

Extracorporeal Shockwave Therapy

A Guide for Patients

What is it?

Extracorporeal Shockwave Therapy (ESWT) is a non-invasive treatment in which a device is used to pass soundwaves at a set frequency through the skin to the affected area. It is purely a mechanical wave - not an electric one. Shockwave is an accepted intervention in the UK and treatment may provide pain relief for certain conditions.

How does it work?

The treatment starts a pro-inflammatory response in the affected tissues which increases the blood circulation and metabolism in the area and accelerates the body's own healing processes. Alongside the healing processes, the shockwaves generated can also provide some pain relief in the tissues.

How is the shockwave delivered?

The machine uses an air compressor to move a small metal ball bearing along a tube at high-speed causing a soundwave to be transmitted into the skin. This can be quite noisy but shouldn't be too painful, instead, feeling like a strong vibration. Contact gel will be applied to the skin to improve the transmission of the shockwave.



Image courtesy of Venn Healthcare



Image courtesy of Venn Healthcare

Why chose ESWT?

Shockwave therapy stimulates and supports the body's self-healing mechanisms. ESWT is a non-invasive treatment modality - there are no medications such as cortisone or surgery involved so it is a low risk treatment. It is common to have some immediate pain relief and studies have shown positive outcomes in approximately 70% of cases. It is included in the NICE guidelines for the management of chronic tendinopathies and soft tissue conditions such as plantar fasciitis, achilles tendinopathy and tennis elbow but can be used for most common tendinopathies.

Frequently Asked Questions:

What is ESWT used to treat?

ESWT could be used to help treat the following conditions; tendinopathies of achilles, gluteals, proximal hamstring, patella, adductor and distal biceps; golfer's and tennis elbow and plantar fasciopathy.

How long does the treatment session last?

This takes between 10 and 20 minutes to deliver and usually needs 3 to 5 sessions to be successful. Sessions should be weekly and no more than 2 weeks apart.

Is the shockwave treatment painful?

It is common to have some discomfort during the application of the ESWT. The treatment is delivered according to patient response, if a patient is unable to tolerate the pain levels the settings will be adjusted to reduce the discomfort. A mild ache may occur later that day but should pass after a day. Simple analgesia can be taken after treatment if required.

What are the criteria for referral for ESWT?

To be eligible for ESWT patients must have an ongoing tendinopathy for a minimum of 3 months, is struggling to progress with physiotherapy as a stand-alone treatment and have none of the contraindications below.

Are there any Contraindications or Precautions to be aware off?

Contraindications

- Pregnancy
- Over lung tissue
- Cardiac pacemaker
- Has had a Cortico-Steroid injection in the area in past 3 months
- Over or near bone growth centers until bone growth is complete
- Malignancy known to be present in or near the treatment area
- Treatment site has open wounds, skin rashes, swollen, inflamed, or infected areas
- Over ischaemic tissues in individuals with vascular disease
- Active infection at the treatment site to avoid the risk of spreading
- History of latex allergy or allergy to coupling gel
- Under 18 years of age
- Unstable INR on warfarin or under 3.0
- Taking DOACs (rivaroxaban, apixaban, edoxaban, dabigatran)

There may be circumstances where the therapist will discuss if ESWT is appropriate for you considering the below precautions

- 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
- Ensure patient has stopped use of NSAID's for a minimum of 8 hours before commencing ESWT. Ideally with hold NSAID's for at least 48 hours post treatment.

What to do before the treatment / How do I prepare for the treatment

You will need to be available for the full course of treatment over several weeks. You should not take any non-steroidal anti-inflammatory drugs (NSAIDs) such as Ibuprofen, for 8 hours before and ideally not for 48 hours after your treatment. If you are unsure if any of your medicines contain NSAIDs then please check with your doctor, nurse or pharmacist. Wear comfortable clothing that can allow easy access to the area.

Who will perform the procedure?

Your ESWT will be carried out by a physiotherapist, podiatrist or rehabilitation assistant, whom has undertaken special training to carry out the procedure.

What to do following the treatment?

There are no restrictions after the treatment session - you may continue with your normal activities. You may use simple painkillers if still in pain. Do not use anti-inflammatory medication such as Ibuprofen/Voltarol or use ice on the treated area as both will affect the body's inflammatory and healing process stimulated by the shockwave treatment.

Pain relief may be felt immediately but long term effects are normally seen after 3 months.

Potential side effects following treatment

- Bruising
- Pain
- Local swelling
- Skin reddening
- Numbness or altered sensation
- Skin "breaking"
- Tendon / fascia rupture

These side effects should resolve within the week before your next treatment. There is only a small risk of tendon rupture or ligament rupture and damage to the soft tissue.

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 session to have a long-term impact

Further Information:

If you require any further information regarding our shockwave service, please discuss this with your clinician

Further sources of information

The National Institute for Health and Care Excellence (NICE) has produced recommendations for patients on ESWT for Achilles tendinopathy and plantar heel pain:

<https://www.nice.org.uk/guidance/ipg571/resources/extracorporeal-shockwave-therapy-for-achilles-tendinopathy-pdf-3541876757701>

<https://www.nice.org.uk/guidance/ipg311/resources/treating-chronic-plantar-fasciitis-using-shockwave-therapy-pdf-312696253>

Important information

This patient information is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Web Address

<http://www.cht.nhs.uk/services/clinical-services/physiotherapy-outpatients/patient-care-information/>

QR Code

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Physiotherapy Department
Huddersfield Royal Infirmary
Telephone No: 01484 342434

MSK Physiotherapy Admin Office
Telephone No: 01484 905380

Podiatry Services
Broad Street Plaza
Telephone No: 01422 261313

www.cht.nhs.uk

If you would like this information in another format or language contact the above.

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