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Shockwave Therapy

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Patient Information

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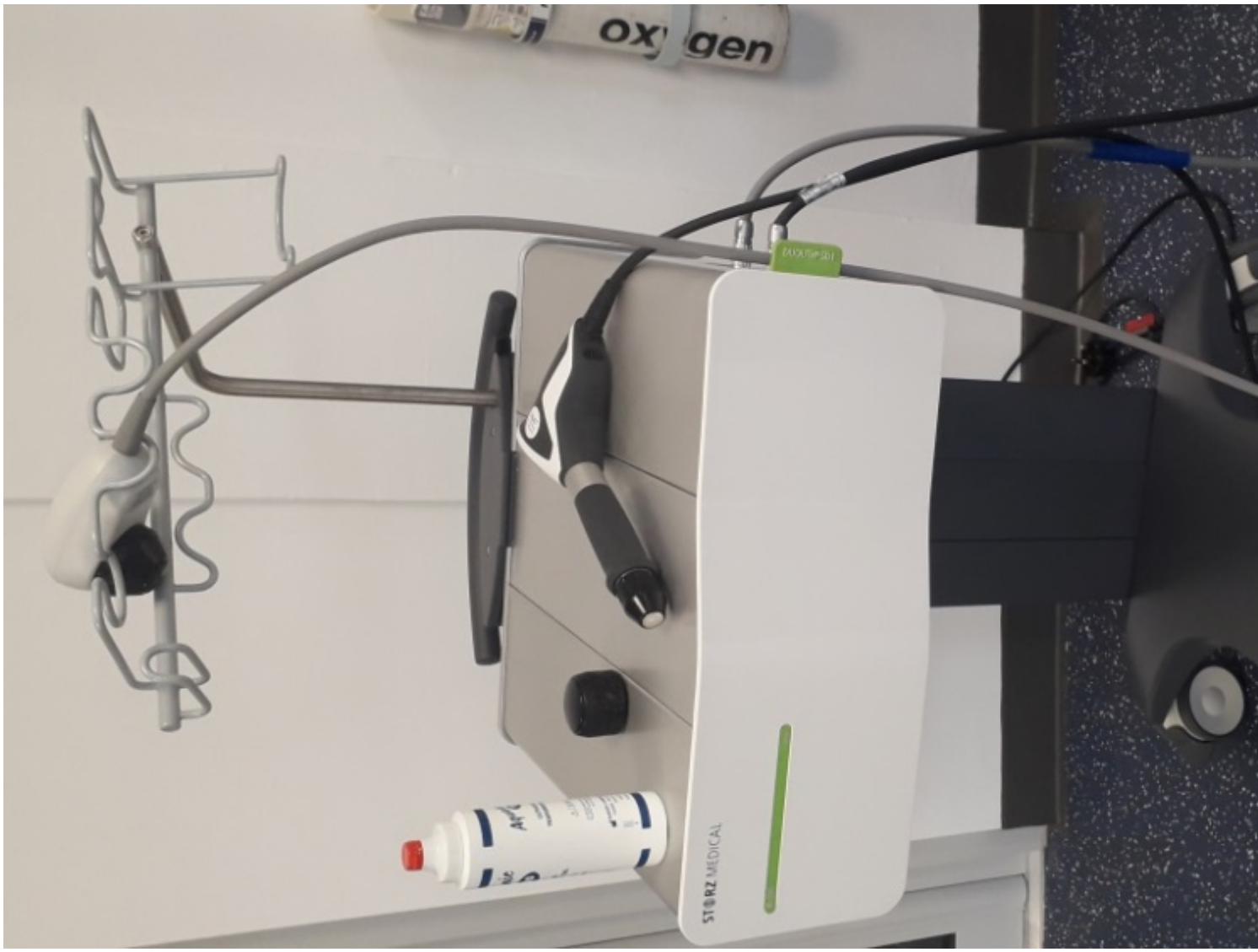
Introduction

This leaflet explains more about the use of Extracorporeal Shockwave Therapy (ESWT). It includes information on the benefits, risks, and any alternative treatments, as well as what you can expect when you come to hospital. If you have any further questions, please speak to a doctor, nurse or therapist caring for you.

What is Radial Extracorporeal Shockwave Therapy (ESWT)?



Radial Extracorporeal Shockwave Therapy is a treatment usually offered when chronic symptoms have persisted for at least 3-6 months and have not responded to conservative treatments, such as physiotherapy, activity modification, ice therapy, orthotics, painkillers, and steroid injection.

A course of ESWT treatment normally requires one treatment session per week for 3 weeks in a row. Treatment should not be more than 2 weeks apart. A follow up appointment will be arranged for 4-6 weeks after the last session to assess the response to ESWT. 3 further sessions maybe offered if symptoms have improved but not resolved.

ESWT is best utilised alongside a comprehensive rehabilitation programme.

How does ESWT work?

It is still not known exactly how ESWT works, but it is thought that treatment may initiate an inflammation (healing) response in the tissue that is being treated. The body responds by increasing the blood circulation and metabolism in the impact area, which in turn accelerates the body's own healing processes. The shockwaves overstimulate the nerves, which can reduce sensitivity and pain in chronic conditions.

What is ESWT used to treat?

ESWT can be effective on a wide range of chronic tendon problems. Here are some examples of conditions where ESWT has been shown to effectively treat symptoms and improve function:

- Plantar fasciitis (heel pain)
- Patellar tendinopathy (jumpers' knee)
- Achilles tendinopathy
- Greater Trochanteric Pain Syndrome (lateral hip pain)
- Proximal hamstring tendinopathy

Risks

The National Institute for Health and Care Excellence (NICE) has deemed this procedure to be safe, although ESWT is not appropriate for everyone and there are some uncertainties about how well it works (see further information section).

