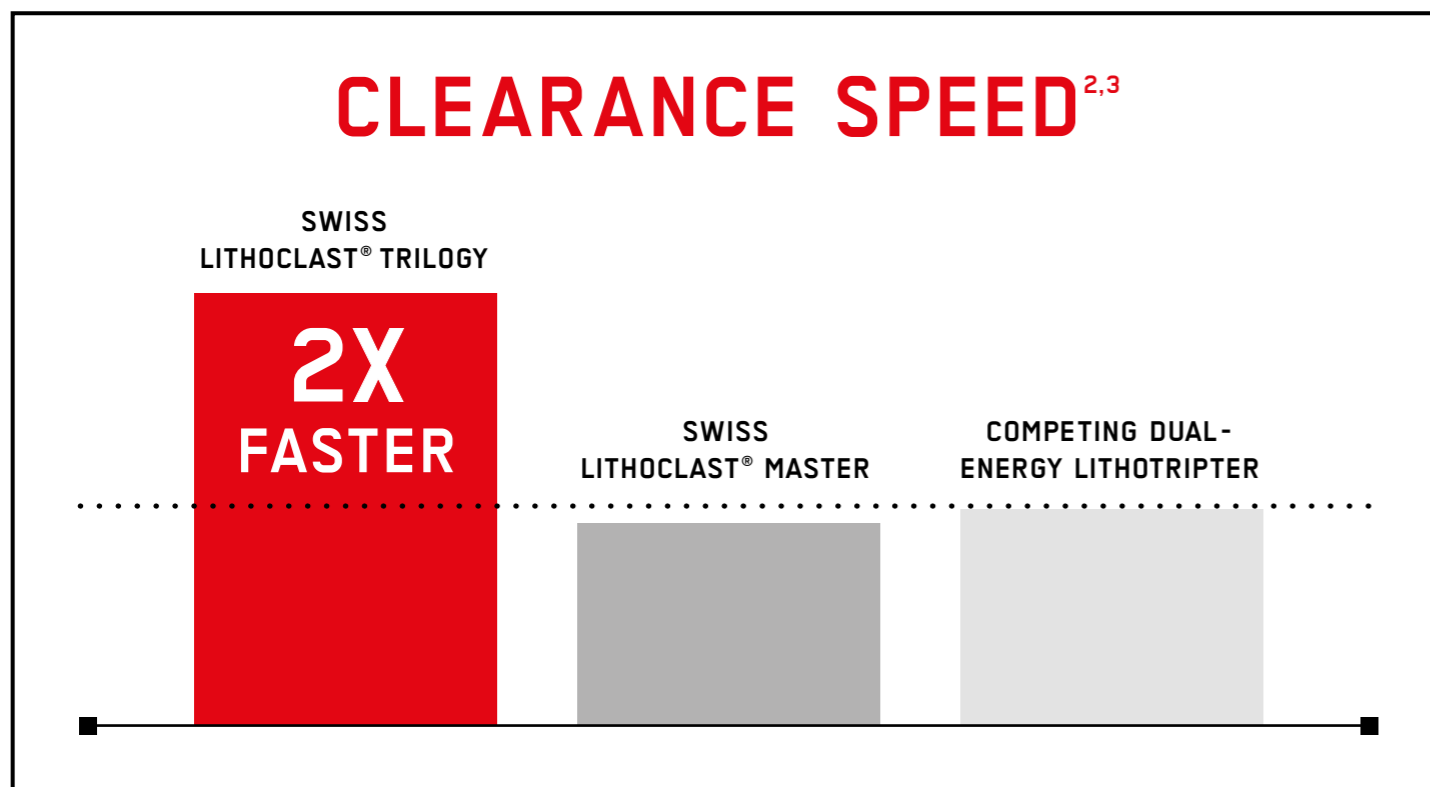
CLEARANCE SPEED^{2,3}

SWISS
LITHOCLAST® TRILOGY

**2X
FASTER**

SWISS
LITHOCLAST® MASTER

COMPETING DUAL-
ENERGY LITHOTRIPTER



¹ Studies on file with Boston Scientific.

