

# Sonolith<sup>®</sup>

(((i-sys

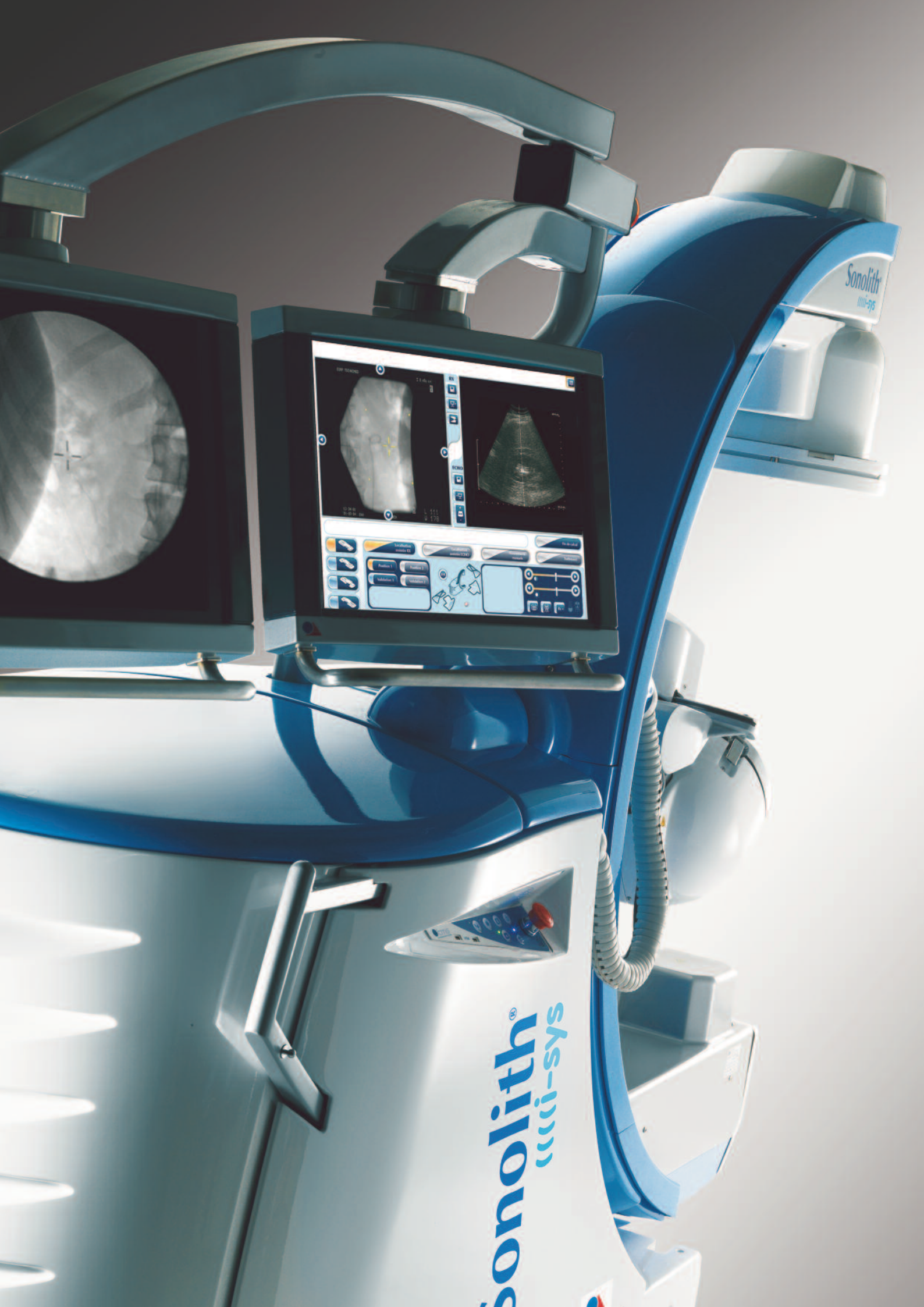


***Power, accuracy  
and user-friendliness ...  
... at your fingertip***



edaptms

Bringing New Horizons to Therapy



Sonolith  
mini-sys

Sonolith®  
mini-sys

# 35 years of innovation in ESWL

A long history of success



## Electroconductive Technology



Sonolith® i-sys  
 Sonolith® i-move  
 Sonolith® Vision  
 Sonolith® Praktis



## Piezoelectric Technology



LT 02  
 LT 01

## Electrohydraulic Technology



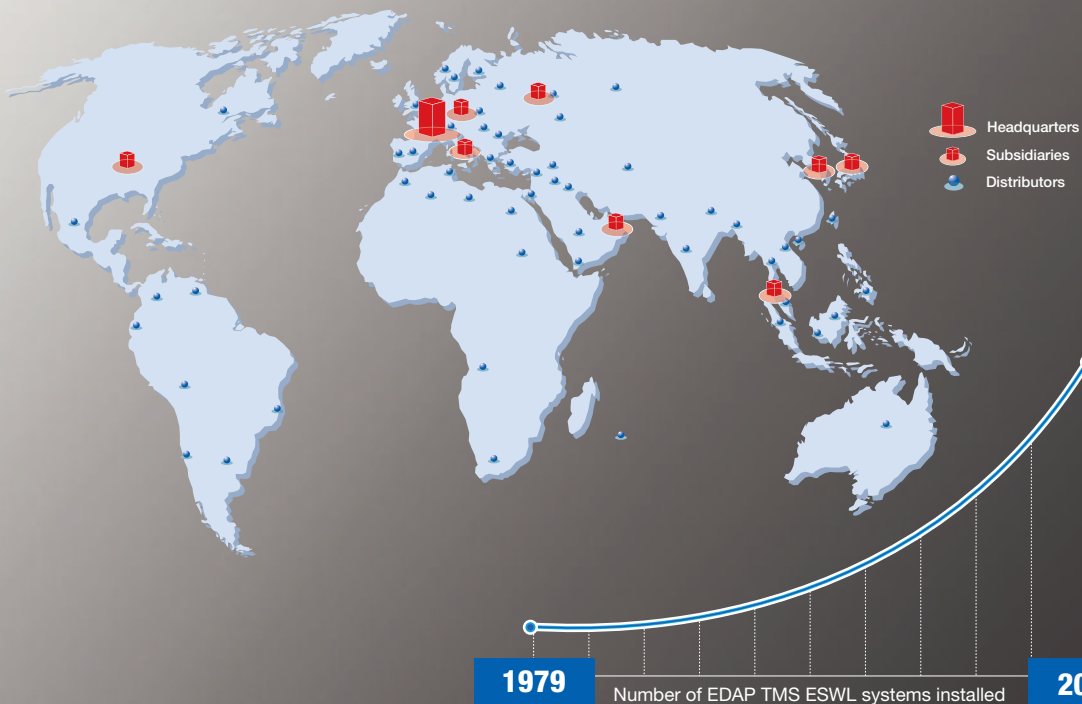
Sonolith® 4000  
 Sonolith® 3000  
 Sonolith® 2000  
 Sonolith® 1000

EDAP TMS has an impressive track record of thirty-five years of innovation in Therapeutic Ultrasound with a particular focus on ESWL and HIFU (High Intensity Focused Ultrasound). Through technological, conceptual and clinical breakthroughs, EDAP TMS has revolutionized ESWL: the first patient membrane interface (replacing the bathtub), piezo-electric technology, in-line Ultrasound imaging and the modular lithotripter concept were all introduced by EDAP TMS.



A recent addition to an already impressive patent portfolio, developed in conjunction with the INSERM, the French National Institute of Health and Medical Research, is ElectroConductive Lithotripsy ("ECL"). ECL is proprietary to EDAP TMS and utilized on all of its lithotripters.

## Worldwide presence for the fastest growing network of users



# Electroconductive technology: the new standard in ESWL

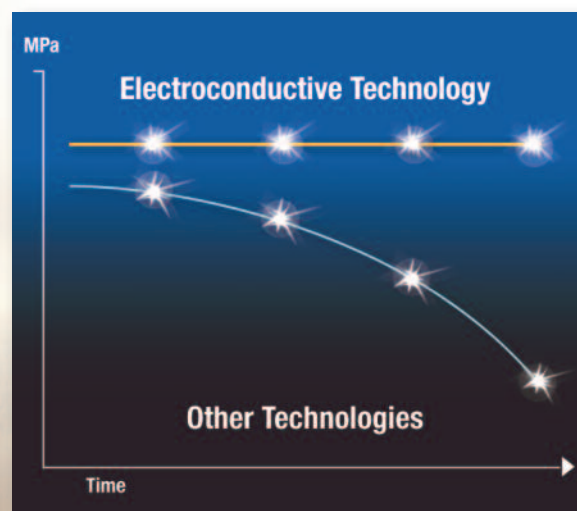
Exclusive

by EDAP TMS

## Technology

by EDAP TMS

### Automatic Pressure Regulator



The exclusive **Automatic Pressure Regulator** measures and adjusts in real time the pressure at the focal point. This system ensures consistency shock after shock so every patient benefits from the same treatment quality, month after month.

