

**UROGYNAECOLOGY DEPARTMENT
UNIVERSITY HOSPITAL OF WALES**



PERCUTANEOUS TIBIAL NERVE STIMULATION (PTNS)

What is Percutaneous Tibial Nerve Stimulation (PTNS)?

Percutaneous Tibial Nerve Stimulation is treatment that is used for patients who have undergone urodynamic studies and have been diagnosed with an overactive bladder or bladder non-compliance. Overactive bladder affects around 10% of the adult population.

PTNS is offered when treatments such as bladder retraining, pelvic floor exercises, medication or botox injections into the bladder have been unsuccessful. PTNS has proven to be a highly effective treatment with local studies showing patient response of 70– 80%.

How does Percutaneous Tibial Nerve Stimulation work?

Bladder function is controlled by a group of nerves at the base of the spine called the sacral nerve plexus. Stimulation of these nerves using electrical impulses (neuromodulation) can help to improve your bladder symptoms and reduced urinary urgency and frequency. PTNS is performed in an outpatient setting and is a safe, non-invasive, effective form of treatment with minimal side effects.

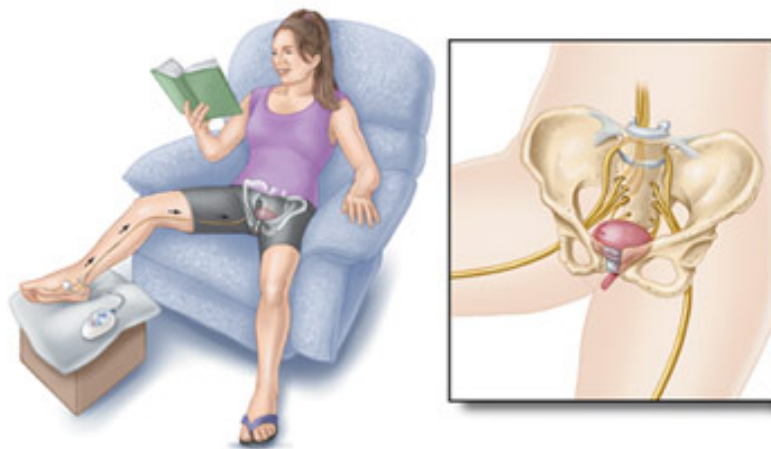


Image courtesy ©Uroplasty, Inc

What does the treatment involve?

You will be asked to sit on a couch and remove your shoes and socks/tights so that both ankles are accessible. A very fine needle (similar to an acupuncture needle) is inserted close to your ankle, near the tibial nerve. A sticky surface electrode pad will be placed on the bottom of your foot. This is connected to a hand-held stimulator which delivers the electrical impulses during treatment.

The stimulator will be placed in test mode and the settings increased gradually until responses such as a tingling sensation around your ankle, heel or toes is felt or an involuntary movement of your toes is observed. You may also experience a numbness or heaviness in your toes or foot. This confirms that the needle is in the correct position and treatment can be commenced on a timed programme for 30 minutes.

You will need to remain seated and advised to try not to move your leg during this time. Once the 30 minutes of treatment has been completed the stimulator is switched off, disconnected and the needle removed. You will be able to resume normal activities immediately after treatment. You may experience a slight tingling sensation in your foot for a few minutes after treatment has finished.

How often will I receive PTNS treatment?

You will need to attend on a weekly basis for 12 consecutive weeks. It is important that you are able to attend all 12 appointments as breaking the cycle can affect the success of treatment. If you fail to attend 2 or more PTNS sessions within the 12-week treatment cycle it is likely to have a considerable impact on your treatment results.



What are the risks associated with this treatment?

The risks associated with this treatment are low. The most common side effects are mild discomfort, toe numbness, minor bleeding/bruising /redness around the needle insertion site.

How soon will I see a change in my bladder symptoms?

It can take up to 6-8 weeks before you see any changes to your bladder symptoms. By the end of the 12 weeks of treatment you may see a marked reduction in your symptoms of urinary urgency, frequency and urge incontinence.

What happens once I have finished 12 weeks of treatment?

Your bladder symptoms will be assessed during the 12th week of treatment. If your symptoms have improved significantly you may be offered additional top up sessions of PTNS. This is usually once every 4-6 weeks for the first few months. If your symptoms remain improved after this period of time it may then be possible to increase the duration between each session.

Additional Requirements of treatment:

You will be asked to complete some quality of life questionnaires and bladder diaries before, during and after PTNS treatment so that your bladder symptoms can be fully monitored and assessed.

PTNS is not suitable for :

- Patients with pacemakers or implantable defibrillators
- Patients prone to excessive bleeding
- Patients with nerve damage that could impact either percutaneous tibial nerve or pelvic floor function.

- Patients who are pregnant or planning to become pregnant during the duration of the treatment.

Additional assessment to confirm suitability for PTNS may be necessary if you have a history of:

- Peripheral oedema (lower leg/ ankle swelling)
- Cardiac history
- Neurological history

Additional Information:

International Urogynaecological Association (IUGA)

Yourpelvicfloor.org:

[https://www.yourpelvicfloor.org/media/Percutaneous Tibial Nerve Stimulation RV1.pdf](https://www.yourpelvicfloor.org/media/Percutaneous_Tibial_Nerve_Stimulation_RV1.pdf)

British Society of Urogynaecology (BSUG)

<https://bsug.org.uk/budcms/includes/kcfinder/upload/files/info-leaflets/PTNS%20BSUG%20July%202017.pdf>

Should you require any further information please contact:

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