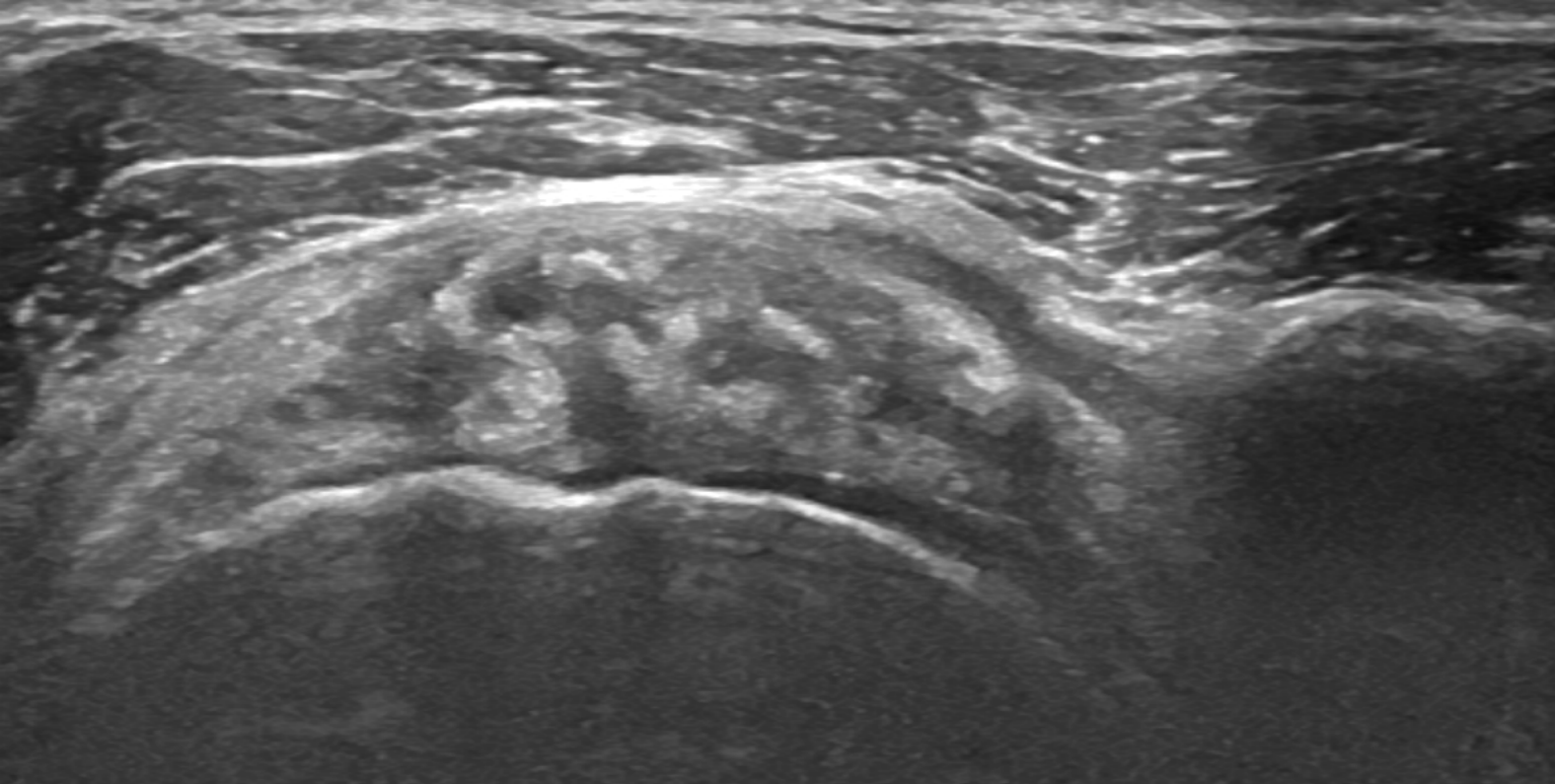


Acure Electrolysis 8000





“The treatment with ultrasound-guided electrolysis has been positioned internationally as a first-rate tool to treat soft tissue injuries such as tendon, ligaments, fascia and muscle”



Ultrasound-guided galvanic electrolysis therapy

Dr. Ferran Abat (MD,PhD)
Sports Orthopaedic
Specialist in tendon and muscle injuries

Triggering biological processes that generate new tissue

Ultrasound-guided galvanic electrolysis (USGET) is a technique most commonly used on chronically affected tissue.