Exclusive

by EDAP TMS

### A powerful and reliable principle

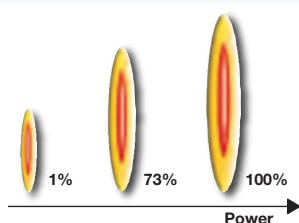
The patented Electroconductive technology is based on a precisely controlled electrical discharge in a highly conductive solution:

- All electrical discharges are identical,
- The origin (F1) of every shockwave is consistent,
- Every shockwave is perfectly focused at the same point (F2).

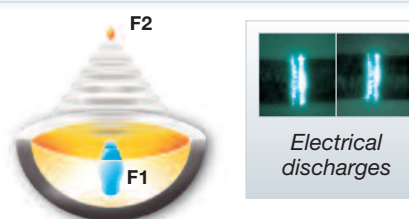
### Uniform efficacy on all stone types and sizes

- Extensive range of settings
- Variable energy density
- Variable focal volume

#### Variable focal volume



#### Electroconductive shockwave source

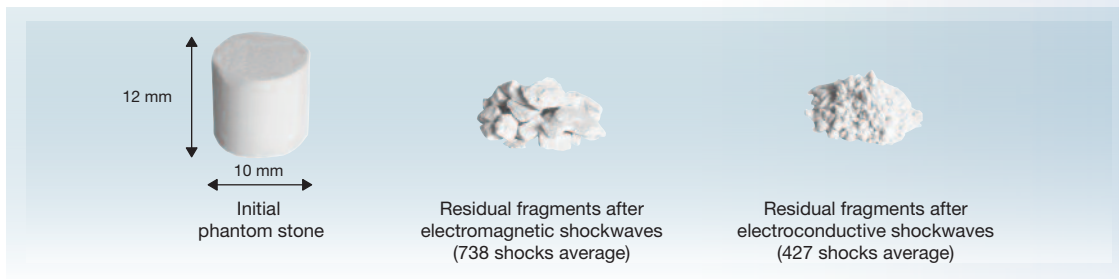


*"The results of treatments with the Sonolith® Electroconductive technology should be regarded as the new benchmark for the comparative assessment of new-generation lithotripters."*

Dr. David A. Tolley - The Scottish Lithotripter Centre, Western General Hospital, Edinburgh - UK

