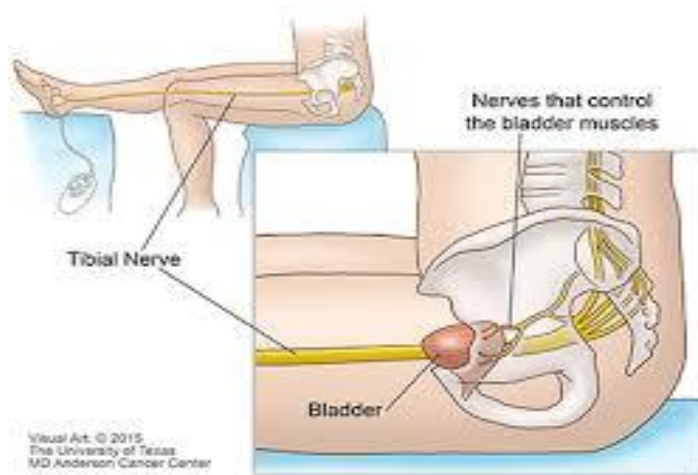


Transcutaneous Tibial Nerve Stimulation (TTNS)

Patient Information – Urology Service

What is transcutaneous tibial nerve stimulation (TTNS)?

Bladder function is regulated by a group of nerves called the sacral nerves plexus. By stimulating these nerves through gentle electrical impulses, your bladder function can improve. This process involves stimulating the tibial nerve that runs from the ankle, up the leg, and to the bladder nerves. This can be done using a TENS machine, which is often used for pain relief.



The TENS machine can be helpful for overactive bladder symptoms of urinary frequency, urgency (having to rush to the toilet to pass urine), urge incontinence (leaking urine when experiencing urgency), nocturia (waking up at night to pass urine), bladder pain and some types of difficulty emptying the bladder (non-obstructive voiding dysfunction).

The stimulation to the tibial nerve acts by dampening down the bladder's activity. By allowing you to hold more in your bladder, you have more time to make your way to the toilet and decrease the urgency sensation.

Why do I need this treatment?

TTNS is offered when other conservative measures have not worked for you or you need a little extra help with these. Other conservative methods include reduction/moderation of fluid intake and eliminating possible bladder irritants (e.g. caffeine, fizzy drinks, alcohol, high sugar and spicy foods), lifestyle advice, bladder retraining, pelvic floor muscle exercises, and medications.

What does TTNS treatment involve?

Two adhesive/sticky pads (electrodes) will be placed on the inside of your ankle. These will be attached to the wires on the TENS machine. The machine is then turned on and you control the intensity of the impulses. The sensation should be strong but not uncomfortable.

You should do this treatment every day, if possible, for 30 minutes. It doesn't matter what time of day you do this, but if you tend to get swollen ankles later in the day, you should try and use it in the morning.



We will loan you a machine at first, so you can see if this treatment is going to work for you. At the end of the trial, if you are happy with the result, you can then purchase your own machine and continue the treatment from home.

If you can't wait six weeks to be loaned a machine (our waitlist can sometimes be several months), you can decide to purchase your own machine and then have an appointment with a Continence Nurse. She will show you how to set it up and then you can begin and continue your treatment from home with follow-up from the nurse at various stages.

How effective is this treatment?

Research has shown that patients who have TTNS for overactive bladder have experienced improvement in their symptoms. The amount of improvement can differ. This treatment does not have any side effects and patients find that even if improvement is minimal, the benefits outweigh not having any treatment at all, or treatments that do have side effects. Most patients notice changes within four weeks, while others notice changes after six to eight weeks.

After an initial daily treatment for 12 weeks, you can continue with slightly less frequency. Once or twice weekly treatment can help to keep your symptoms under control. This can be increased again if you find that your symptoms are worsening again.

Are there any risks or side effects?

- You may feel some numbness / tingling in your foot during the treatment or upon standing but this will resolve.
- You may get some local irritation from the adhesive pads. If you have dry or scaly skin, you may need to change the pads more frequently (they usually last two to three months,

depending on use and care).

- TTNS does not interfere with any medications.
- **You must not use a TENS machine if you have a cardiac pacemaker or an internal cardiac defibrillator.**

Please discuss with us if you are concerned about the effect on other medical conditions you may have.

Where can a TENS machine be purchased from?

There are various outlets that TENS machines can be purchased from. There are two different types that can be used for this treatment. A digital TENS machine that has buttons and an LCD display can be used, or an older style TENS with dials can be used. You will also need two electrodes (sticky pads). These need to be changed every two to three months, depending on use and care.

If you are looking online, please do not purchase a machine that is for massage or that has pre-set programmes. You must be able to change the frequency and pulse width. Discuss with us first if you are not sure.

Please speak with your continence nurse about which type may suit you best.

Contact information

For more information about:

- Hospital and specialist services, go to www.cdhb.health.nz
- Your health and medication, go to www.healthinfo.org.nz

For information on parking, how to get to the hospital, and visiting hours, please visit www.cdhb.health.nz