² Bader MJ, et al. Endoscopic clearance lithotripsy devices: bench comparison of stone elimination capacity and drilling speed. University of Munich. Presented at the World Congress of Endourology, Vancouver, 2017.

³ Wollin, et al. in vitro comparison of a novel single-probe dual energy-lithotripter to current generation devices, Duke University. Presented at the World Congress of Endourology, Vancouver, 2017.

POWER AND CONTROL

POWERFUL FRAGMENTATION AND MORE EFFICIENT STONE REMOVAL FOR IMPROVED PROCEDURE OUTCOMES

EFFECTIVE FRAGMENTATION*

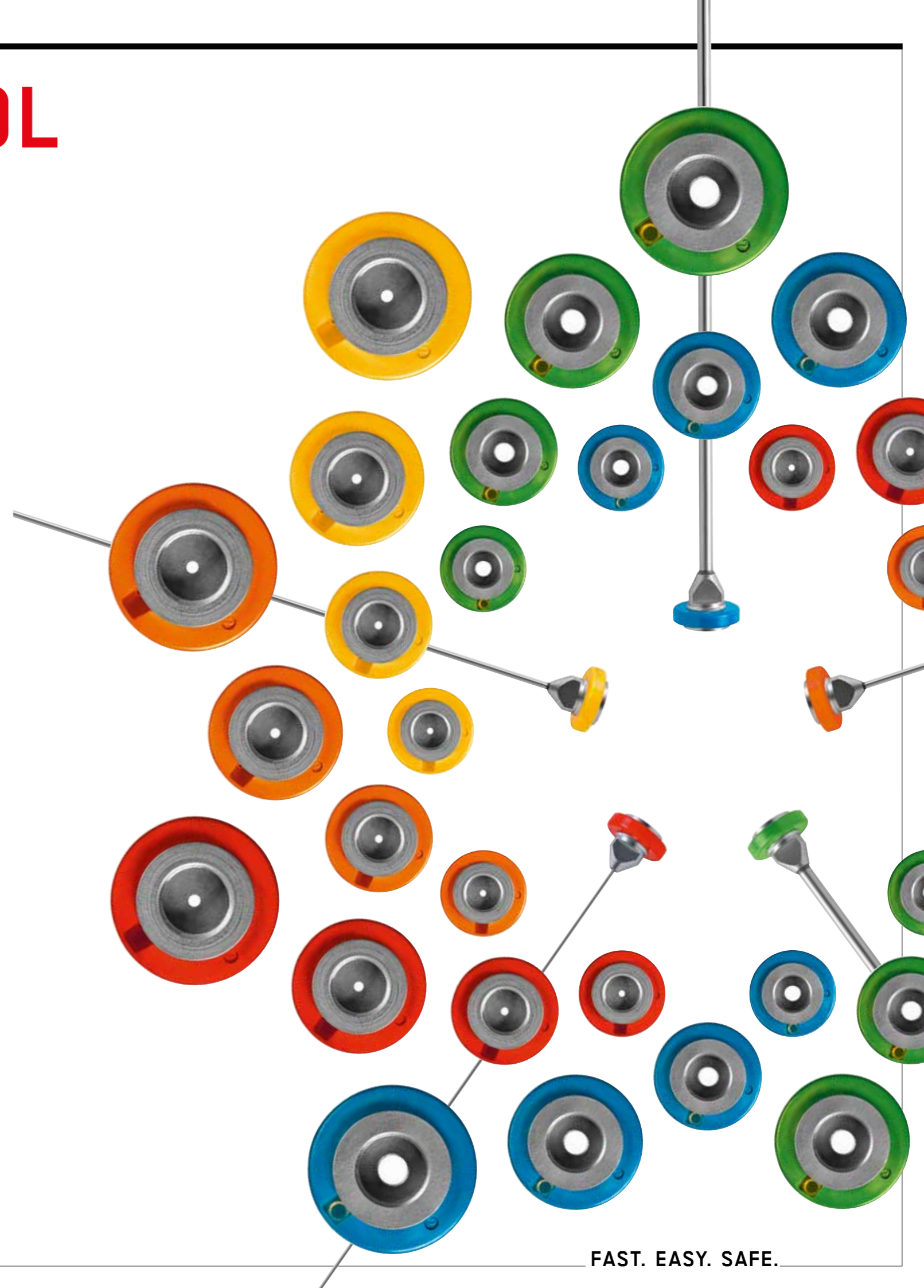
> Swiss LithoClast® Trilogy can fragment even the largest and hardest stones thanks to independently generated ultrasonic and ballistic energies that can be used **simultaneously or separately**.

