Pain Service

Transcutaneous electrical nerve stimulation (TENS) for pain relief

What is a TENS machine?

This is a small, lightweight, battery operated device which can work by blocking painful sensations through the electrical stimulation of specialised nerve fibres. The device works with two or more adhesive electrode pads that are placed on or around the site of your pain, or on the nerve routes that supply the painful area. The healthcare professional who demonstrates the machine to you will make sure you understand about pad positioning.

How does it work?

It may be effective in the management of pain in three ways:

- Painful messages are carried through nerves to the brain. TENS can work by blocking the painful impulses along the nerve pathways.
- The machine may stimulate the release of the body’s natural pain relieving chemicals (endorphins).
- The machine can help to relax muscles, which may help to ease the pain.

Using the TENS machine

- Always make sure the machine is switched off before applying or removing the electrode pads.
- Make sure the selected skin area is clean and dry, and that the skin is not broken. The healthcare professional will show you where the electrode pad can be placed.
- When the machine is switched on, the electrical stimulation may be felt as small tingling impulses, which will alter as the pulse rate/frequency and pulse width dials are moved.
- TENS should be used on the most comfortable and relaxing dial settings for you. The healthcare professional will explain this to you in detail when the machine is first given to you.

How often should I wear it?

Use the TENS for a minimum of thirty to sixty minutes, increasing to a few hours continuously if you find it helpful. It is safe to use TENS continuously throughout the whole day.
Points to remember

- The TENS machine should not be worn in the bath or shower as this is an electrical device.
- The TENS machine should not be worn whilst driving or operating machinery.
- The TENS machine should not be placed if you have broken, sore or infected skin as this may be made worse.
- Ensure that you check the skin underneath the pads during use as sometimes it can become red and sore. If this happens you will need to move the position of the pads.
- The TENS electrode pads should not be placed on the front of the neck (as this may cause you to feel faint). The TENS electrode pads should not be placed near the eyes or in the mouth as this may cause burns.
- It is not advisable to wear a TENS machine if you have a pacemaker. Please speak to a medical professional if further advice about this is required.
- Do not place pads around your heart as this may affect the rhythm of your heart.
- It is not advisable to sleep with the TENS machine on as you may inadvertently knock the controls.
- It is not advisable to use TENS when pregnant, unless under medical supervision.

Will I be able to move about?

Yes. It is important that you carry on with your normal daily routine.

Should I still take my tablets?

Yes, but if after a few days the pain has been helped by the TENS, you may find you need the tablets less frequently.

The TENS machine is for your personal use only. If you find TENS beneficial the pain service can advise you on how to purchase a machine for ongoing use at home. Additional information and advice from the manufacturers is also available with each machine.
We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

**Other formats:**

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.info@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

**Document history**

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