A galvanic current flows through an acupuncture needle producing an inflammatory reaction in the tissue. The inflammatory reaction will trigger a host of biological processes in the body. These will ultimately start the generation of new immature collagen fibres. The fibres become mature by means of eccentric stimulus.

Applications of USGET

The technique shows good results on tendons in the chronic phase^{1,2}, and may be used for injuries, such as long-standing muscle injury³ and treatment of myofascial pain syndrome and trigger points⁴.

The application of USGET should be limited to trained professionals and under ultrasound guidance*

USGET and anti-inflammatory techniques

The aim of the inflammatory process is to bring the patient's injury from a chronic to an acute phase. The use of anti-inflammatory techniques is not recommended during the first 72 hrs after treatment, as they would limit the effectiveness of the treatment in the initial phase.

* Abat F, et al. Current trends in tendinopathy: consensus of the ESSKA basic science committee. Part II: treatment options. *J Exp Orthop*. 2018 Sep 24;5(1):38

Ultrasound-guided Galvanic Electrolysis Therapy's place in the treatment of tendinopathies

In the treatment of tendinopathies, therapeutic options have been progressively moving toward restoring natural tendon biology⁵.

Eccentric exercises assist in the recovery of the tendon's biomechanical qualities, however prove to be insufficient if the tissue is significantly degenerated^{5 6 7}.

At this point, it is important to use a therapy form that can cause an inflammation bringing the degenerated tissue from a chronic to an acute phase.

USGET causes a controlled local inflammatory process in the target tissue. This allows for phagocytosis and the subsequent regeneration of the affected tissue^{8 9}.

The results obtained with the combination of USGET and eccentric exercise have reported better outcomes than conventional electro-physiotherapy techniques¹⁰.

Application of Ultrasound-guided Galvanic Electrolysis Therapy on soft tissue problems

In their prospective randomised trial, Fernández Rodríguez et al¹² show that USGET may be used successfully in the treatment of plantar fasciitis¹³.

The treatment was safe and effective for chronic plantar heel pain in the short term (0 - 3 months), and was even better at the intermediate term (3 – 6 months), achieving better results than placebo in pain relief and improvement in functional disability.

Myofascial trigger points and Ultrasound-guided Galvanic Electrolysis Therapy

A myofascial trigger point (MTrP) is a hyperirritable spot in skeletal muscle that is associated with a hypersensitive palpable nodule in a taut band.

The spot is tender when pressed and can give rise to characteristic referred pain, motor dysfunction, and autonomic phenomena¹¹.

A needling treatment proposed for treatment of myofascial pain syndrome is dry needling combined with electrical current otherwise known as percutaneous electrolysis therapy (USGET)¹².

Early clinical research shows that percutaneous electrolysis (USGET) could be a promising alternative for the treatment of MTrPs^{13 14 15}.

Other applications for Ultrasound-guided Galvanic Electrolysis Therapy

USGET may still be seen as an emerging treatment method. Some pathologies treated are not yet supported by clear clinical evidence, these are however, showing encouraging results.

Muscle:

- Quadriceps
- Hamstrings
- Neck and shoulder muscles
- Calf muscles

Bursa:

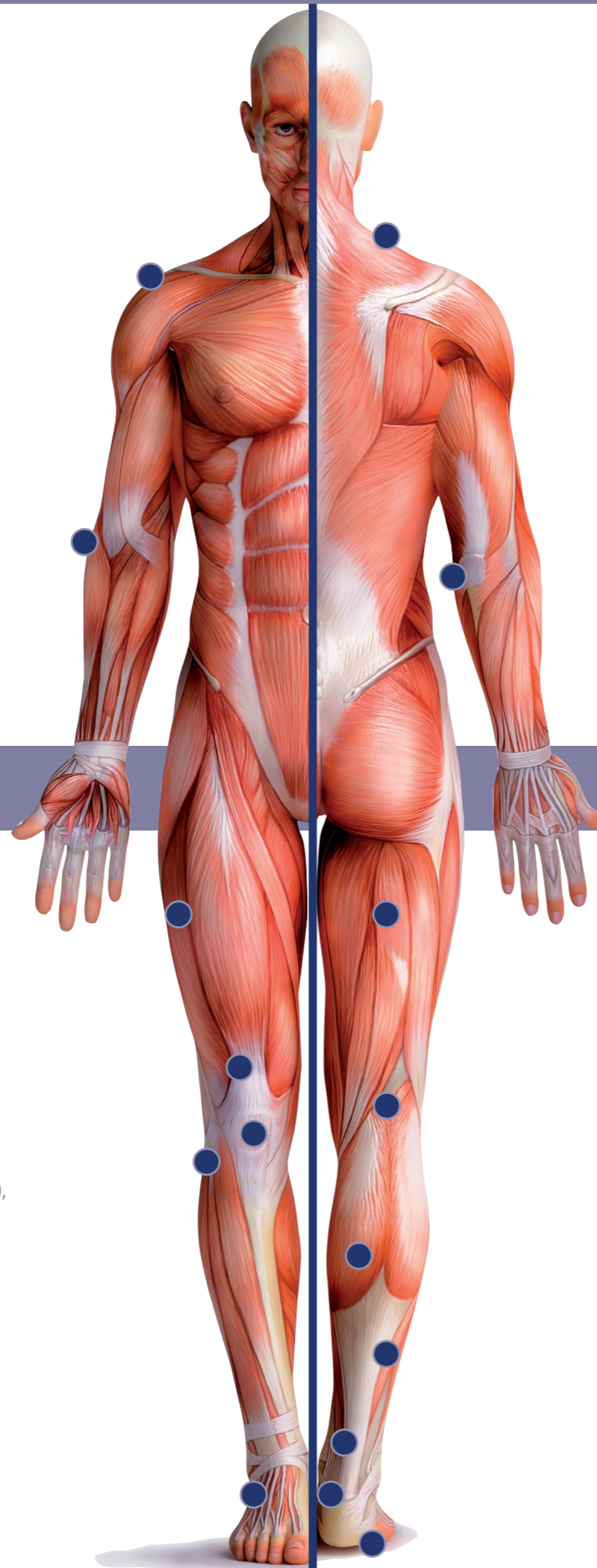
- Shoulder bursitis
- Retrocalcaneal bursitis

Ligaments:

- Lateral knee ligament
- Lateral foot/ ankle ligaments

Other:

- Baker's cyst
- Haglund's syndrome
- Plantar fasciitis



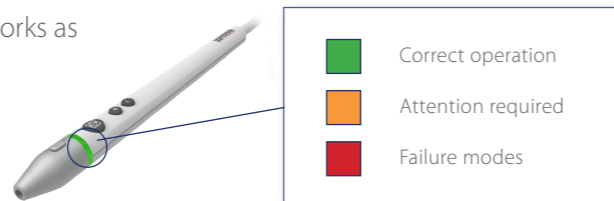
Acure Electrolysis 8000



The Acure Electrolysis 8000 is a high quality and high intensity electrolysis device

The intuitive touchscreen makes working with the Acure Electrolysis 8000 easy and uncomplicated. The handpiece, with its ergonomic design, gives full control during treatment.

