

Pain Relief

What is TENS?

TENS stands for Transcutaneous Electrical Nerve Stimulation. TENS stimulates your body's own natural defences against pain, namely the release of endorphins. TENS is entirely safe and has been used successfully by thousands of pain sufferers.

How does TENS work?

TENS sends a gentle stimulation through the skin which works in TWO ways: Pain Gate and Endorphin Release.

Pain Gate: TENS stimulates the sensory nerves, which carry touch and temperature signals to the brain. These nerves go to the same connections in the spine as the nerves carrying pain. A strong sensory signal will block the pain signal travelling up the spine to the brain. This is known as closing the "Pain Gate" and takes effect quite quickly after the unit is switched on. When the pain gate is open, pain messages are sent to the brain, and we feel pain. When the pain gate is closed, these pain messages are blocked, and pain is not felt. Scientifically, the pain gate works by releasing chemicals in the synapse at spinal level that inhibits transmission of pain signal.

Evidence suggests that TENS produces pain relief in a similar way to 'rubbing the pain better'. The pain gate can be closed by activation of mechanoreceptors through 'rubbing the skin'.

Endorphin Release: At low frequency settings, and slightly stronger outputs, TENS drives the motor nerves to produce a small repetitive muscle contraction. This is seen by the brain as exercise, and this promotes the release of endorphins - your body's own natural pain killer. The relief builds up and normally takes about 40 minutes to reach a maximum level which can last for hours after the machine is switched off.

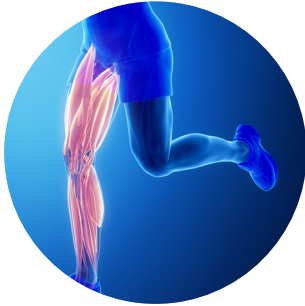
TENS Applications

TENS is effective for pain relief from a very wide range of causes. TENS machines can be used to help reduce pain from problems in muscles, joints as well as nerves. It can also be used for people with musculoskeletal pain such as long-term (chronic) back pain or knee joint arthritis. TENS devices are also often used for pain relief during childbirth (see maternity TENS), particularly in the early stages of labour, whilst a pregnant woman remains at home. Other uses include migraine headaches, period pain (see Ova+) and sports injuries. Additionally, low frequency (<10 Hz) programmes can be used to achieve similar effects to acupuncture, by placing the electrode pads on trigger points. TENS machines can be used alone or be combined with other treatments for pain relief. The effect of TENS may wear off after a few hours of continued use, this is called "accommodation". If this happens, take a break for an hour or so before trying again.

What is Ultrasound? Therapeutic ultrasound is a form of mechanical sound waves that pass through the tissues to produce heat in the tissue. The normal human sound range is from 16 Hz to something approaching 20,000 Hz (in children and young adults). Beyond this upper limit, the mechanical vibration is known as ULTRASOUND. The frequencies used in therapy are typically between 1.0* and 3.0 MHz (1MHz = 1 million cycles per second). *1.0 MHz penetrates deeper into the tissue than 3.0 MHz.

Ultrasound is applied using a round-headed wand that is put in direct contact with the patient's skin. Ultrasound gel must be used on all surfaces of the head in order to allow the transmission of the ultrasonic waves which cannot travel through air.

How does Ultrasound work? The ultrasound waves are generated by a piezoelectric effect caused by the vibration of crystals within the head of the device. Sound waves are longitudinal waves consisting of areas of compression and rarefaction. The ultrasound waves that pass through the skin cause a vibration of the local soft tissues. This vibration or cavitation can cause a deep heating locally, however, usually no sensation of heat will be felt by the patient. In situations where a heating effect is not desirable, such as a fresh injury with acute inflammation, the ultrasound can be pulsed rather than continuously transmitted.



Knee, Elbow & Wrist Pain



Sciatica and Hip Pain



Upper & Lower Back, Neck

Therapeutic ultrasound has been shown to increase: Healing rates, tissue relaxation, tissue healing, local blood flow, scar tissue breakdown.

Ultrasound Applications: One of the therapeutic effects for which ultrasound has been used is in relation to tissue healing. It is suggested that the application of ultrasound to injured tissues will, amongst other things, enhance the rate of healing and the quality of the repair. Through the increase in local blood flow, ultrasound can be used to help reduce local swelling, chronic inflammation and according to some studies, promote bone fracture healing. A typical ultrasound treatment will take from 3 to 5 minutes. In cases where scar tissue breakdown is the goal, this treatment time can be much longer. During the treatment, the head of the ultrasound probe is kept in constant motion, to ensure that the patient feels no discomfort at all. Some conditions treated with ultrasound include tendinitis (tendinopathy), non-acute joint swelling and muscle spasm.

