Tameside and Glossop Integrated Care NHS Foundation Trust

Using Your TENS Unit

Patient information Leaflet

February 2019

Please make sure that you read all of the information in this leaflet before trying to use the TENS unit.

Transcutaneous Electrical Nerve Stimulation (TENS)

The TENS unit is used to relieve pain by producing a tingling sensation in the skin using self-adhesive electrodes.

Setting Up the Unit

Always ensure that the unit is turned off before you attach the leads and electrodes. Attach the leads to the unit and plug the leads into the electrodes. You can use either 2 or 4 electrodes at a time.

Position of the Electrodes

The electrodes need to be placed around or near the painful area. If possible, try to avoid putting the electrodes on boney areas as these tend to be more uncomfortable. The best positions to try will be personal to you and will be explained by the clinician who teaches you how to use the TENS unit. These can be marked on the body chart on page 6.

Setting the Controls

Set the pulse rate (or frequency) to 80 Hz (pulses per second).
If your unit has extra controls, set the switch to N (normal) and the pulse width to 150 μs (micro seconds).
Turn the unit on, then use the control which increases what you feel until it is a **strong but comfortable** tingling or pulsing sensation. If the tingling or pulsing fades, turn this control up to keep the sensation at a strong but comfortable level.

Length of Treatment Time

You should start by using the unit for 30 minutes, or more, at a time. The affect is likely to be poor if you use it for shorter times.
You may start by using the unit 3 – 4 times a day, but it can be used more or less often.

Removing the Electrodes

Turn the unit off. Carefully remove the electrodes from your skin and unplug the leads. Return the electrodes to the storage sheet.

What Are The Benefits?

TENS is not a cure, but a treatment that can help relieve pain. Pain relief occurs either by reducing the pain signalling in the brain, or by the production of the body's own pain killing chemicals. The actual effect of TENS differs for each person.

Making the Most of Your TENS Unit:

- Try changing the frequency.
- If your unit has a switch, try moving it either to B (burst) or M (modulated) mode. When set on 'B', you may get a muscle twitch as well as a skin sensation. This is not at all harmful.
- Find two or three settings that you find helpful, and swap between them.
- It is safe for you to make any other adjustments to the settings that you find helpful.
- Chose the times of day you use the unit to match times of increased activity or increased pain.
- If you have a problem sleeping, you can use the TENS unit directly before going to bed (but not while you are asleep).
- There is no limit to the number of times you can use the TENS unit in a day.
- There is no limit to the length of time that you can use the TENS unit in one go, but be careful of the condition of the skin under the electrodes.
- You can continue with normal activity (apart from driving or operating machinery) while using TENS. You do not need to lie down or sit.
- You can continue to take your normal medication while you are using the TENS unit. However, if the unit works well, you may find that you are able to reduce some of your pain medication.

Are There Any Risks Involved?

TENS is often a good choice for helping to control pain. However, there are some circumstances where it is not safe.

Do not:

- use TENS while driving or operating machinery.
- use TENS if you have a cardiac pacemaker.
- use TENS if you are pregnant without specific advice from a health-care professional.
- use TENS if you have heart disease or problems with your circulation.
- use TENS if you have epilepsy, except with medical advice.
- use TENS over numb, broken, infected or inflamed skin.
- use TENS while you are sleeping.
- place the electrodes on the front or sides of your neck.
- place the electrodes in your mouth, over your eyes or on any other sensitive area.
- place the electrodes close to drug releasing patches.
- place the electrodes over the site of a recent bruise.
- position the electrodes so that one is on the front, and the other is on the back of your chest
- allow the TENS unit to become wet.
- lend your TENS unit to other people.
- use TENS on children.
- use cream, lotion or talcum powder under the electrodes.
- use TENS if the electrodes produce skin irritation or soreness.

What Are The Alternatives?

There are many other alternatives for pain relief that you could discuss with your doctor or your physiotherapist.

Day To Day Living

Do not drive or operate heavy machinery while using the TENS unit.

If There Is A Problem

Skin irritation or soreness: this may be reduced by placing the electrodes in slightly different positions each time you use them. If you have an allergic reaction, hypoallergenic electrodes are available to purchase. However, if the electrodes continue to make your skin sore, then stop using TENS and ask for advice from the person who supplied you with the machine.