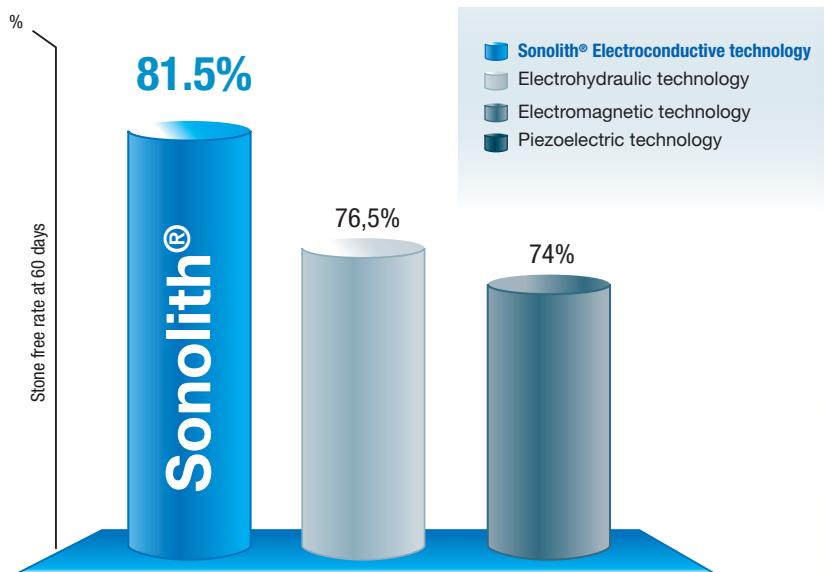
## The finest fragmentation

The attributes to look for in modern shockwave technology are not only the ability to fragment stones, but more critically, the ability to do so wherever possible in a single sitting without the patient returning for retreatment and also to avoid steinstrasse. The unique and patented Electroconductive technology (ECL) utilized in the Sonolith® i-sys is endowed with just the right combination of high pressure and focal size adaptability to pulverize stones into fragments small enough to be eliminated naturally. The comparison below of residual fragments after the in-vitro fragmentation of a phantom stone (left) using an electromagnetic shockwave generator (middle) and the Sonolith® i-sys ECL source (right) provides clear evidence of finer fragmentation... achieved with fewer shocks.



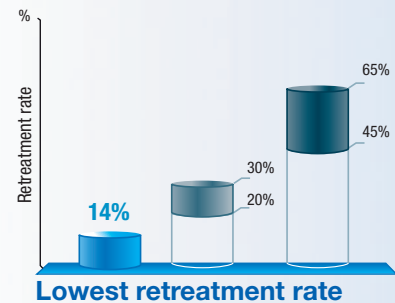
## The best clinical results

EDAP TMS Electroconductive technology is clinically proven superior compared to other existing technologies:



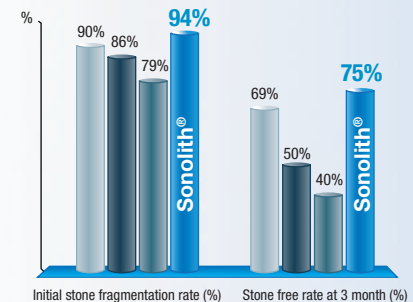
### Highest stone free rate

Saltutti C, Di Benedetto A, et al. Extracorporeal lithotripters: is there a gold standard? In Vivo multifunctional comparison between 6 mobile devices. Congresso Nazionale AURO. IT, Roma, Italy, 2003



### Lowest retreatment rate

Nomikos MS, Sowter SJ, Tolley DA. Outcomes using a fourth-generation lithotripter: a new benchmark for comparison? BJU international. 2007.  
Rassweiler J, Taily G, Chaussy C. Progress in lithotripter technology. EAU Update Series. 2005;3:17-36.



### Finest fragmentation

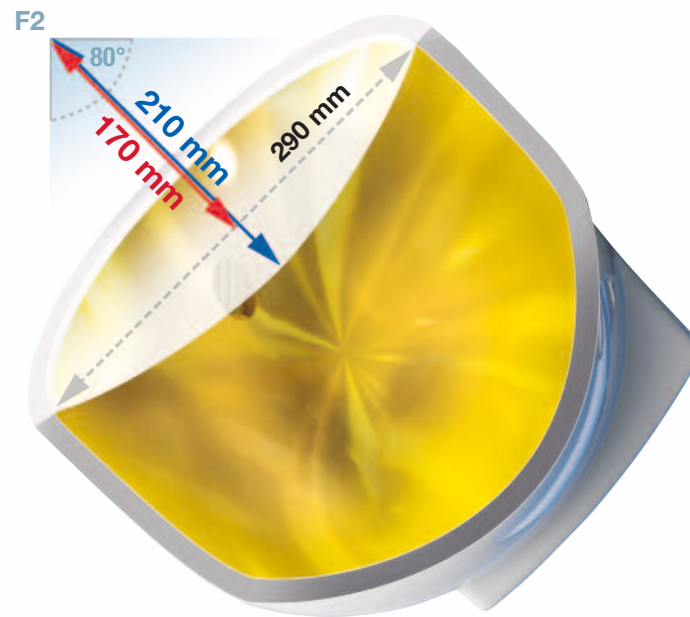
Ng C.F., Thompson T.J., McLornan L., and Tolley D.A., M.D. Single-Center Experience Using Three Shockwave Lithotripters with Different Generator Designs in Management of Urinary Calculi. Journal of Endourology, Volume 20, Number 1, January 2006.  
Nomikos M. S., Sowter S.J., Tolley D.A. Outcomes using a fourth-generation lithotripter: a new benchmark for comparison? BJU International. 2007

# Designed with the patient in mind

## Leave no stone unturned

The unique design of the DIATRON IV generator adapts to any situation and to any patient:

- Treatment depth up to 210 mm adapted to your **obese population**,
- Easy reach of **lower ureteric stones**,
- 290 mm wide aperture for **patient comfort** and diffusion of pain at patient skin,
- 80° angle of aperture for **larger acoustic window**,
- Flexible silicone membrane inflates and deflates to accommodate all types of patients: **pediatrics**, **bariatrics**, etc.



