**Transcutaneous Electrical Nerve Stimulation (TENS) – An information guide for patients**

**What is TENS and how does it work?**

TENS is a type of treatment to help relieve pain. It can be used alongside other painkiller medicines, or on its own. The TENS unit is small, portable, and has a battery which sends electrical signals along leads to sticky pads which you attach to your skin.

These electrical signals help to reduce pain in two ways:

1. They can block the pain signals to and from your brain, which normally tell you that you are in pain.
2. They encourage your body to make more endorphins, which are hormones produced by your body naturally, to help kill pain.

The electrical signals are not painful themselves and should feel pleasant.

**How do I use the TENS machine?**

1. Insert the battery.
2. The unit you have been given has two dial controls at the top which work two separate leads. This will allow you to treat two separate areas of pain, or one larger area, at the same time.

Ensure both controls are turned as far as they can go anticlockwise. The green lights below each control should be off. If one or both are on, keep turning the control(s) anticlockwise until you feel a ‘click’ and the light at each side switches off.

1. Take one of the leads and plug the single end into a socket (like a headphone socket) beside one of the controls. Plug the other (double) end into two of the sticky pads. You will notice that one end is red and the other black. It does not matter which end goes into which pad.
2. Place the pads on your skin (see ‘Where should I put the sticky pads?’ below). Remember to leave at least 2cm (or 1 inch) between the pads.
3. Very gently, turn the control clockwise, until you feel a ‘click’ and the green light below appears. Very slowly, continue to turn the control clockwise until you feel a tingling sensation through the pads. You can adjust the control up or down until the sensation is comfortable.
4. If using a second lead, repeat the process as above.
5. When stopping treatment, or changing the position of the pads, make sure you switch both controls off fully (anticlockwise, until you feel a ‘click’ and the green light disappears) before removing the pads.

**Where should I put the sticky pads?**

Your doctor or nurse will show you the best place for you to put the pads. Usually they are placed at either side of the painful area, with at least 2cm (or 1 inch) between the pads. You can try different positions to see what feels best for you. If your pain is over a large area, you can place one pad at one edge of the pain, and the second pad at the other edge. You may also try using all four pads to treat a large area.

The pads can be used many times, for as long as they remain sticky.

**Which settings do I use, and can I change the settings?**

The settings will usually be set for you before you are given the unit, but you can also change these settings to suit you better once you feel comfortable with using the TENS machine.

At the back of the machine, behind the battery flap, there are two dials which adjust the speed and strength of the electrical signals. These are usually set at 220 on the left dial, and 80 on the right dial. It is best to start at these settings, but you can experiment with adjusting these once you get used to the TENS treatment.

Below these dials is a switch, which sets the electrical signal to three different types of sensation:

 ‘C’ (in the middle) = ‘continuous’ frequency – a steady, unchanging pulse

 ‘B’ (to the left) = ‘bursts’ – a short, tapping pulse

 ‘M’ (to the right) = ‘modulating’ – a gradually increasing and decreasing pulse, like waves

It is best to start with ‘C’ and then experiment once you are used to the treatment.

**How long should I use the TENS for?**

The first time you use the TENS, try it for no longer than 30 mins to make sure you feel comfortable and it is not making your pain any worse. After that, you can use the TENS for as little or as long as you like, but stop using it if it feels uncomfortable. Most people need at least an hour to notice any difference to their pain.

You can walk about while using TENS and the unit has a clip to attach to your clothing.

Some TENS units have a second switch below the B/C/M switch. This is a timer and can be set to 30 mins or 60 mins. You can use this function if you wish, and it can be particularly helpful if you think you may fall asleep during treatment!

**I have been given gloves and/or socks for the TENS machine. How do I use these?**

If you are being treated for a condition called ‘peripheral neuropathy’, you may have been given gloves and/or socks. Each of these has a lead which plugs into one of the TENS unit lead ends instead of the sticky pads. It is important to remember to attach both ends of the TENS lead to either two socks, two gloves, or one of each. With two TENS leads (one for each control), you can use both gloves and socks at the same time if you wish.

If you prefer to treat only one hand or one foot at a time, attach one lead end to the glove or sock and one lead end to a sticky pad, which should be placed no less than 2 cms (or 1 inch) above the edge of the glove/sock.

The gloves and socks can be washed. Please follow instructions included in the packaging.

**Is this treatment safe?**

Yes, this treatment is completely safe, but please make sure you do not get any parts wet (just like any other electrical equipment), and stop if your skin becomes red or sore, or your pain gets worse. If this happens, or you have any other concerns or questions about the treatment, please call the nurse using the number given below:

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