- High maximum intensity of 8 mA for more effective and time-efficient electrolysis with dedicated applications for Ultrasound-guided Galvanic Electrolysis Therapy and dry needling
- Handpiece with ingenious and safe needle grip mechanism, works as wired remote control to start/stop therapy and adjust desired intensity directly
- Mains and battery power operation with smart battery management system allowing maximum life of the re-chargeable li-ion battery
- Body area menu allows treatment selection based on anatomical locations and to create own protocols



Galvanic Current:

General

Current waveform:
Output stage type:
Channel:
Polarity:
Limitation:

Direct continuous current (galvanic)
Constant current source
1 Channel for both galvanic electrolysis and dry needling
Acupuncture needle is the negative pole
150% of the set value at 10% of the maximum range decreasing to 110% of this maximum
By a load of 500-1000 Ω the accuracy of the output is ± 10% of the set value

Accuracy:

μA and mA level in standard mode

Range: 0 <-> 2500 μA
Step size: 50 - 100 - 250 - 500 μA
Treatment time: 00:00 <-> 30:00 min

0 <-> 8 mA
0,5 mA - 1 mA
00:00 <-> 30:00 min

μA and mA level in advanced mode

Extra specific parameters
Ramp curve time: 2 - 4 - 8 seconds
Pre-set intensity: 50 <-> 2500 μA

2 - 4 - 8 seconds
0,5 mA <-> 8 mA

Fully supported with,
guided safety precautions:

Monitoring the closed patient circuit (using an auxiliary current)
Warning level for the administered charge Q

TP Trigger points (dry needling)

Range: 0 <-> 1000 μA
Step size: 500 μA
Treatment time: 00:00 <-> 30:00 min

Technical device specifications:

Languages	7
Mains voltage	100-240 V, 50-60 Hz
Current rating	0.6 A - 0.3 A
Maximum power rating	24 W
Power supply voltage	12 VDC
Maximum current rating	2 A
Power supply weight	~ 0.17 kg
Handpiece (wxdxh)	175 x 16 x 16 mm
Handpiece weight	~ 0.060 kg
Unit (wxdxh)	210 x 160 x 90 mm
Unit weight	~ 0.85 kg
Weight incl. accessories	~ 1.00 kg
Operation mode	suited for continuous operation
Electrical safety protection	Class II
Applied parts	Type BF
MDD Classification	Ila
Conformity	Directive MDD 93/42/ECC
Notified Body	CE0344

Standard accessories

- 370 310 Acure electrolysis 8000
- 370 601 Acure handpiece
- 369 018 Acure handpiece holder
- 329 967 1-Pole patient cable; 4mm M to 2 mm F
- 340 703 Rubber electrode brace, size 6cm x 8cm ; 2 mm
- 340 681 Sponge for electrode brace, size 6cm x 8cm (2pcs)
- 108 935 Fixation strap, elastic, size 60 cm
- 369 148 Acure circuit test adaptor
- 369 006 External medical grade power supply
- 369 010 Set of power adaptor sockets for other countries
- 369 014 Rechargeable battery pack 7,4V 5200mAh (li-ion)

Optional accessories

- 340 714 Rubber electrode brace, size 8cm x 12cm ; 2 mm
- 340 692 Sponge for electrode brace, size 8cm x 12cm (2pcs)
- 108 934 Fixation strap, elastic, size 30 cm
- 108 936 Fixation strap, elastic, size 120 cm
- 320 804 Gymna mobile

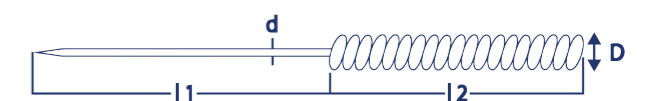
Manuals

- 370 810 Acure quick start manual
- 370 822 Acure activation guide
- 370 814 Acure safety instructions, multi language
- 370 826 Acure instructions for use in English
- 370 818 USB-stick with instructions for use, multi language

Acupuncture needle:

- Purchase acupuncture needles from a local supplier strictly complying with the applicable local legislation
- Only use high quality, single use, sterilized, acupuncture needles
- Needles must have medical CE approval, including Notified Body number
- Needle packaging must state percutaneous electrolysis
- Needle is made of single thread uncoated stainless steel with a braided steel handle without a head

- Dimensions:
 - o Needle diameter (d) 0.30mm <-> 0.35mm
 - o Handle outer diameter (D) 1.25mm <-> 1.45mm
 - o Needle body lengths (l1) 20mm <-> 100mm
 - o Handle length(l2) 25mm <-> 30mm





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