## X-Ray isocentric robotized movements

- The Sonolith® i-sys is equipped with a high-power 15 kW generator and high-resolution 23 or 31 cm Image Intensifier with latest technology 1k<sup>2</sup> camera to image every patients.
- Some clinical situations require lateral projections, other transverse ones. Thanks to its motorized isocentric movements, in both projections, the focal point is always maintained in the center of the field of view.



*"We finally have the ability to treat kidney stones on children as well as ureteric stones on obese patients with a single lithotripter."*

*Pr. Xavier Martin - Head of Urology Department  
Edouard Herriot University Hospital, Lyon - France*

## The appropriate generator position

The motorized movement of the generator allows easy pinpoint positioning every time:

- To find the **best acoustic window**,
- To **avoid gas pockets**,
- To treat from the side, from below or from any intermediate position to **adapt to the patient and his clinical condition**.



**ESWL**

by EDAP TMS

# Stone localization and treatment

## Simultaneous dual imaging and treatment

Never has a lithotripter been so operator-friendly. With the Sonolith® i-sys, there is no need to choose one imaging modality over the other. Shockwave generation, X-ray and Ultrasound imaging can all be performed simultaneously. No more dilemmas.



## The stereotactic lithotripsy

- End of the inline/outline debate
- Natural, easy and unrestrained stone exploration
- Smooth and precise localization with no movement limitation
- Ability to seek the best acoustic window
- Radiation free treatment
- Real-time follow-up during treatment







## **Stone Locking System**



### **Scan**

the patient with ultrasound in hand and/or with robotized X-Ray



### **Touch**

the stone displayed on screen. The stone is automatically positioned at the focal point by the motorized patient support



### **Treat**

with the desired parameters for fine and effective stone fragmentation



### **Track**

in real-time the stone fragmentation with the ultrasound probe on its support or with X-Ray. Always stay on target with the 3D reconstruction

