

# PiezoWave<sup>2</sup>S

Versatile. Durable. Precise.



## Der PiezoWave<sup>25</sup>

### Expand your range of treatments

Extracorporeal shockwave therapy (ESWT) with the PiezoWave<sup>25</sup> is a unique therapeutic option now firmly established for the treatment of a range of indications, with new areas of application being added all the time. A large number of scientific studies, some of them using the Richard Wolf/ELvation Medical shockwave devices, have impressively demonstrated the efficacy of ESWT.

Piezo shockwave treatment is characterized by a precise mechanical pressure pulse generated intracorporeally in the target treatment area. The PiezoWave<sup>25</sup> creates a barely perceptible, direct-focusing pressure wave outside the body without using reflectors. This external pressure wave develops into a shockwave in the target treatment area.

The impact at the skin coupling site and on surrounding tissue is safe, gentle and sensitive.

Extracorporeal shockwaves function as mechanical stressors which elicit specific tissue reactions. This process is known as mechanotransduction.

ESWT is one of the few medical technologies which is able to efficaciously and sustainably restart self-healing processes and support them effectively.

Offer added value to your patients who are consciously trying to maintain their physical capacities over the longer term and are looking for a gentle regenerative therapy.



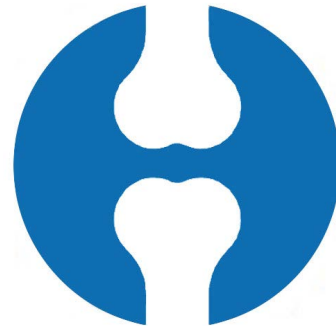
# ESWT

## A success story across different medical specialties

### A regenerative therapy to treat musculoskeletal disorders

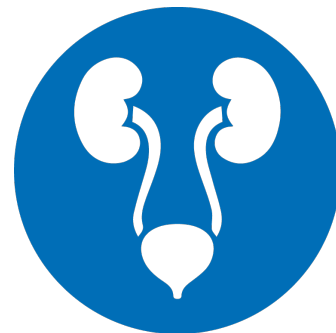
All over the world, ESWT is now considered a first-choice therapy method to treat musculoskeletal disorders. It is also successfully used to treat myofascial pain syndromes. The precise focus of the PiezoWave<sup>2</sup> has proven to be particularly effective at diagnosing and treating trigger points.

The piezo shockwave allows you to precisely find and treat your patient's pain points.



### Dare to explore new paths to treat ED, CPPS, IPP

New therapeutic approaches to treat ED, IPP and CPPS using ESWT have shown promising results. ELvation Medical GmbH and Richard Wolf GmbH have developed a special therapy source (F10G10, see p. 5) to treat the pelvic floor, a source which takes account of the special anatomy of the pelvic floor. The elongated focal zone of this therapy source also covers the prostate and includes any trigger points located in the different muscular layers of the pelvic floor.



### Offer solutions to treat chronic wounds

A number of scientific studies and publications, some of which have also used focused piezo shockwaves, have described the mechanism of action of ESWT in stimulating wound healing. Basically, ESWT is a strong, targeted, mechanical stimulus which encourages biological self-healing processes. On closer examination, wound healing is the result of a series of complex shock-wave effects.



