RICHARD WOLF

ELvation® think in value

MyACT

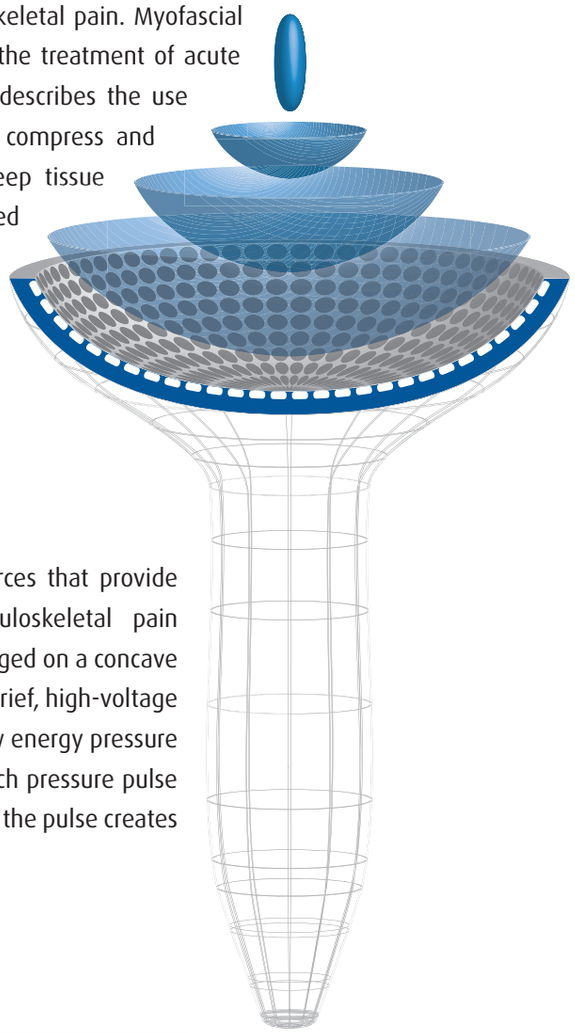
Myofascial Acoustic Compression Therapy

PiezoWave²

MyACT™

Myofascial Acoustic Compression Therapy

A sound approach to treating acute and chronic musculoskeletal pain. Myofascial Acoustic Compression Therapy (MyACT) is widely used in the treatment of acute and chronic pain in muscles, tendons and joints. MyACT describes the use of acoustic waves to target tissue at varying depths to compress and manipulate tissue resulting in a focused and precise deep tissue massage. The results of the mechanical stimulus delivered by MyACT can lead to increased circulation and pain relief – key components in the healing process.



Richard Wolf has specifically designed piezo therapy sources that provide low energy/low pressure levels for myofascial and musculoskeletal pain treatment. Piezo-ceramic elements are geometrically arranged on a concave surface so that when they are excited simultaneously by a brief, high-voltage pulse, they expand by a few micrometers to generate a low energy pressure pulse. The piezo elements are precisely aligned so that each pressure pulse generated focuses in a specific area. This precise focusing of the pulse creates an acoustic compression event at the point of focus.

For targeted, non-invasive pain relief

Mechanical stimuli affect almost all cellular functions of living tissue such as growth, cell differentiation, cell migration, protein synthesis, physiological apoptosis and tissue necrosis. The acoustic waves generated by the PiezoWave2 converge at a point deep within the soft tissue to produce an intense, extremely short duration compression burst. The focused acoustic compression force is translated to the surrounding tissue like an extremely precise deep tissue massage. The precise targeting of tissue with Acoustic Compression provides healthcare professionals with a tool to positively influence cellular form and function, which can result in pain relief and improved circulation.*[1,2,3]

The PiezoWave^2

Tablet PC
not included

MyACT- Focusing in on pain

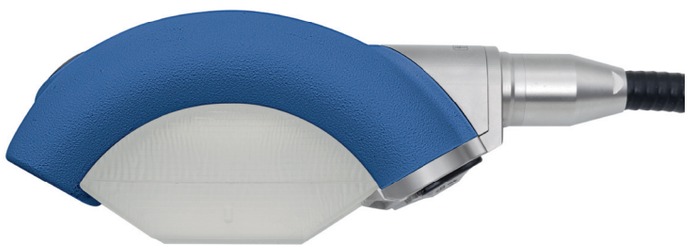
- A safe, adjunctive approach to treating acute and chronic musculoskeletal pain
- MyACT improves range of motion making adjustment easier
- Improved circulation alleviates pain and muscle tightness, and promotes healing
- MyACT helps your patients return to more normal daily activities
- Patient satisfaction influences referrals and your reputation as a provider of effective therapies

MyACT™

Pin-pointed and linear energy delivery

The PiezoWave2 MyACT system provides you with the choice of two piezo therapy sources. The Focused Therapy Source for pin-point, focused treatments and the Linear Therapy Source for larger, more superficial treatments.