MOST ACCURATE STONE CONTROL

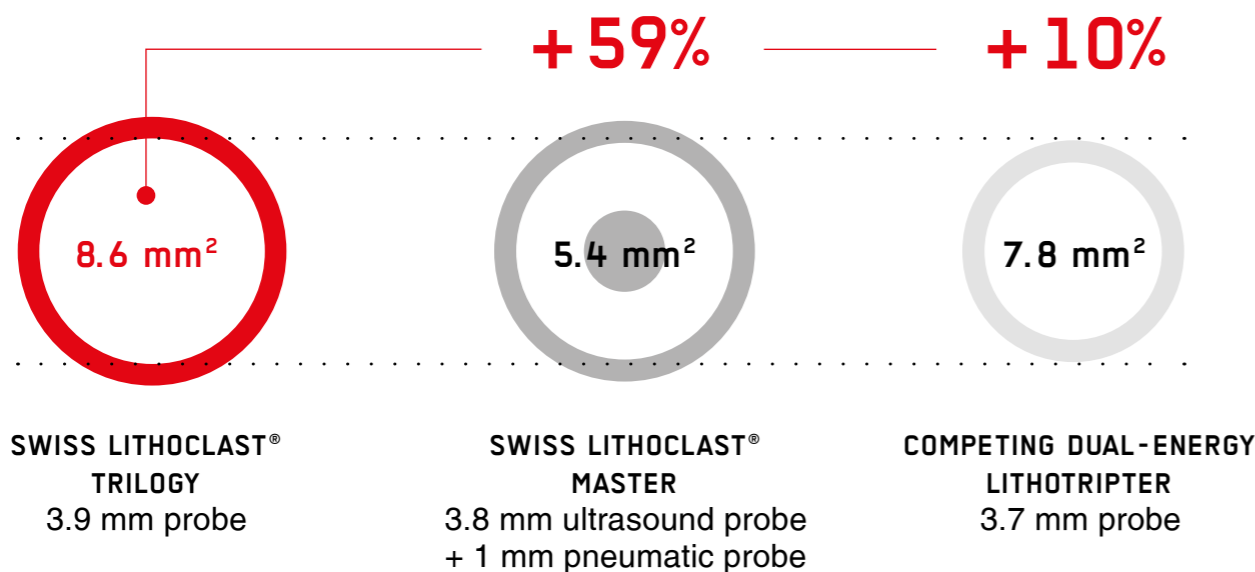
> Ballistic probe tip displacements are **8 time smaller** compared to pneumatic Swiss LithoClast®. Swiss LithoClast® Trilogy significantly reduces stone retropulsion effect.

LARGE FRAGMENTS REMOVAL CAPACITY

> Swiss LithoClast® Trilogy offers the **largest probe lumen** size, easing the removal of large stone fragments. In addition, the integrated suction system enables fast evacuation of all fragments.



CROSS-SECTION VIEW OF PROBE LUMEN*



* Data on file at E.M.S Electro Medical Systems S.A.

