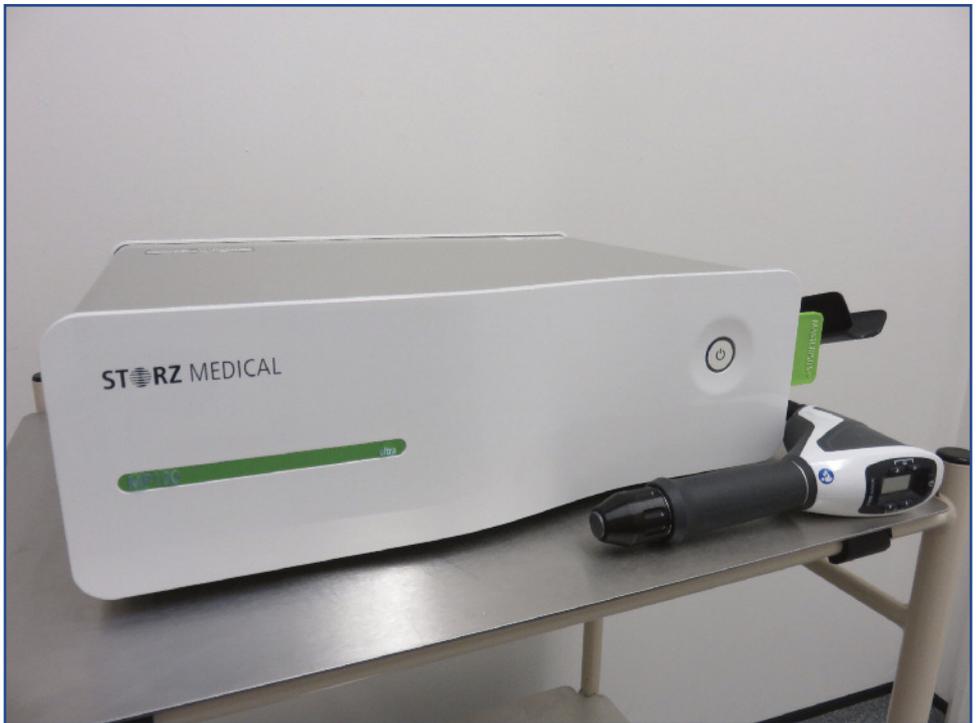




A patient's guide to

Radial Extracorporeal Shockwave Therapy (ESWT)

The Foot & Ankle Unit at the Royal National Orthopaedic Hospital is made up of a multi-disciplinary team. The team consists of four specialist orthopaedic foot and ankle consultant surgeons (Mr Singh, Mr Cullen, Mr Goldberg & Mr Welck) and also includes specialist doctors in training, a physician's assistant, clinical nurse specialists, specialist foot and ankle physiotherapist, orthotists and physiotherapists.



What is Radial Extracorporeal Shockwave Therapy (ESWT)?

Radial Extracorporeal Shockwave Therapy (abbreviated in this leaflet to ESWT) is a treatment which involves shockwaves being passed through the skin to the affected area using a special device. Extracorporeal means outside the body. The shockwaves are mechanical, not electrical, and are low energy sound waves that can be heard.

A course of ESWT treatment normally requires one treatment session a week for 3 consecutive weeks. This number may be increased or decreased depending on the response to the treatment. Treatments should not be more than 2 weeks apart. A follow up appointment in clinic is arranged for approximately 3 months after the date of the final shockwave session to monitor the response.

How does Radial Extracorporeal Shockwave Therapy work?

It is still not known exactly how it works, but it is thought that the 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. It is also thought that the shockwaves can break down calcifications (calcium deposits). The shockwaves overstimulate the nerves which can reduce sensitivity and pain.

Who may benefit from Radial Extracorporeal Shockwave Therapy treatment?

ESWT may be offered to patients with Achilles Tendinopathy or Plantar Fasciitis who have had symptoms for at least 3-6 months and have not responded to conservative treatments, such as physiotherapy, rest, ice therapy, orthotics, painkillers and steroid injection.

