

MECHANISMS OF TENS



WHAT IS IT?

A small battery operated device which has leads attached to electrodes. It creates a mild electrical current into the area of the body the electrodes are placed which will create a small tingling feeling.

WHY?

It is an electrical stimulation which helps pain relief within the body without the use of medication as via stimulating the body's own natural pain suppression system. It can be easily applied by patients/carers in the comfort of their own homes and is an affordable home treatment.

HOW DOES IT WORK?

It works by transmitting an electrical impulse that feel like a small tingling sensation.

These impulses act on the pain signal nerves to reduce the pain stimulus so you feel less pain.

WHAT IS IT FOR?

TENS may help to reduce any pain and/or muscle spasms caused by a wide range of conditions both Chronic or Acute. Such as :

Arthritis, Back Pain, Knee Pain, Post-operative Rehabilitation and Sports Injuries.

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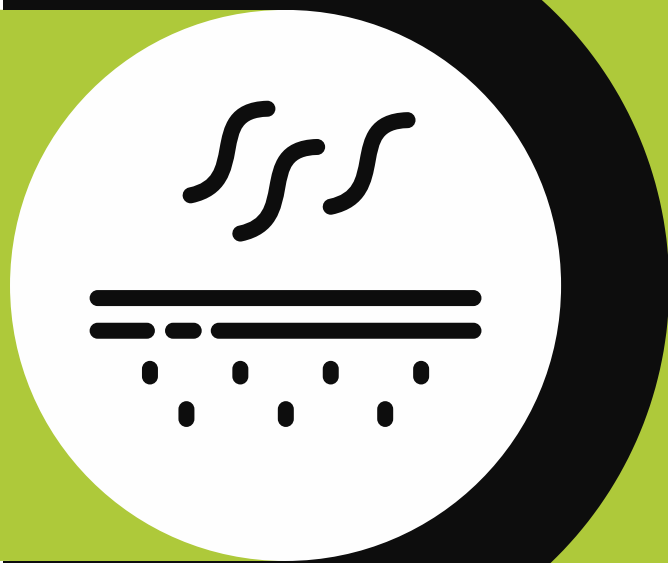
Students involved with the development
Alex Broad (Keele) & James Hawthorne
(Winchester), PEA1 & P1 June 2024

RISKS OF TENS



DISCOMFORT

The current from the device can stimulate the nerves. From this a sensation of tingling or prickling might be felt. This is normal but in more sensitive areas may not be tolerated. The sensation felt should be 'STRONG but COMFORTABLE'.



MUSCLE IRRITATION

If the electrode pads are too close to each other this can potentially cause muscle soreness or fatigue by activation of muscle fibres.



ELECTRIC SHOCK

Should the electrodes not have a good connection to the skin. The electrical current can jump from the electrode to the body causing a shock. Make sure the area is free of excessive hair or oil.



ALERGIES TO GEL

If allergic to gel based electrodes this can cause irritation to the skin. Discuss this with your therapist prior to treatment

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BENEFITS OF TENS



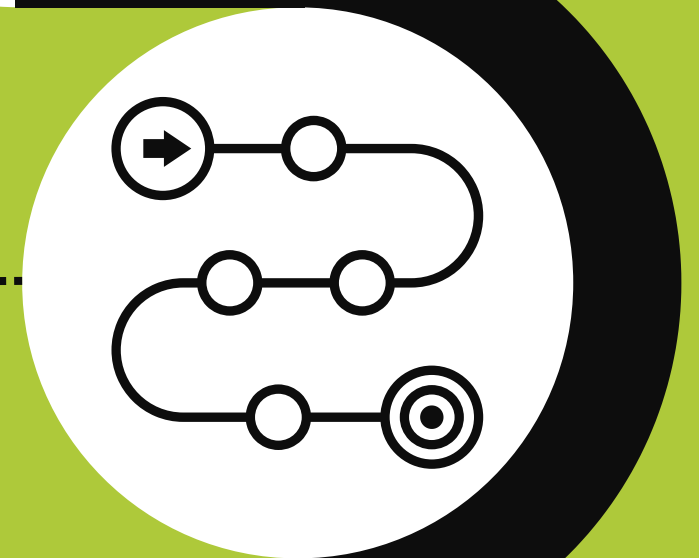
REDUCES PAIN

TENS works by activating the body's own natural pain relieving mechanisms. Nullifying the pain stimulus you feel following an injury or bout of pain.



IMPROVES CIRCULATION

It has been seen to improve circulation as the electrical current can generate muscle activity thus pumping blood and fluid around the body. Also if you are in less pain and moving better you will have better circulation too!



PROMOTES 'FEEL - GOOD' FACTOR

Due to reduction in pain there is a chance it could indirectly reduce stress and anxiety thus contributing to your overall well being



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