FOCUS ON THE ESSENTIAL

PLUG-AND-PLAY SYSTEM THAT IS SIMPLE TO LEARN AND EASY TO USE FOR PHYSICIANS AND STAFF

EASY

1. EASY SETUP

- > One single console fits all: no need for external compressor or suction pump.
- > Limited number of components for quick and effortless assembly.
- > Torque wrench guarantees optimum probe tightening in a single twist of the wrist.

2. EASY FRAGMENTATION

- > Contactless probe recognition and automatic calibration of the energy level.
- > Large touch screen designed for easy setting of all parameters.
- > Quality meter for visual monitoring of fragmentation procedure.

3. EASY STONE REMOVAL

- > Precise roller pump for optimized suction flow control.
- > Improved Stone Catcher for seamless and sterile fragment collection.
- > Fluid collection bags with solidifying gel for easy disposal.



“IT TAKES PROFOUND KNOWLEDGE
TO DO THINGS IN A SIMPLE MANNER”

Anne Robert Jacques TURGOT
General controller of finance, France, 1774

FAST. EASY. SAFE.

PATIENT CARE AT ITS BEST

PERSONALIZE YOUR STONE TREATMENT IN AN ENVIRONMENT OF CARE AND COMFORT

SAFE

Developed at the EMS Research Center in collaboration with leading urologists from around the world, Swiss LithoClast® Trilogy focuses its design and functionalities on users and patients alike with one goal in mind:

→ CLINICAL SUCCESS

1. VERSATILE

- A complete range of probes is available to suit individual patients' needs: from standard PCNL down to minimally invasive stone treatments (Miniperc) but also cystoscopy and semirigid ureteroscopy.
- The intuitive touch screen is helping the user to select treatment modalities and to customize energy and suction settings.

2. SMART



















- The integrated suction system is only activated during the treatment, limiting undesired stone movements and suction cup effects on mucosal tissue.
- An active cooling system regulates the temperature of the handpiece: This is good for your hand's comfort but also for the system durability.

3. TRACEABLE

- Contactless RFID tags for recording complete treatment parameters.
- Similarly, the service lifetime of each component may be monitored to make sure the system is ready for use at any time.

FAST. EASY. SAFE.

THE RIGHT SIZE FOR EACH PROCEDURE

PROCEDURE	SCOPE TYPE	SWISS LITHOCLAST® TRILOGY DISPOSABLE PROBE	PROBE DIAMETER & LENGTH	MINIMUM DIAMETER WORKING CHANNEL	MAXIMUM LENGTH WORKING CHANNEL	REFERENCE
PCNL	30 Fr Nephroscope (short)	Blue  	3.9 mm x 350 mm	12 Fr	330 mm	FR-245
PCNL	30 Fr Nephroscope (long)	Blue  	3.9 mm x 440 mm	12 Fr	420 mm	FR-246
PCNL	24 Fr Nephroscope (short)	Green  	3.4 mm x 340 mm	10.5 Fr	320 mm	FR-247
PCNL	24 Fr Nephroscope (long)	Green  	3.4 mm x 445 mm	10.5 Fr	420 mm	FR-248
Mini PCNL	Mininephroscope type R Wolf / Olympus	Yellow  	1.9 mm x 341 mm	6 Fr	320 mm	FR-249
Mini PCNL	Mininephroscope type Storz MIP-M	Orange  	1.5 mm x 440 mm	5 Fr	400 mm	FR-250
Mini PCNL	Mininephroscope	Red  	1.1 mm x 425 mm	4 Fr	400 mm	FR-252
URS	Semirigid ureteroscope	Red  	1.1 mm x 520 mm	4 Fr	500 mm	FR-253
URS	Semirigid ureteroscope	Red  	1.1 mm x 625 mm	4 Fr	600 mm	FR-254

THE POWER OF 3 TRILOGY MAKES IT POSSIBLE

**PATENTED
TECHNOLOGY**

BALLISTICS, ULTRASOUND AND SUCTION: 3 MODALITIES IN A SINGLE PROBE

1 SMART ULTRASONIC ENERGY MANAGEMENT

> Advanced auto-adaptive algorithm delivers precise, constant ultrasonic energy for fine fragmentation and dusting of stones.