## Versatile.

### The right therapy source for every indication

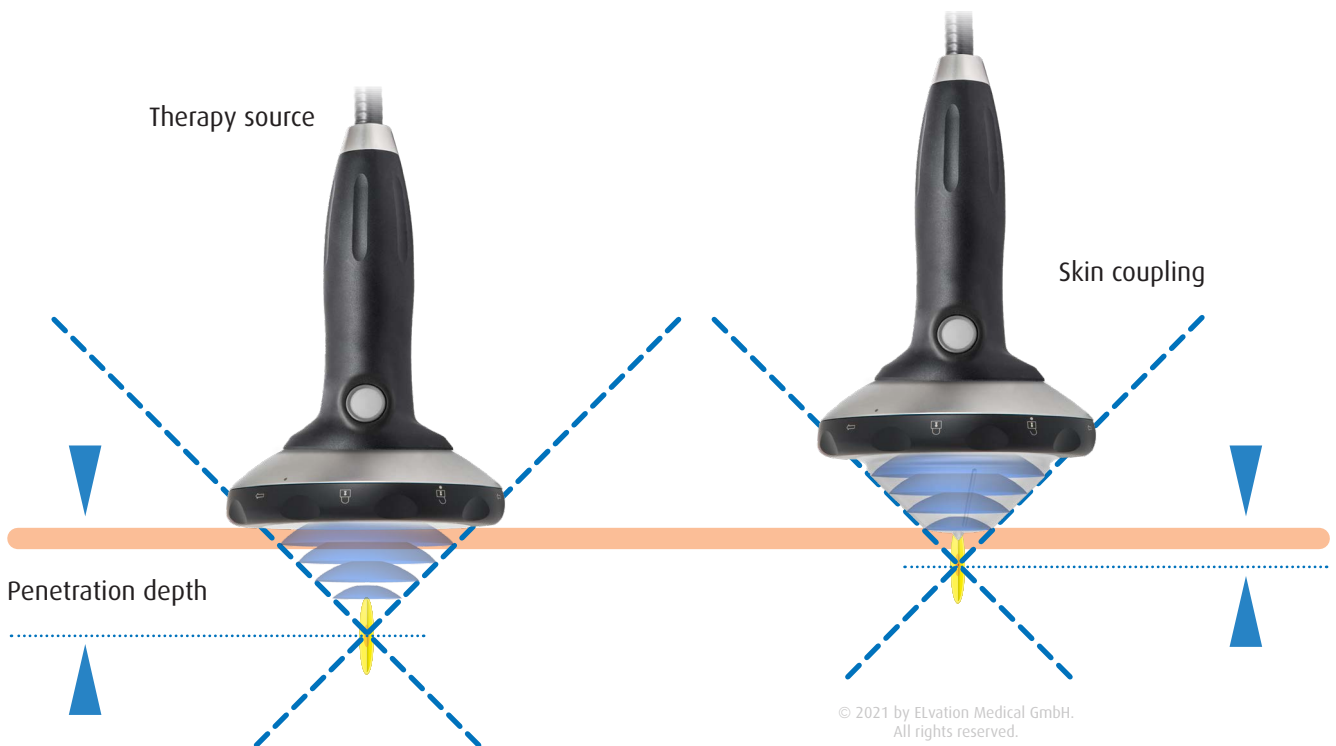
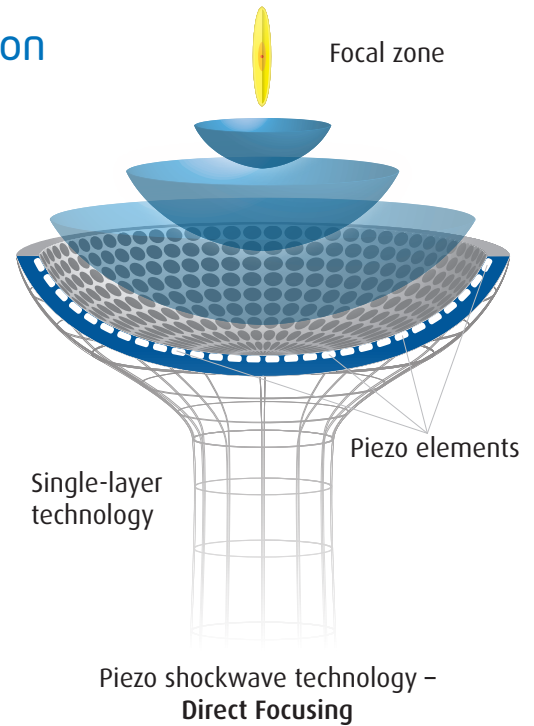
The piezo-ceramic elements are mounted on a curved concave surface in a mosaic-like pattern. A high-voltage pulse causes the piezo-ceramic elements to briefly and simultaneously expand by a few micrometers, generating a pressure pulse.

