

PATIENT INFORMATION

Advice on Electrical Stimulation for your Pelvic Floor Muscle

This leaflet explains what electrical stimulation involves and how to use a stimulation machine for optimising / improving your pelvic floor function. It is very important that you read this information leaflet and the one provided by the manufacturer in the stimulation kit. This will make sure you are doing everything correctly.

Your Pelvic Floor Muscle

Your pelvic floor muscles are located at the base of your pelvis and they help to support the bladder, uterus and bowels. The muscles are held in place by a group of ligaments, which anchor the muscle to the pelvis, these ligaments help the muscles to support your bladder, uterus and bowel especially during an increase in intra-abdominal pressure, for example; lifting, bending, carrying or straining.

Your pelvic floor muscles help to keep your bladder and bowel openings closed to prevent any unwanted leaking (sometimes known as incontinence). These muscles then need to relax to allow you to successfully empty your bladder and bowel (to pass urine and have a poo / bowel movement).

Up to one third of women in the UK will experience a problem with their pelvic floor muscles in their lifetime. The most common of these problems is stress urinary incontinence and a pelvic organ prolapse. Stress urinary incontinence occurs when you cough, sneeze, laugh, run, carry or lift heavy objects and you leak a little or a lot of urine. When there is descent of pelvic organs into the vagina due to ligament or muscular weakness. Patients often describe this as a heavy, dragging feeling within their vaginal area, and some people can feel a bulge in their vagina, this is called a pelvic organ prolapse.

Working on your pelvic floor muscles can help to stop symptoms of incontinence and / or prolapse from getting worse and in the majority of cases it can also help to improve your symptoms. However, sometimes your muscles may need a little bit of

extra assistance to maximise their function, if this is the case your Pelvic Health Physiotherapist will discuss electrical stimulation with you.

What is Electrical Stimulation?

Neuromuscular electrical stimulation involves sending an electrical impulse or signal to the pelvic floor muscles which help achieve a muscular contraction.

This electrical impulse is usually delivered by a bi-phasic current, this means that charged particles move from one side of the probe into the pelvic floor muscles and then back into the other side of the probe. This type of current reduces the chance of skin and tissue irritation.

The electrical stimulation machine is commonly used and recommended by Pelvic Health Physiotherapists for many conditions including:

- Improving the strength and condition of your pelvic floor muscles if they are very weak and deconditioned
- Helping you to locate, identify and isolate your pelvic floor muscles to help you learn how to do a pelvic floor muscle contraction correctly
 - Some people have good tone in their muscles but struggle to locate, identify and isolate their pelvic floor muscles well enough to be able to perform a voluntary contraction of them. Electrical stimulation can be helpful to re-educate the sensorimotor pathways to help you learn how to contract your pelvic floor muscles correctly
- In both forms of internal NMES (neuromuscular electrical stimulation) and external TENs (transcutaneous electrical nerve stimulation) can be very successful at reducing bladder and bowel urgency which can often lead to loss of control
- Persistent pelvic pain can become more manageable with including a course of NMES or TENs in the treatment programme. In many cases it can help to reduce / replace the use of medication, it is also non-invasive, cheap and risk free with no side effects.

How to Use Electrical Stimulation

1. Read your instruction leaflet provided by the manufacturer
2. Put some water based lubricating jelly on to the metal aspects of the probe
3. Insert the probe into your vagina, with the metal parts facing towards your hips, make sure you keep the wires outside of your vagina
4. Connect the wires from the probe into the wires from the machine
5. Turn the machine on and select the program you want to use / the program recommended by your Pelvic Health Physiotherapist
6. Some women find it more comfortable and reassuring to put their underwear back on again and some trousers like gym leggings for support
7. Try and actively participate with the stimulator during part of the cycle / workout to maximise your potential. This means 'joining in' with you tightening your pelvic floor muscles at the same time that the stimulation machine is contracting your muscles
8. Once you have finished using the probe make sure you clean and store the probe as per the manufacturer guidelines

Start by using the machine in sitting or lying, then gradually progress to using the machine in standing with your feet hip width apart. This can then be made harder by standing with your feet further apart or by moving about.

All of our muscles within our body consist of two different types of fibres, known as type 1 and type 2. 70% of our pelvic floor muscles consists of the Type 1 muscle fibres which are also known as our endurance / slow twitch fibres, the other 30% of our pelvic floor muscles consists of the Type 2 muscle fibres which are also known as fast twitch.

We need our Type 1 (endurance / slow twitch) muscle fibres to support our pelvic organs on a daily basis and to help prevent any urinary leaking when walking around. However, our Type 2 (fast twitch) muscle fibres help to support the pelvic organs and prevent urinary leakage during any sudden increase of abdominal pressure, for example – coughing, sneezing, laughing, running, lifting anything heaving, standing up from sitting.

These two different types of fibres need to be considered when programming your electrical stimulation machine.