Reduced or no sensation: replace battery.

Broken unit, plug or lead: switch the unit off and contact the person who supplied the machine for advice.

Caffeine can affect how well TENS works, so try reducing the number of caffeine containing drinks you take.

Your nervous system can get used to the sensations produced by the TENS unit. If you feel that it is not working so well, try changing some of the settings (see the section on page 3: ‘Making the Most of Your TENS Unit’).

If you are unable to resolve problems yourself, please contact the person who supplied you with the unit:

Non-Acute Pain Service	Tel: 0161 922 6816
Physiotherapy Department	Tel: 0161 922 6615

Other Useful Information

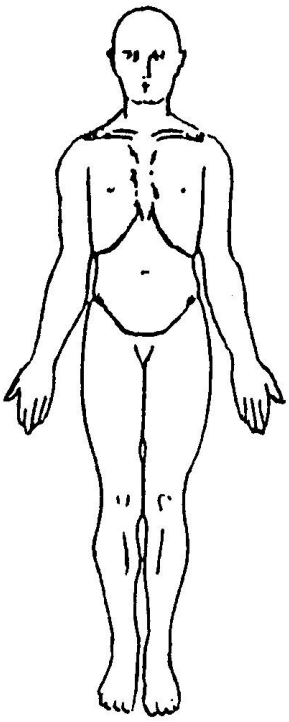
If you purchase your own TENS unit, please read the information that comes with it.

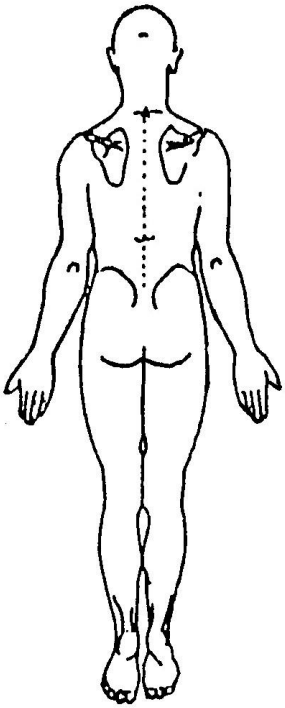
You will find more information about TENS if you follow this NHS link:
www.nhs.uk/conditions/transcutaneous-electrical-nerve-stimulation-tens/

For depth of information about TENS, go to: www.electrotherapy.org

Please ensure that, if you borrow a TENS unit from one of our departments, you return it within the agreed time.
Failure to do this means we may run out of units for ongoing clinics.

Electrode positions





Source of Good Practice

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Modulation between high- and low-frequency transcutaneous electric nerve stimulation delays the development of analgesic tolerance in arthritic rats. (2008) Archives of Physical Medicine and Rehabilitation. DeSantana JM, Santana-Filho VJ, Sluka KA. **89** 754–760.
Transcutaneous electrical nerve stimulation. Jones I, Johnson MI. (2009) Continuing Education in Anaesthesia, Critical Care and Pain **9** 130-135.
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Increasing intensity of TENS prevents analgesic tolerance in rats. Sato KL, Sanada LS, Rakel BA, Sluka KA. (2012) The Journal of Pain **13** 884–890.
Hypoalgesia in response to transcutaneous electrical nerve stimulation (TENS) depends on stimulus intensity. Moran F, *et al* (2012) The Journal of Pain **12** 929-935.
An investigation into the magnitude of the current window and perception of transcutaneous electrical nerve stimulation (TENS) sensation at various frequencies and body sites in healthy human participants. Hughes N, Bennett MI, Johnson MI. (2013) Clinical Journal of Pain **29** 146-153.

If you have any questions you want to ask, you can use this space below to remind you.

If you have a visual impairment this leaflet can be made available in bigger print or on audiotape. If you require either of these options please contact the Patient Information Centre on 0161 922 5332

আপনি যদি এই তথ্য পড়তে বা বুঝতে না পারেন,তাহলে অনুগ্রহ করে এথনিক হেলথ টিমের সাথে টেলিফোনে যোগাযোগ করুন 0161 331 5149/5150 এই নাম্বারে, তখন তারা আপনাকে সাহায্য করতে পারবে।

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Document control information

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