Focused Therapy Source



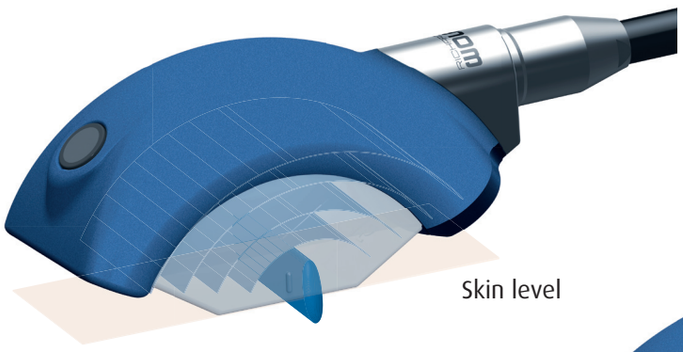
Linear Therapy Source

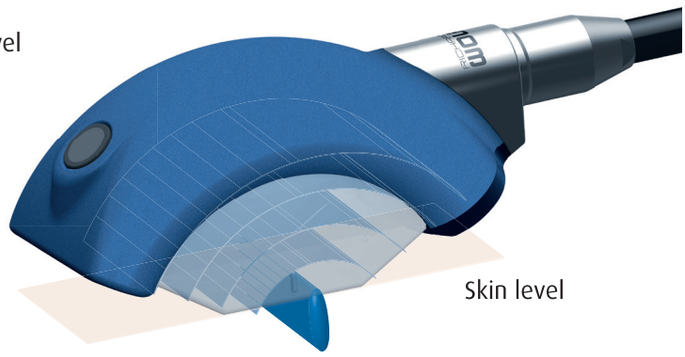
Advanced Technology that is easy to use

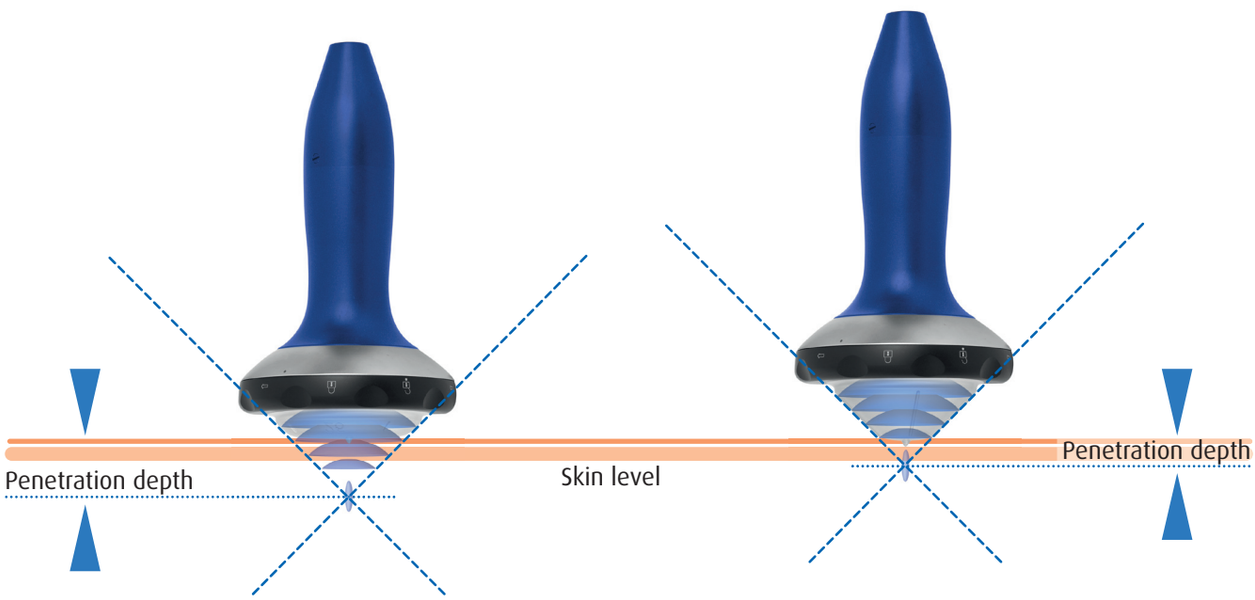
- Acoustic Compression Therapy is delivered via the hand-held Therapy Source
- MyACT utilizes an intense, short duration acoustic energy wave
- The array of acoustic energy generated by the Therapy Source passes through soft tissue and becomes concentrated (focused) precisely at the desired tissue depth
- Multiple applicator (gel) pads, can be interchanged to adjust the focal point depth of the acoustic wave to the targeted tissue