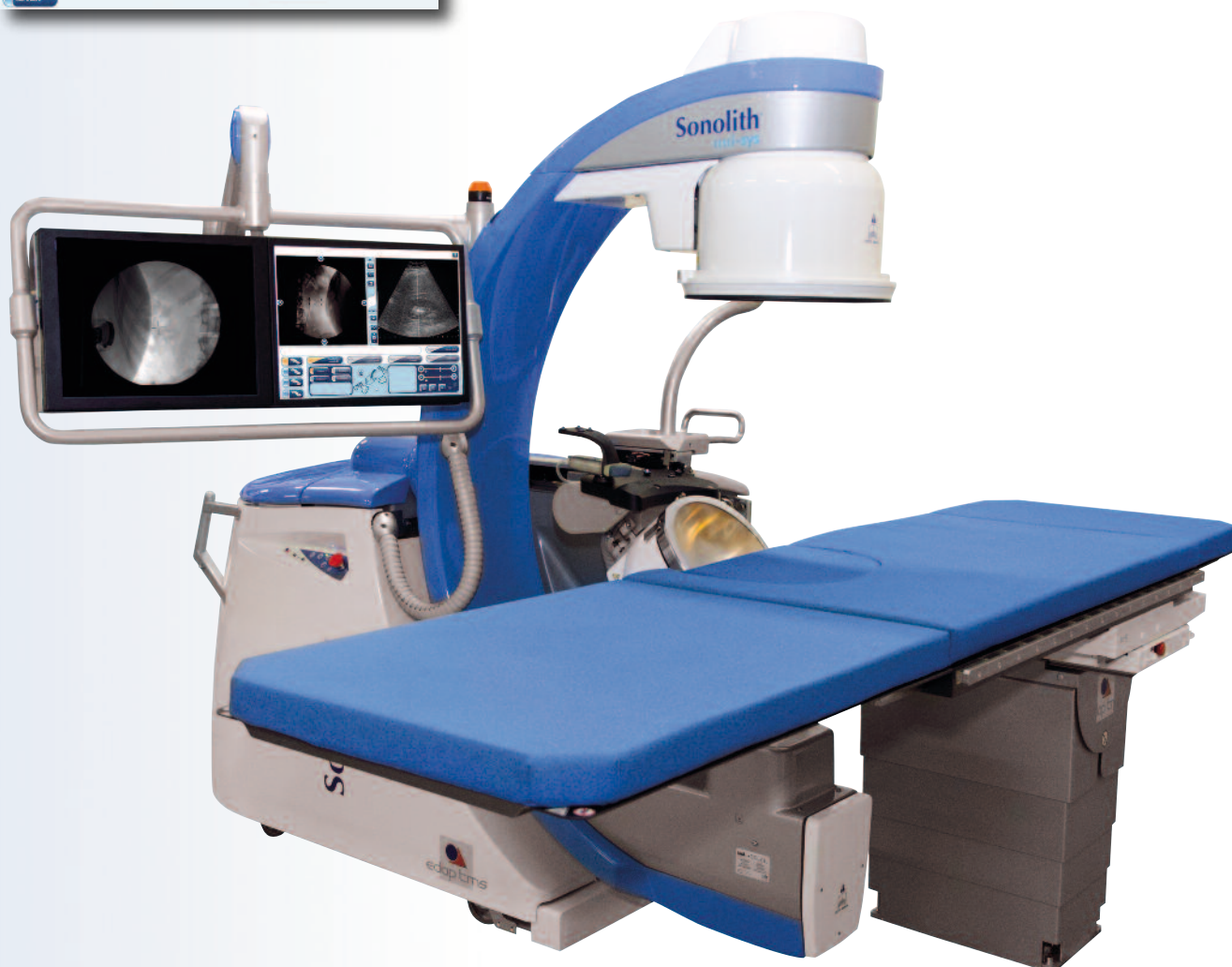
# Sonolith® i-sys

An integrated and connected platform



## Ergonomics and connectivity

Healthcare providers of the twenty-first century face new challenges to get the most out of new technology. The Sonolith® i-sys is DICOM 3.0 compatible thereby allowing free-flowing transfer of data and images between devices and the hospital server.



# Sonolith® i-sys

## A versatile platform

### Endo-urological procedures

With a three-side access endo-urological table, a carbon top and a full range of accessories, the Sonolith® i-sys doubles up as a true endo-urological workstation.

#### Endo-Uro

by EDAP TMS



### Safety

In order to minimize exposure for the medical staff, Sonolith® i-sys can be entirely controlled from a mobile remote console behind a protective panel or from a control desktop in an adjacent room. All steps of the ESWL treatment can be operated remotely: patient database, X-ray, C-arm movements, table displacement and treatment parameters settings. ESWL has never been so easy, safe and efficient.

#### Safety

by EDAP TMS





**You Master Urology**

**We Master  
Therapeutic Ultrasound**

Global leader in therapeutic ultrasound and present in the market for more than 35 years, EDAP TMS develops, manufactures, promotes and distributes minimally-invasive medical devices for urology using ultrasound technology. EDAP TMS is actively operating worldwide via an extensive network of corporate offices, subsidiaries and distribution partners. By constantly investing in Research & Development and partnering with

internationally renowned medical research institutions, EDAP TMS has developed a strong valuable patent portfolio based on its innovative technologies. With its complete range of Robotic HIFU devices, EDAP TMS is the most innovative company in minimally-invasive treatment for localized prostate cancer. By combining the latest technologies in imaging and treatment modalities, EDAP TMS just introduced the Focal One® as the

answer to all requirements for ideal focal therapy of prostate cancer as a complement to the existing Ablatherm® HIFU. As a pioneer and key player in the field of extracorporeal lithotripsy (ESWL), EDAP TMS introduced the first modular lithotripter. The latest generation of shock wave source is utilized exclusively by EDAP TMS in its Sonolith® range of ESWL systems (Sonolith® i-sys and Sonolith® i-move).

[www.edap-tms.com](http://www.edap-tms.com)



Bringing New Horizons to Therapy

EDAP TMS - 4, rue du Dauphiné - PA La Poudrette Lamartine - 69120 Vaulx-en-Velin - FRANCE  
Tél : +33 (0)4 72 15 31 50 - Fax : +33 (0)4 72 15 31 51 - [www.edap-tms.com](http://www.edap-tms.com) - [contact@edap-tms.com](mailto:contact@edap-tms.com)

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