The piezo-ceramic elements are precisely aligned with the therapy focus. The precise focusing of the pulses results in shockwave formation at the focus of treatment.

The mosaic-like placement of the piezo-ceramic elements allows them to be arranged in any shape, which means they can be used in numerous different focal arrangements.

Therapy sources tailored to the indication.

Pulses are activated using a manual switch or, alternatively, using an optional footswitch. The footswitch can also be used to adjust the intensity. This makes it possible to precisely control and direct the therapy source during treatment.



## Skin coupling and penetration depths

The piezo shockwave device uses exchangeable gel pads to achieve subtle, low-loss gradations of penetration depths. The gel pads are used as spacers and adjust the penetration depth in increments of 5 mm. Penetration depths ranging from 5 mm to 100 mm at the focal center are possible,

depending on the therapy source used.

As varied and individual as your patients' needs. With the PiezoWave<sup>25</sup> you can decide for yourself which single-layer therapy source is best suited to your requirements and will meet the requirements of your main areas of application.



### F7G3 – small and convenient

The smallest of the therapy sources with a small, extremely precise focus. Light and convenient, suitable for all applications, with a maximum penetration depth of 30 mm (at the focal center).



Max. penetration depth	
Focal center	30 mm
Distal focus	40 mm
Max. energy flux density	0,4 mJ/mm <sup>2</sup>



### F10G4 – the allrounder with an exceptional performance

Our therapy source "bestseller" with unbeatable maximum energy flux density of 0.822 mJ/mm<sup>2</sup> and a maximum penetration depth of 40 mm (at the focal center). It is chiefly used to treat musculoskeletal disorders.



Max. penetration depth	
Focal center	40 mm
Distal focus	66 mm
Max. energy flux density	0,82 mJ/mm <sup>2</sup>



### F10G10 – deep penetration depth with an elongated focal zone

This therapy source sets new standards for the treatment of deep-set structures. It has a maximum penetration depth of 100 mm (focal center) and is characterized by an extremely elongated focal zone. In addition to its use in urology, it is also used for special musculoskeletal treatment applications.



Max. penetration depth	
Focal center	100 mm
Distal focus	172 mm
Max. energy flux density	0,3 mJ/mm <sup>2</sup>

Focal center: the point with the highest acoustic pressure.

Distal focus: maximum penetration depth / acoustic pressure is at least 5 MPa.

All values refer to the total energy flux density.

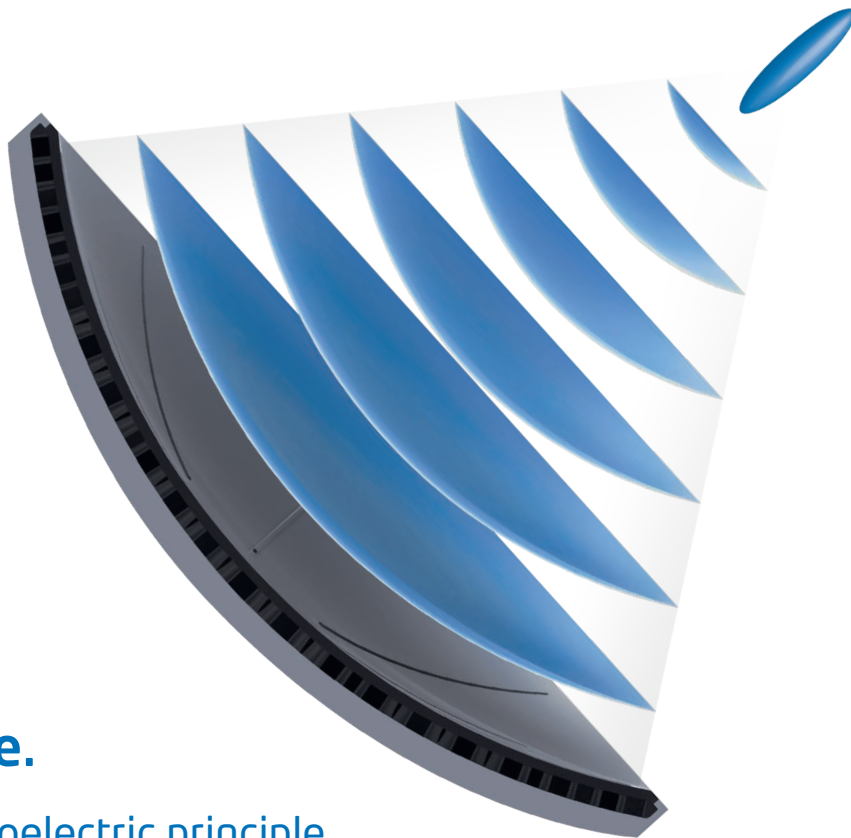
## Durable.