2 TRUE BALLISTIC IMPACT

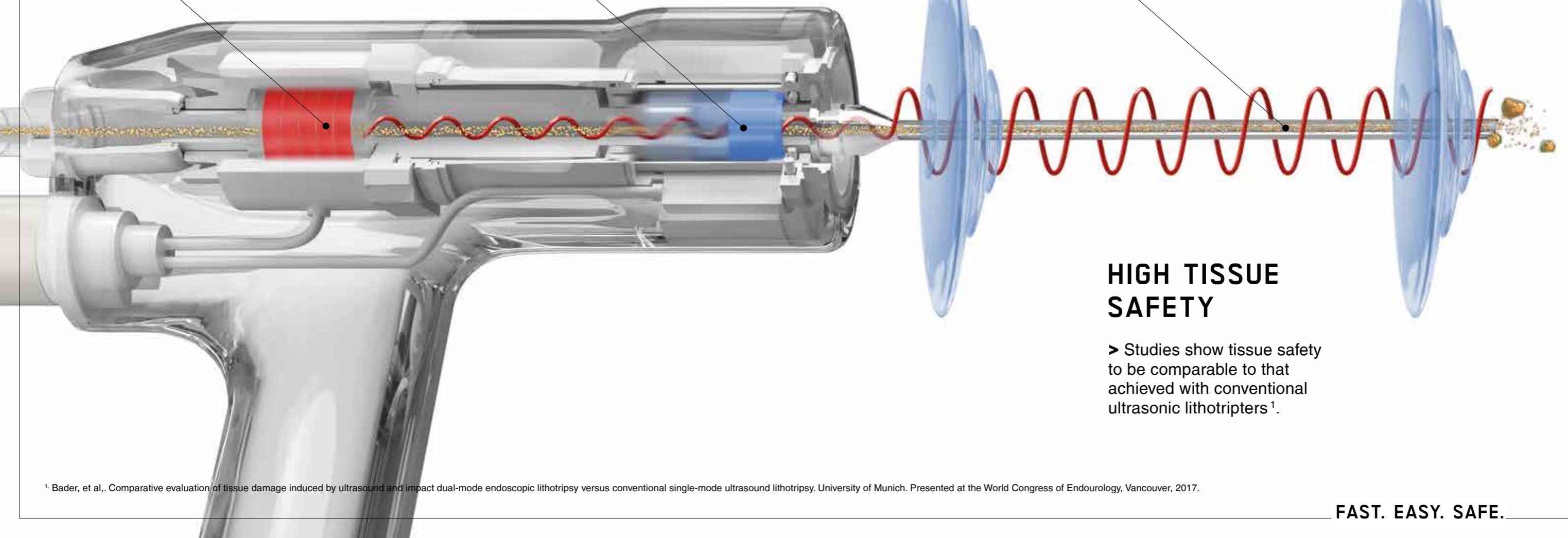
> Breakthrough electromagnetic technology generates real ballistic energy for powerful and coarse fragmentation of large and hard stones.

3 OUTSTANDING SUCTION CAPACITY

> Wide hollow probe and precise suction guarantee continuous removal of even large stone fragments.

HIGH TISSUE SAFETY

> Studies show tissue safety to be comparable to that achieved with conventional ultrasonic lithotripters¹.



¹ Bader, et al., Comparative evaluation of tissue damage induced by ultrasound and impact dual-mode endoscopic lithotripsy versus conventional single-mode ultrasound lithotripsy. University of Munich. Presented at the World Congress of Endourology, Vancouver, 2017.