Suggestion of settings for your machine (for improving pelvic floor muscle function and strength)

Treatment Time	20 – 30 seconds (daily or every other day)
Frequency measured in Hertz (pulses per second)	To target just the Type 1 (slow twitch / endurance) muscle fibres you want to program your machine to approximately 10Hz To target the Type 2 (fast twitch) muscle fibres you want to program your machine to approximately 35Hz To target both the Type 1 and Type 2 muscle fibres you want to program your machine to approximately 35Hz
Pulse Duration Measured in microseconds	Start with setting this to 250 microseconds, however, if you find this too uncomfortable / slightly painful, then this can be lowered to 200 – 220 microseconds
Duty Cycle on / off or work / rest ratio for the stimulator	Activation phase = your Pelvic Health Physiotherapist will advise you on how long this should be after completing an internal examination Rest phase = this should be equal to or slightly longer than the activation phase
Ramp up time Time taken for the intensity to be reached	Some machines will have this pre-set Suggested ramp up time – 0.5 – 1 second
Intensity measured in milliamps	This is the setting that will change / be controlled by you at every treatment As you initially turn up the intensity you will start to feel a light buzzing or tingling. You may need to turn up the intensity further to feel a contraction, this might feel like a gripping or tightening

	<p>sensation. You do not want to turn it up so it's painful. It does not mean the higher the intensity the better the outcome</p> <p>Every time you use your stimulator do not assume the intensity will be the same as the last treatment. It can be different from day to day</p>
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It should not be a painful experience using an electrical stimulator. If it is stop using it and get in contact with your Pelvic Health Physiotherapist. It may be beneficial for you to bring your electrical stimulation machine to your Pelvic Health Physiotherapist for them to check your settings. You can also contract the manufacturer for more guidance.

The table above is mainly aimed at treating stress urinary incontinence and pelvic organ prolapse, however electrical stimulation can also be used to treat urinary urgency. This is when you feel a sudden and very intense urge to pass urine and you are unable to delay going to the toilet. There are often only a few seconds between needing to urinate and the release of urine. This type of incontinence often occurs as part of a group of symptoms called overactive bladder syndrome. If you suffer from urinary urgency electrical stimulation can be very beneficial, but with lower frequency (Hertz) programmes which are aimed at calming the nerves to the bladder and rectum, making them less irritated. These programmes will normally be around 10Hz (Hertz). However, people with symptoms of urinary urgency also benefit from strengthening their pelvic floor muscles to help to control / defer these urges.

Contraindications / when not to use an electrical stimulation machine

- Severe bruising around the pelvic area
- Known pregnancy / actively trying to conceive
- Cardiac pacemaker
- Less than 12 weeks after childbirth
- Less than 12 weeks post-surgery to the perineal, pelvic or abdominal area
- If you have a vaginal infection
- If you have a urinary tract infection
- Current cancer / malignancy in the pelvic or abdominal area which is being treated
- Recent abnormal cervical smear
- Broken skin in the area where the electrode / probe will be placed
- Unexplained bleeding from the vagina or anus
- Undiagnosed severe pain in the abdomen / pelvic area
- Swollen / bleeding haemorrhoids

Precautions / things you should be cautious about before using an electrical stimulator machine

- Limited internal or external feeling around your vagina
- If you have an allergic reaction to the electrode material (which is normally nickel) or the lubricating gel
- If you have diabetes
- If you have epilepsy

- If you have uncontrolled high blood pressure
- If you have haemophilia or a blood clotting disorder
- If you have a vaginal pessary which cannot be removed
- If you have a severe pelvic organ prolapse
- If you have had undergone radiation to the tissues within the pelvic area with the last 6 months
- If you are menstruating (on your period)
- If you have suffered sexual abuse
- If you have any scar tissue within the pelvic area

The precautions listed above do not mean that you are unable to use electrical stimulation. However, you may need to be more cautious and adapt how you use your machine. If you are unsure of any of the precautions in regard to using the machine, please contact your Pelvic Health Physiotherapist or the manufacturer for more guidance.

Units available

If your Pelvic Health Physiotherapist has suggested an electrical stimulation machine to you, you will be able to go on to a waiting list to hire a machine from the trust. However, if you do not want to wait you can alternatively purchase your own, which you can then bring in to your Pelvic Health Physiotherapist to make sure that the settings are correct for you. Please find below a suggestion of units available, you will find a wider range of units available on the internet than what is suggested below.



TensCare iTouch Sure - pelvic floor exerciser to help strengthen and tone the pelvic floor.

Available from Amazon for £56.99

This machine features pre-set programs for various conditions as well as custom programs that can be set by your Pelvic Health Physiotherapist. The preset programs are named for conditions by the manufacturer which can be a little confusing. Consider the parameter settings and discuss this with your Physiotherapist



Kegel8 Tight & Tone Electronic Pelvic Toner, electronic pelvic toner strengthens weak pelvic floor muscles

Available from Amazon for £119.99



NeuroTrac Pelvitone NMS Stimulator for pelvic floor (kegel) health

Available from Amazon for £124.58

Resources:

www.pelvicfloorexercise.com.au/resources/post/electrical-stimulation-pelvic-floor

www.nhs.uk/conditions/urinary-incontinence/symptoms/

www.propelvic.com/2021/10/01/which-electrical-stimulation-probe-is-right-for-me

The POGP leaflet – The Pelvic Floor Muscle, A Guide for Women

NHS Lothian patient information leaflet – Pelvic Floor Muscle Electrical stimulation machine

For further assistance or to receive this information in a different format, please contact the department which created this leaflet.