### The piezoelectric principle: a pledge of durability and reliability

Using piezo-ceramic elements to generate shockwaves makes the Piezowave<sup>2</sup> an ingenious but uncomplicated device. Gel pads are used to make coupling pinpoint accurate, with the help of a contact gel which was specially developed for ESWT applications, making the device almost maintenance-free. Dispensing with a water circulation system eliminates the need for all such associated maintenance work as regular emptying, de-aerating, etc.

Richard Wolf GmbH und ELvation Medical GmbH – two strong partners united for your benefit. Research, the development of applications, and manufacturing is carried out exclusively in Germany, with maximum precision and an outstanding commitment to quality. With more than 30-years' experience in defining and manufacturing piezo shockwave devices, you are getting a product that sets new standards in its workmanship in terms of durability and reliability.

And that is why we give our exclusive guaranteed promise of up to 5 million shockwave pulses



## Precise.

### The piezoelectric principle has a maximally effective impact

Piezo shockwave technology utilizes what is known as "direct focusing" and makes use of this principle in all of its therapy sources. This means that sound fields with the required output parameters for your respective treatment are generated directly – without "unnecessary" acoustic field deflections using reflectors or acoustic lenses and the potentially associated loss of performance.

The compact design of the therapy source creates a precise, clearly defined focal zone. Treatment is quiet, painless and allows you to freely regulate the intensity without unwanted effects impacting on the focal size.

This means that you will always be in control of the emitted energy: pulse for pulse, you will get the precise output you need.