A STORY OF TRUST

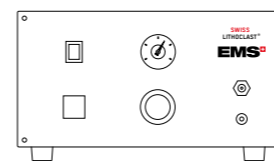
MORE THAN 11 MILLION STONE-FREE PATIENTS

> A distinct desire for innovation, a unique idea and a drive to meet the challenge: combining these ingredients, Bernd Bühner founded EMS Electro Medical Systems in Switzerland's Vallée de Joux in 1981. With a history spanning more than 30 years, EMS has launched a multitude of inventions and patents thus writing new chapters in the fields of dental prophylaxis, physiotherapy and stone management.

> Today, over 700 qualified and specialized employees collaborate around the world to implement the EMS philosophy and to turn visionary ideas into pioneering solutions. With a proven track-record of game-changing products, EMS is committed to delivering innovative and clinically proven solutions and improving the quality of life for the patients.



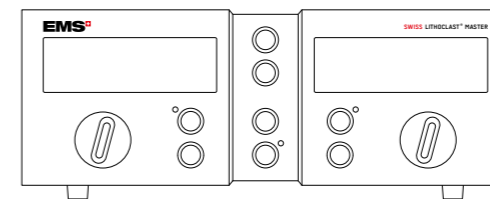
EMS IS AT THE FOREFRONT OF TECHNOLOGICAL DEVELOPMENT BY CONSISTENTLY LAUNCHING GAME-CHANGING PRODUCTS →



**SWISS
LITHOCLAST®**

1991

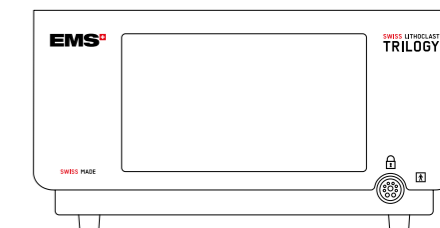
> EMS invents the first intracorporeal ballistic lithotripter, the Swiss LithoClast®. This revolutionary solution safely frees patients from stones while avoiding complex open surgery.



**SWISS
LITHOCLAST® MASTER**

2001

> EMS combines its patented ballistic technology with ultrasound to address all type of stones in a single procedure. The Swiss LithoClast® Master quickly becomes the gold standard and pacesetter in combined rigid lithotripsy.



**SWISS
LITHOCLAST® TRILOGY**

2018

> EMS offers the new standard for multimodal endoscopic stone management. The Swiss LithoClast® Trilogy takes lithotripsy to a new level, greatly improving overall clinical performance, safety and cost-effectiveness of stone management.

HISTORY & FUTURE OF STONE MANAGEMENT

> With over 14,000 Swiss LithoClast® devices in use worldwide and more than 11 million stone-free patients in over 25 years, EMS has revolutionized rigid endoscopic lithotripsy. Safe, efficient and cost-effective, Swiss LithoClast® is today's most commonly used rigid endoscopic stone treatment method. Our Swiss quality products continue to shape the history and future of stone management.

WHAT'S IN THE BOX?

SWISS LITHOCLAST® TRILOGY SYSTEM

Swiss LithoClast® Trilogy unit includes peristaltic pump, Trilogy handpiece and foot pedal

FT-232#

SWISS LITHOCLAST® TRILOGY HANDPIECE KIT

FR-278#

SWISS LITHOCLAST® TRILOGY ACCESSORIES

Stone Catcher for Swiss LithoClast® Trilogy, sterile, box of 5

DT-483

Double suction bags, box of 5

DT-480

Replacement bags, box of 10

DT-481

Torque wrench

DT-492

Steri-holder for handpiece

FR-327

Cart for Swiss LithoClast® Trilogy

DW-047



**EXPERIENCE
LITHOTRIPSY
LIKE NEVER
BEFORE**

"The information in this brochure is solely intended for medical and healthcare professionals.
The brochure provides information on products and indications that may not be available in all countries."

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