

# Transcutaneous Electrical Nerve Stimulation (TENS) therapy for Chronic Pain Management

## Introduction

### What is TENS Therapy?

TENS therapy (Transcutaneous Electrical Nerve Stimulation) is the application of electrical current through the skin for pain relieving effect.

A TENS machine is a small portable battery operated machine consisting of 3 main parts:

1. Control box with battery
2. Lead wires
3. Electrodes (electric pads)

### How does a TENS machine work?

Usually, pain is a useful warning symptom that tells us when something is wrong. If we hurt ourselves, pain forces us to rest which then allows healing to take place.

The nerves around damaged tissue send pain messages to receptors in the spinal cord. These messages are then switched to other nerves and carried on to the brain. The brain interprets the message and pain is felt.

"Chronic" pain is different because it serves no useful purpose. Unfortunately, nerves continue to send pain messages long after healing has taken place or without any history of injury at all.

The TENS machine is a small portable device that is attached to the painful area by self-adhesive pads called electrodes. Once switched on it produces electrical impulses which stimulate the nerves under the skin. The TENS machine can work in two separate ways: by blocking pain messages to the spinal cord and by encouraging the body to produce its own pain killing substances called endorphins.

### Does TENS work for everyone?

Many people using a TENS machine report that it has helped to relieve their pain, however, this varies from person to person. Unfortunately, using TENS will not benefit everyone.

**The prevention of infection is a major priority in all healthcare and everyone has a part to play.**

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

## How do I attach the TENS machine?

Your health care professional will show you where the electrodes can be placed on or around the pain.

1. Insert the battery into the machine and replace the cover. When you switch the machine on, a light should appear next to the controls.
2. Attach the self-adhesive pads to the red and black connectors of the lead. Insert the other end of the lead into the receptor hole of the machine.
3. Place the electrodes on clean, dry skin and avoid any sore or broken areas. Do not put the pads over your heart, eyes and mouth, internally, over folds of skin or at the front of your neck.
4. Turn the dial on and gradually turn up the machine until you start to feel the stimulation. The sensation, often described as a “tingling” feeling should be strong but not uncomfortable. Sometimes, a small degree of muscle twitching is felt.
5. The machine should be used for at least 30 minutes at a time for the pain relieving mechanisms to work. Most people wear the machine for up to two hours at a time, but some use it all day if they have a lot of benefit.
6. When ready, turn off. Return the electrode pads to plastic sheet, put them back into the sealed bag and store in refrigerator.

## Is there anywhere I should not place the electrodes?

The electrodes should not be placed on:

- The front of the neck
- Over the spinal cord
- Near the eyes
- In the mouth or throat

## What will I feel?

The stimulation is felt as tingling impulses, which will get faster or slower when the frequency button is altered, and stronger when the intensity is turned up. The frequency position should be set to the most comfortable position/mode. The intensity should be turned up so that the sensation is strong but not unpleasant. When you get accustomed to the sensation, the intensity may need to be increased.

## Are there any side effects?

TENS is thought to be a safe, non-invasive method of pain relief. Some people experience skin irritation around the electrode sites. Alternative gel pads are available for use on very sensitive skin.

If the pads touch each other, there is the possibility of receiving a very small electric shock.

## When is a TENS machine not suitable to use?

You should not use a TENS machine:

- If you have a pacemaker or a mechanical valve
- If you are pregnant (unless instructed by a midwife or Doctor)
- If you have epilepsy
- If the skin is broken or fragile over the area you wish to place the electrodes.

- Whilst driving or operating machinery
- While sleeping
- In bed

## What do I do if the machine does not work?

First of all check:

- The battery (the indicator light should switch on)
- The leads (for any breaks in the protective covering and that they are securely attached)
- Are you using the correct dial?

You can contact the Pain Management Office on the telephone number overleaf if you require any further help or advice.

If you decide to buy a machine, the on-going costs of batteries and electrodes will be your responsibility.

## Additional information

The information in this leaflet is not intended to replace your doctor's advice. If you require more information or have any questions please contact the CPMS Team on 01902 307999 Ext 5122.

**Pain Management:**  
01902 695122

## English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

## Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

## Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

## Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

## Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

## Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。