Unparalleled treatment control

- Quick and easy control over energy delivery, treatment depth and treatment location
- MyACT is focused deep in tissue to deliver the greatest amount of energy at the desired focal point
- MyACT's focal point is adjustable to different depth levels in 5mm steps
- MyACT flares the patient's familiar pain to confirm the area that requires treatment
- Targeting MyACT at varying depths to compress and manipulate tissue results in a focused and precise deep tissue massage
- Myofascial Acoustic Compression Therapy's influence as a pin-pointed delivery of mechanical stimulus can result in biochemical events that lead to increased circulation and pain relief – key components in the healing process







Penetration depth

The piezo MyACT technology uses interchangeable gel pads which contact the patient to ensure that the acoustic pulse penetrates precisely to the desired depth with as little scattering as possible. These gel pads are used as spacers and change the penetration depth in increments of 5 mm. They accomplish this by drawing the therapy source's static focal area incrementally superficial or deep respectively. Penetration depths of between 0.5mm and 3 cm are possible, depending on the therapy source.

MyACT treatment

Easy to understand and simple to operate

The PiezoWave2 ™ has a simple user interface and foot pedal controls that enhance its daily use. The control unit recognizes which therapy source is plugged in to provide the appropriate energy spectrum during use. Individual settings can be adjusted with just a few keystrokes and via the treatment control foot pedals. The PiezoWave 2 MyACT is designed with an IPad Holder offering you the possibility to attach your IPad to display patient information, treatment charts or downloaded treatment Apps.

Patient guided pain relief

MyACT helps define where to treat – a unique feature not offered by other treatment modalities.
Diagnosis of referred pain and the recognition of the originating pain triggering points can be accomplished using MyACT. Abnormal musculoskeletal tissue can be “flared” with focused MyACT in order to define the areas that require treatment. This process of defining the origins of pain is guided by the patient through verbal feedback to the healthcare professional providing the treatment.

What patients can expect...

...during your Acoustic Compression

1. As the clinician identifies the treatment site(s), these will be charted for future treatments.

2. The clinician will then apply a thin coat of coupling gel. This gel helps to translate the acoustic sound waves generated by the therapy head to the body.

3. The clinician will start the treatment at a very low output setting and increase the power to a level that is tolerated by the patient and allows for definition of the treatment site. The output level and acoustic wave frequency rate may vary from location to location based on the depth and type of tissue being treated.

4. As the clinician moves the therapy source around the treatment area, the patient will feel a deep, dull ache that is familiar to the patient as being like the pain their condition produces. The clinician will ask the patient to report when he or she feels the ache and will adjust the output of the device to the appropriate level tolerated by the patient. The clinician will ask the patient to confirm that the therapy source is still creating the ache and may adjust the location of the treatment based on the patient's feedback. If at anytime the treatment becomes uncomfortable, the patient is instructed to mention this to the clinician and the output is adjusted to a comfortable level.

5. After the treatment is completed, the coupling gel will be removed and the patient can return to their normal activities. The patient may experience some minor aches or discomfort after treatment. It is not unusual for patients to notice flushed or reddened skin around the treatment site.

- A typical MyACT treatment takes between 10 and 20 minutes
- Normally, 1-2 treatments per week are performed
- A total of 3-5 treatments may be necessary before lasting improvement is achieved
- With acute pain, a single session is often successful

MyACT treats pain resulting from

- Myofascial dysfunction
- Tendinopathy
- Trigger Points
- Repetitive stress injuries
- Enthesopathy
- Soft Tissue Strains

MyACT

Puts cells into motion

- Years of research have shown that mechanical forces, including tension and compression, greatly influence various cellular functions such as gene expression, cell proliferation and differentiation, and secretion of matrix proteins.[1,2,3]
- Cells also use mechanotransduction mechanisms to convert mechanical signals into a cascade of cellular and molecular events.[1,2,3]
- Tenocytes in tendons, fibroblasts in ligaments and skin, osteocytes in bone, chondrocytes in articular cartilage, and endothelial cells in blood vessels are mechano-sensitive and respond to mechanical forces.[1,2,3]
- Acoustic Compression Therapy's influence as a pin-pointed delivery of mechanical stimulus can result biochemical events that lead to increased circulation and pain relief – key components in the healing process.[1,2,3]

1. Ingber D E. Mechanobiology and diseases of mechanotransduction. Annals of Medicine 2003; 35: 1 – 14
2. Wang JHC, Li B. Mechanics rules cell biology. Sports Medicine, Arthroscopy, Rehabilitation, Therapy & Technology 2010, 2:16
3. Neuland H G, Duchstein H J. Manifestation Pattern of the Extracorporeal Shock Wave Therapy using mechanotransduction Orthopädische Praxis 2006; 42, 4

ESWT/ESWL Team

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