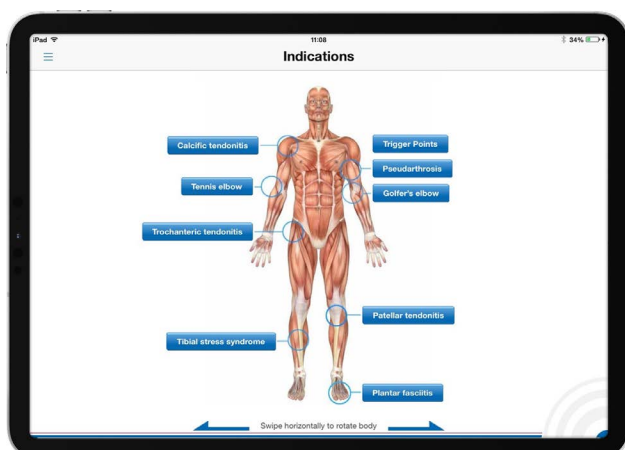
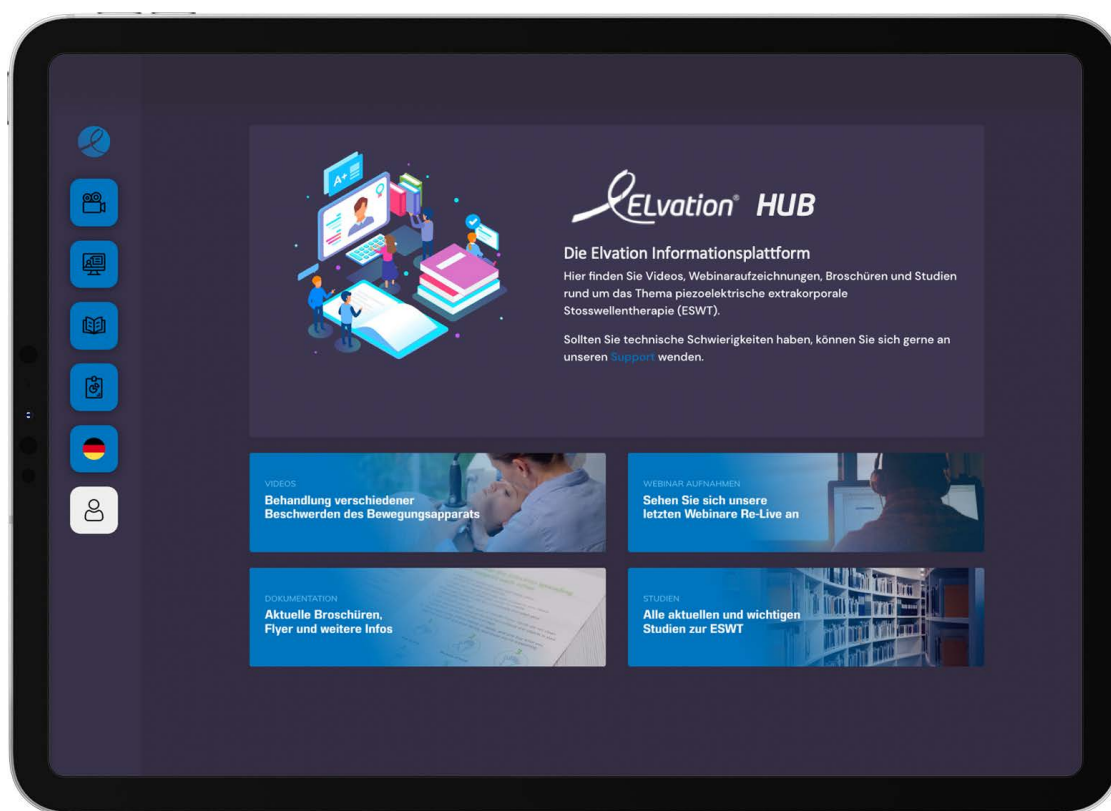
# The ELvation HUB

## A synopsis of our experience – Stay up-to-date!

ELvation HUB is the newly implemented web-based information and e-learning platform of ELvation Medical GmbH. With this platform we want to ensure that you will continue to get the latest information about settings based on user experience as well as recommendations for applications in the future as well.

You can access numerous application videos which offer additional information on handling, patient positioning, and

settings. Learn about the medical specialties which are currently being researched and browse baseline studies on ESWT. Our webinars with experienced users will give you a fresh impetus for your daily work. Likewise, you can read up on additional background information about applications and find more details online about the technology from our most recent brochures.



You will additionally be supported by our ESWT App for your iPad. You can get a quick overview of the most common parameter settings for numerous standard indications.

We want you to have access to all application support tools at all times – everywhere and anytime. We want you to be able to share in our collective knowledge and our experience of applying shockwaves.

Online and always up-to-date.

# PiezoWave<sup>2IS</sup>

Excellent performance based on advanced technology

## Advantages at a glance:

- Wide range of intensity settings (up to 0.822 mJ/mm<sup>2</sup> with the F10G4 therapy source)
- Finely adjustable penetration depths using gel pads
- Penetration depth of up to 100 mm with the F10G10 therapy source (focal center)
- Low maintenance, reliable and long-lived – guaranteed!
- Plug&Play – therapy source recognition
- Piezoelectric direct focusing technology – low-loss, painless coupling
- Intensity can be freely regulated, with almost no impact on focal size
- The right therapy source for every indication
- ELvation HUB and the ESWT App – a user concept that will support you in your daily work



Follow us on:



ESWT/ESWL Team of



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