While receiving an ultrasound treatment, a slight warming sensation or tingling around the area being treated can be felt. If the ultrasound is used in a combination with electrotherapy, TENS reinforces the user feedback and sensation. A combination therapy involves the simultaneous application of ultrasound with an electrical stimulation therapy (TENS). This combination appears to give beneficial effects of both modalities. Application of ultrasound undoubtedly causes tissue healing, TENS on the other hand, helps in the pain modulation. In addition, the simultaneous application of ultrasound with TENS minimises the accommodation phenomenon normally associated with electrical stimulation of the peripheral nerves.

Mynd

Pain Relief



DIMENSIONS _____ 120 x 38 x 11 mm
WEIGHT _____ 15 grams
AMPLITUDE _____ 20 mA (max)
FREQUENCY _____ 55 - 110 (Hz)
PULSE WIDTH _____ 200 μ s
WAVEFORM _____ Alternated Mono-phasic Rectangular
POWER SUPPLY _____ Li-ion, 110mAh, 3.7 V
PRODUCT CODE _____ K-MYND

Overview

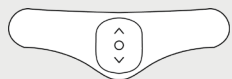
Mynd is a clinically-proven electrotherapy device to help treat and prevent frequent episodic and chronic migraines. The light-weight, wearable device has two programmes: Programme 1 – designed to treat migraines providing soothing pain relief. Programme 2 – Regular use of this programme helps to reduce the frequency of migraine attacks.



Features

- Mynd offers two adjustable TENS programmes, with 40 levels of intensity.
- Comfortable and effective stimulation.
- Includes a rechargeable and long-life battery along with a micro-USB cable.
- Dedicated Mynd gel pads for multiple use.
- 3 intensity LEDs give instant indication of selected intensity level.
- Audio feedback indicates increase of intensity, end of session and maximum and minimum intensity settings.

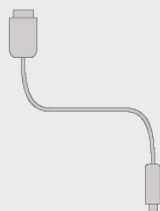
Kit Contents



x1 Device



x3 Gel Pads



USB Cable



Travel Case



Mirror

Perfect TENS

Pain Relief

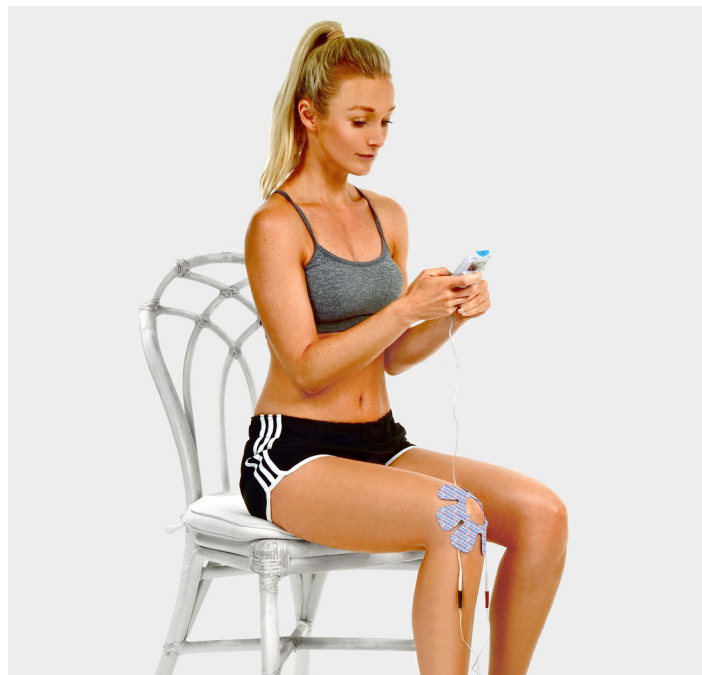


DIMENSIONS _____ 120 x 60 x 20 mm
WEIGHT _____ 120 grams
AMPLITUDE _____ 60 mA (max)
FREQUENCY _____ 2 - 150 (Hz)
PULSE WIDTH _____ 50 - 250 μ s
WAVEFORM _____ Symmetrical Bi-polar Rectangular
POWER SUPPLY _____ x2 AA
PRODUCT CODE _____ K-PERFECT

Overview

This unit is specifically designed to provide safe and effective pain relief in the comfort of your own home. It can help manage the pain from a wide range of conditions.

Chronic pain: back pain, arthritis, rheumatic pain, lumbago, hip pain, osteoarthritic pain in the knee and sciatica central pain. **Musculoskeletal pain:** fibromyalgia, falls, sprains, direct blows to muscles and auto accidents. **Acute pain:** Dental and facial pain, neck pain, postoperative pain, migraine and neuralgias.



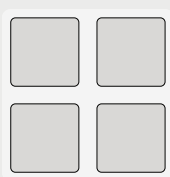
Features

- 2 independent channels with 4 electrode pads to treat 2 areas at the same time.
- 1 manual programme that can be defined to experiment and save preferred settings.
- 8 preset TENS programmes including: burst, constant, modulation modes as well as HAN Stimulation.
- Comfortable stimulation with 60 small steps of intensity.
- Memory functions saving the number of uses and time of usage.
- Programme retention (automatically starts in the last programme that was used).