You are not allowed ESWT if any of the following list apply to you:

Absolute Contraindications

- Pregnant / trying to conceive
- Under 18 years of age
- Steroid injection into the area to be treated within the last 12 weeks
- Haemophilia / clotting disorder / risk of haemorrhage
- Cardiac pacemaker or another cardiac device
- Unstable heart condition
- Cancer
- Tumour at site of treatment
- Infection at site of treatment
- Acute inflammation in the treatment area
- Current thrombosis
- Epilepsy

- Taking certain type of antibiotics called Fluoroquinolones e.g. ciprofloxacin (Cipro), gemifloxacin (Factive), levofloxacin (Levaquin), moxifloxacin (Avelox), norfloxacin (Noroxin), and ofloxacin (Floxin).

- Osteogenesis Imperfecta (a group of rare disorders affecting the connective tissue and characterized by extremely fragile bones that break or fracture easily)

- Powered implant – e.g. nerve stimulator

You may not be allowed to have this treatment if you have one of the following conditions:

- Taking anticoagulant medication, e.g., Warfarin or Rivaroxaban

- Taking anti-platelet medication, e.g., Aspirin, Clopidogrel

- Fracture near the treatment area

- Underlying prosthetic joint

- Inflammatory diseases (not during an inflammatory phase or flare up)

- Previous Achilles tendon rupture (not until solid repair confirmed)

- Acute tendon / plantar fascia tear

- Increased sensitivity over area to be treated
- Decreased sensation over area to be treated

Potential side effects

- Bruising

- Pain
- Local swelling
- Skin reddening
- Numbness or altered sensation
- Skin “break”
- Tendon / fascia rupture

These side effects should resolve within a week before your next treatment. There is a small risk of tendon rupture or ligament rupture and damage to the soft tissue, however studies have shown between five and seven out of ten patients have found it to be effective.

Giving consent (permission)

We want to involve you in decisions about your care and treatment. This will include a discussion with your therapist about all your treatment options available, including ESWT, with the risks and benefits of all options explained in detail.

If you decide to proceed with ESWT, you will be asked to sign a consent form. This confirms you understand and accept the risks and benefits involved with the treatment.

If you would like more information about our consent process, please speak to a member of staff caring for you.

What does ESWT involve?

Firstly, you will need to be assessed to ensure ESWT is appropriate for you. Once this has been established and you have filled out your consent form, you will be booked in for treatment. The delivery of ESWT takes approximately five minutes for each treatment session. Positioning during treatment will depend upon the area being treated. This may include sitting up or lying on your front or side. We will ensure you are as comfortable as possible throughout the treatment.

A contact gel is applied before administering the ESWT. Treatment is non-invasive and involves mechanical shockwaves being passed through the skin to the affected area via a hand-held probe. Extracorporeal means outside the body. The shockwaves are not electrical but are low energy sound waves that can be heard.

Most patients do experience some pain or discomfort during the procedure. You will be asked how much pain you are experiencing during the treatment, and we will try to adjust the treatment to help manage this.

Current evidence suggests that ESWT is a safe and effective treatment; however, it is most effective when combined with a full range of rehabilitation, which will be agreed with you by your treating Physiotherapist.

What can you expect after the ESWT?

You may experience a reduced level of pain, or no pain at all, immediately following the ESWT treatment, but pain may occur a few hours later. This usually lasts for a couple of days, but in rare cases can last longer.

Many patients will experience an improvement in symptoms almost immediately; however, others take several weeks to respond. You should be able to continue your usual activities following the ESWT treatment. However, do not do anything you would not normally do. It is advised you avoid strenuous, pain-provoking activities that stress the affected / treated area for 48 hours following the ESWT treatment. This may include running, jumping and hopping. This can be slightly different for everyone; therefore, your Physiotherapist will give you individual advice that is appropriate for you. Following the course of treatment, you will be reviewed to assess the effectiveness of the treatment.

What to do if I you are in pain after the ESWT treatment

If necessary, you may use over-the-counter painkillers, unless you have a medical reason not to (or pain killers prescribed by your doctor). **Do not use ice on the treated area or take non-steroidal anti-inflammatory medicines (e.g., ibuprofen or naproxen) as these may reduce the healing effect of ESWT.**

If you have any concerns following the ESWT treatment, please contact your Physiotherapist for advice during normal working hours. Otherwise, please contact your General Practitioner (GP) or NHS 111 or attend your local Out of Hours Service if it is more urgent. If you experience sudden onset of pain to the area or any loss of function, please go to your nearest Emergency Department.

Stopping treatment

You can stop treatment at any time. However, we do recommend that you complete the planned treatment course, as some effects are temporary and require repeated sessions to have a long-term impact.

Alternative treatment

ESWT is a treatment option if standard treatments have been exhausted. These treatments include physiotherapy, adjusting types of activities / rest, orthotics (Podiatry), ice therapy, and pain relief medication. In some circumstances, there are surgical options available; however, this would need to be discussed with a member of the Consultant's team.

Further information

NICE Extracorporeal shockwave therapy for refractory plantar fasciitis (2009)

https://www.nice.org.uk/guidance/ipg311

NICE Plantar Fasciitis ESWT Patient Information leaflet (2009)

https://www.nice.org.uk/guidance/ipg311/resources/treating-chronicplantarfasciitis-using-shockwave-therapy-pdf-312696253

NICE Extracorporeal shockwave therapy for Achilles tendinopathy (2016)

https://www.nice.org.uk/guidance/ipg571

NICE Achilles Tendinopathy ESWT Patient Information leaflet (2016)

https://www.nice.org.uk/guidance/ipg571/resources/extracorporealshockwavetherapy-for-achilles-tendinopathy-pdf-3541876757701

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