Transcutaneous Electrical Nerve Stimulation (TENS)

TENS Information for Cheltenham General/ Gloucester Royal/ Tewkesbury/Stroud/ Cirencester/Dilke Hospitals

Introduction

Your pain clinic doctor has prescribed TENS treatment to help treat your chronic pain. This leaflet has been produced to help you to use the machine effectively, and to answer some of your questions about TENS treatment.

After your doctor has recommended TENS treatment, a nurse specialist or Health Care Assistant (HCA) will give you specific instructions in the clinic, tailored to your particular pain symptoms. The machine should not be tried on other parts of the body, unless you are advised by your doctor or nurse specialist. As each patient is different, the way TENS therapy is used and the benefits gained will differ from patient to patient.

Benefits of TENS

- It is a therapeutic, safe and effective pain relief system
- It is non addictive
- It is safe to use at home
- It has low running costs
- Most people can get benefit from TENS. However, it may take some people longer to achieve effective pain relief than others – you may have to experiment with placement of the pads or electrodes, for example
- You may still take other pain medication if needed.

How does TENS work?

TENS is a technique for treating pain that dates back to Roman times. In the year 46AD electrical treatment (with electric eels) was used to relieve headache and gout.

Today technology has moved on and TENS units have been found to be helpful for specific painful conditions. The units are battery operated and can be worn during normal daily activity.
TENS provides pain relief by preventing pain signals from reaching the brain. It can be thought of as a powerful electrical version of ‘rubbing it better’. The unit, when switched on, stimulates skin nerves and produces a pleasant tingling sensation under the electrodes. This stimulation helps the body make its own pain relief chemicals (endorphins) in the spine and brain, reducing or preventing the feeling of pain.

Using your TENS machine

The specialist nurse or HCA will show you how to fit and use the TENS machine.

The following items will be provided by the hospital:

- The TENS unit with leads, one 9 volt battery, 1 set of 4 self-adhesive re-usable pads or electrodes and a carry case.

The TENS unit produces a safe electrical pulse that stimulates the nerves by means of 2 electrodes which stick to the skin. It is easy to operate and maintain. The nurse or HCA will show you the best place to put the electrodes.

Starting to use your TENS

1. Make sure that all the control knobs are turned off
2. Insert a 9 volt battery into the battery compartment
3. Insert the plug end of the leads into the channel/s in the TENS machine. Place the other end of the leads into the electrodes
4. Before placing the electrodes on your skin the area should be clean and free from grease and creams
5. Place the electrodes on the appropriate area. The idea is that, once the machine is on, the tingles should mix into the painful area
6. Turn the machine on slowly by rotating the intensity control in a clock-wise direction. A light will come on. Continue to rotate the intensity control until you reach the setting that produces a gentle, comfortable tingling sensation
7. If the light doesn’t come on, this indicates that the battery needs to be replaced
8. We normally suggest that you start by using the machine for an hour twice a day. If helpful, it is quite safe and appropriate to increase the time you use it. Frequently pain relief improves with time, and certainly it is best to use it for at least 1 hour at a time.

9. Pain relief varies from patient to patient, but in general, the TENS machine will only help the pain when you are wearing it. Some people do get some residual benefit however, but it is usually short lived.

10. It is quite safe, and indeed desirable, to use TENS during your normal activities rather than feeling that you should only use it sitting or lying still.

**Care of your TENS machine**

The machine must not be allowed to get wet. Do not use it in the shower or bath. If the machine is not going to be used for some months, please remove the batteries.

**Care of connecting leads**

Check that the plugs and pins are satisfactory. Occasionally problems arise when they get warped or broken. If this happens, please telephone us and leave a message and we will arrange replacements.

**Self-adhesive electrodes**

To keep the pads moist and sticky between use, ensure that they are replaced on the plastic sheet and put into a plastic bag, and kept away from a heat sources such as radiators. Some people keep them in the fridge, which may keep them sticky for longer. Re-usable self-adhesive pads may be renewed by rubbing a little tap water into the gel surface, provided they are not attached to the machine.
Care of your skin

- Skin irritation can occasionally occur under the electrode site.
- In order to minimise the possibility of skin irritation the following steps are suggested:
  - Make sure that the skin is clean before and after using the electrodes
  - Make minor location changes of electrodes if irritation develops, this can be done by changing the sites on alternate days
  - Make sure that the electrodes are firmly attached to the skin, if not, stimulation will be poor and you may feel unpleasant electric shocks, and increased skin irritation may occur.
  - If the above does not relieve any skin irritation stop using TENS treatment and contact the doctor or nurse specialist.

Cautions

- TENS treatment should not be used for any new pain without first consulting your doctor
- Never place electrodes on the front of the neck or across your heart
- Consult your doctor on continued use of the TENS machine if you are pregnant
- TENS should never be used by a patient with a pacemaker
- Do not place the pads over any joint replacement, such as knee or hip
- We advise that you do not use TENS while driving, if you have loose electrode contacts a sudden electrical 'twinge' might make you jerk the wheel with dangerous results. Similarly, we do not advise you to wear the machine whilst you are sleeping in bed.

If you have any questions or concerns please contact the nurse specialist using the number at the front of this leaflet.
Troubleshooting
The most common problem arises from failure to change the battery or failure to wear the electrodes as directed. If no stimulation occurs, the possible causes are as follows:

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Action to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light not illuminated</td>
<td>Flat battery</td>
<td>Check connection on battery, remove and replace battery</td>
</tr>
<tr>
<td>Only works intermittently</td>
<td>Loose connection</td>
<td>Check connections to machine, change leads</td>
</tr>
<tr>
<td></td>
<td>Broken Leads</td>
<td></td>
</tr>
<tr>
<td>Electrodes not sticking</td>
<td>Dry adhesive</td>
<td>Rub a little tap water on to sticking sticky side, replace electrodes</td>
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</table>

If all of the above fail call the TENS Help Line
Tel: 0300 422 4033

Accessories for the machine
The hospital provides you with the loan of the machine together with electrodes and wires. We are happy to replace broken accessories within reason.

**We cannot provide replacement batteries or pads and ask that you replace the battery and pads as necessary.** Rechargeable batteries can be used.

Replacement electrodes or pads can be purchased from most major pharmacists or the pain clinic nurse can give you information on how to obtain them via the Internet

Returning the machine
As we have several hundred TENS machines on loan to people and we are always short of machines, it is essential if you are no longer using the machine, you return it to the hospital. This allows another patient to be offered this form of treatment.
We do a recall of machines at regular intervals – if you receive a recall slip, we would be grateful if you would either return the slip, or telephone 0300 422 4033 if you are still using the machine.

When returning the machine, please fill in the return slip, which you will find on the final page of this leaflet. This should be enclosed with the machine and returned to West Block Outpatients in Cheltenham General Hospital, Gloucestershire Royal Hospital, Tewkesbury, Stroud, Cirencester or Dilke Hospitals.

Contact information

For any queries about your machine phone the clinic nurse on:
Tel: 0300 422 4033
Please leave a message with your name, date of birth, phone number, and also your hospital number.
The pain clinic nurse will return your call at the next available opportunity to discuss your query.

Content reviewed: July 2015
TENS machine return slip

Name ___________________________________
Address ___________________________________
___________________________________
___________________________________
Hospital number ____________________________
Date of return ____________________________

TENS machine repair slip

Name ___________________________________________________________________
Address __________________________________________________________________
___________________________________
___________________________________
Hospital number ____________________________
Telephone number ____________________________