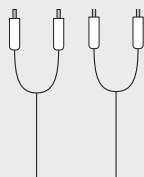
Kit Contents



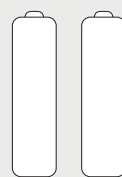
x1 Device



x4 Electrodes



x2 Lead Wires



x2 AA Batteries

TENS One

Pain Relief



DIMENSIONS	100 x 67 x 32 mm
WEIGHT	140 grams
AMPLITUDE	80 mA (max)
FREQUENCY	1 - 150 (Hz)
PULSE WIDTH	50 - 250 μ s
WAVEFORM	Asymmetrical
POWER SUPPLY	x2 AA
PRODUCT CODE	K-TENSONE

Overview

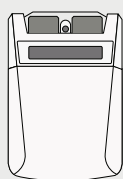
An accurate and versatile TENS unit that is easy to use, with simple settings and rotating strength controls. It can help manage the pain from a wide range of conditions. **Chronic pain:** back pain, arthritis, rheumatic pain, lumbago, hip pain, osteoarthritic pain in the knee and sciatica central pain. **Musculoskeletal pain:** fibromyalgia, falls, sprains, direct blows to muscles and auto accidents. **Acute pain:** Dental and facial pain, neck pain, postoperative pain and neuralgias.



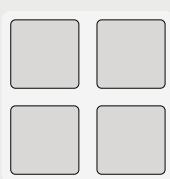
Features

- 2 independent channels with 4 electrode pads to treat 2 areas at the same time.
- Manual settings with 3 modes including N (Normal/Constant), B (Burst) and M (Modulation) modes.
- Comfortable and effective stimulation with 20 steps of intensity.
- Simple & intuitive multi-turn rotary controls to reduce the risk of sudden changes.
- Open circuit cut-out to avoid sudden changes, the unit will reset the intensity to zero for 3 seconds and then ramp up.

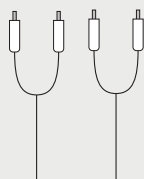
Kit Contents



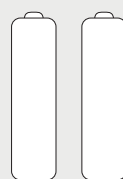
x1 Device



x4 Electrodes



x2 Lead Wires



x2 AA Batteries

Ova+

Pain Relief



DIMENSIONS _____ 65 x 38 x 10 mm

WEIGHT _____ 15 grams

AMPLITUDE _____ 52 mA (max)

FREQUENCY _____ 10 - 110 (Hz)

PULSE WIDTH _____ 50 - 200 μ s

WAVEFORM _____ Symmetrical Bi-polar Rectangular

POWER SUPPLY _____ Li-ion 3.7 V

PRODUCT CODE _____ K-OVAP

Overview

A non-invasive TENS machine designed and clinically proven to treat period pain and to provide completely natural form of relief from conditions such as:

- Primary dysmenorrhea
- Menstrual cramps
- Endometriosis
- Fibroids & pelvic inflammatory disease
- Over-active bladder and enuresis



Features

- Single channel, mono plug connection with 2 large electrode pads.
- 4 preset TENS programmes including constant, burst and endorphin release.
- Additional 10 Hz soothing programme to treat symptoms of over-active bladder and refractory enuresis.
- Lightweight and portable.
- Comfortable stimulation with 40 small steps of intensity.
- Built-in Li-ion rechargeable battery via micro USB.

Kit Contents



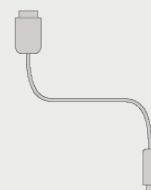
x1 Device



x2 Electrodes



x1 Lead Wire



USB Charging Cable

Sonic Stim+

Pain Relief



DIMENSIONS _____ 209 x 53 x 89 mm

WEIGHT _____ 235 grams

AMPLITUDE _____ TENS: 30 mA (max)

FREQUENCY _____ TENS: 1 - 150 / Ultrasound: 1.0 (Hz)

INTENSITY (W/cm²) _____ Ultrasound: 1.25 (at 50% duty cycle)

WAVEFORM _____ (TENS) Symmetrical

POWER SUPPLY _____ Mains

PRODUCT CODE _____ K-SSPLUS

Overview

Combines two different forms of pain therapy: TENS and ultrasound. **TENS** relieves pain by helping the body to release natural painkillers and by blocking pain signals from reaching the brain; while ultrasound provides pain relief and trigger point therapy. **Ultrasound therapy:** provides pain relief, reduction of muscle spasm; trigger point therapy. TENS therapy: offers relief from chronic intractable pain, post-traumatic acute pain, post-surgical acute pain.



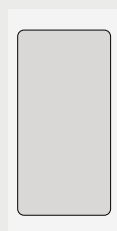
Features

- Two treatment programmes; Ultrasound Therapy and Combination Therapy.
- Adjustable ultrasound intensity (Low, Medium or High) Adjustable treatment time (5, 10 or 18 mins).
- Adjustable stimulation intensity.
- Load detection ensures device only operates when good skin contact is made.
- Temperature protection prevents the treatment head from overheating.

Kit Contents



x1 Device



x1 Electrode



x1 Lead Wire



x1 Gel



x1 Plug

