The Use of TENS in Labour

What is TENS?
TENS (Transcutaneous Electrical Nerve Stimulation) is a non-invasive, drug-free method of controlling pain. It has been used for many years for the control of acute and chronic pain, particularly where people are wishing to minimise their use of medication. Over the last 15 to 20 years women have been using TENS as a means of managing labour pain.

The TENS unit consists of a battery powered stimulator and one or two pairs of electrodes with connecting leads. A mild electrical current is produced by the TENS unit which you will feel as a tingling sensation on your skin. The intensity, rate and duration of the electrical impulses produced by the TENS unit can be adjusted by the person using it.

Benefits of using TENS in labour
- TENS is a form of non-invasive pain relief
- TENS has no harmful effects on either the mother or baby
- TENS does not restrict your ability to move about in labour
- TENS can be applied at home during early labour
- Other pain relief options can still be used if TENS does not provide you with adequate pain relief

How is TENS used?
In order to manage your pain more effectively it is important to use TENS as early in labour as possible. TENS is more effective if you use it in combination with other coping strategies such as relaxation, positioning and massage.

The TENS electrodes need to be positioned over the nerve pathways which transmit pain messages from the uterus and cervix during labour.

Initially, you may wish to start with the Channel 2 electrodes placed either side of the spine just above the waist (see photo over page).

As your labour progresses or if you are experiencing lower back or pelvic pain you can start using the Channel 1 electrodes which are placed either side of the lower spine below the waist (see photo over page).

The Channel 1 and Channel 2 electrodes can be used at the same time if needed.

How does TENS work?
When we experience pain, messages are sent along the nerves to the brain and then pain is felt. The TENS unit produces tiny electrical impulses which are sent through the skin to the nerves. This electrical stimulation of the nerves blocks those pain messages from reaching the brain. The brain then registers the tingling sensation produced by the TENS unit rather than the pain.

TENS also increases your body's production of endorphins - these are your body's natural painkillers.
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**How is TENS used (continued)**

Once the electrodes are in position, check that the booster switch is turned off or set to minimum before turning the machine on. Slowly increase the intensity until you feel a tingling sensation under the electrodes - it should feel strong but comfortable. During contractions you can increase the intensity further by using the booster control on the TENS unit. As labour progresses, the intensity may need to be increased because your body gets used to the sensation of TENS.

For more detailed information on how to use TENS in labour it is advisable to attend an education session with a physiotherapist and read the instruction booklet provided with the TENS unit.

**How effective is TENS?**

For many women, TENS is an attractive first option for pain relief in labour. Women who use TENS report that they have a feeling of control over their pain and that they can actively participate in their labour which is not always possible with other forms of pain relief. Many women who have used TENS are keen to use it again for subsequent labours. However, the results of research on the effectiveness of TENS for relieving labour pain are conflicting. Overall, there is weak evidence of the positive effects of TENS on labour pain, however, better quality research is needed in this area.

**Precautions when using TENS**

TENS is an electricity-based apparatus and therefore care must be taken when using it. Specific precautions include:

- TENS should not be used in the bath or in the shower
- Women who have metallic implants or an implanted electronic device, (e.g. a cardiac pacemaker) should not use TENS
- TENS should not be used whilst driving a car
- TENS should not be used prior to the 37th week of your pregnancy unless advised by your doctor or physiotherapist
- TENS must be turned off before applying or removing the electrodes
- TENS should be kept out of reach of children

For further information on learning how to use TENS in labour or hiring a TENS unit contact the Physiotherapy Department at KEMH on (08) 9340 2790. Early bookings are essential.