What will happen on the day of Radial Extracorporeal Shockwave Therapy treatment?

The actual delivery of ESWT takes up to approximately five minutes, but you will be assessed before the treatment to ensure that is appropriate for you, and you may also be assessed following it to review its effects. Depending on the area to be treated and your comfort in different positions, you will normally be asked to either lie on your tummy, or sit up for the delivery of the ESWT treatment.

A contact gel is normally applied before administering the ESWT treatment, and the treatment involves a probe being placed on the affected area.

You will normally be referred for physiotherapy following your final ESWT session.



Is the Radial Extracorporeal Shockwave Therapy treatment painful?

Sometimes the treatment is a bit painful, but most people can normally tolerate this. If you cannot, please let your practitioner know, as the dose can be amended to ensure it is well tolerated.

What can I expect after the Radial Extracorporeal Shockwave Therapy treatment?

You will normally be able to continue your usual activities following the ESWT treatment. However, do not do anything you would not normally do. We advise you to avoid strenuous, pain-provoking activity, high impact exercise or activities that stress the affected / treated area for 48 hours following the ESWT treatment.

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.

Even if you have no pain we strongly recommend that you refrain from intensive activities that stress the affected / treated area for 48 hours after each treatment.

Please see relevant section in this leaflet for information on other possible risks and side effects.

What shall I do if I am in pain after the Radial Extracorporeal Shockwave Therapy 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. If possible try not to use anti-inflammatory medication (such as Ibuprofen or Naproxen) or ice on the treated area as this can interfere with the body's self-healing abilities.

If you feel unsure about any symptoms or if you have any concerns following the ESWT treatment, please contact the Foot and Ankle Unit directly on 020 8909 5125 for advice during normal working hours. Otherwise, please contact your GP or attend your local Out of Hours or A&E department if it is more urgent. It is important that you are reviewed so that the effect of the ESWT treatment can be assessed and you can be provided with additional advice as appropriate. If you experience a sudden onset of pain to the area or any loss of function, please go to your nearest A&E department.

What are the benefits and risks of Radial Extracorporeal Shockwave Therapy?

ESWT is performed on an outpatient basis so no hospital stay is required. It is non-invasive, which means there is no cutting of tissues or skin, and is delivered from outside the body so therefore does not have many of the risks associated with surgery. It is applied without medication, and reported side effects are minimal. From available evidence to date in some studies ESWT has been shown to be an effective treatment.

The National Institute for Health and Care Excellence (NICE) has deemed this procedure to be safe, although there are some uncertainties about how well it works. We monitor every patient before and after treatment to discover how successful the outcome is. For the information from NICE on the procedure, please see the links towards the end of this leaflet. This also includes links to the NICE patient information leaflets.

Possible side effects include increased pain, bruising, redness, swelling, numbness, tingling and skin irritation. The majority of these should resolve within a couple of days, and normally within a week before the next treatment. In rare cases they can persist over a longer period of time. There is a small risk of tendon rupture or plantar fascia rupture and damage to the soft tissue.

Radial Extracorporeal Shockwave Therapy is not appropriate for everyone.

If you have a condition from the following list you are not allowed to have this treatment:

- Steroid injection into the area to be treated within the last 6 weeks
- Haemophilia / Clotting disorder / Risk of haemorrhage
- Taking Anti-coagulant medication, eg. Warfarin or Rivaroxaban
- Cardiac pacemaker or other cardiac device
- Unstable heart condition
- Cancer
- Pregnant / trying to conceive
- 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
- Osteogenesis Imperfecta
- Powered implant

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

- Taking anti-platelet medication, eg. Aspirin, Clopidogrel
- Fracture near the treatment area
- 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
- Decreased sensation

These will be discussed with you by your healthcare professional when the treatment is offered.

Are there any alternatives?

ESWT is a treatment option if conservative treatments such as physiotherapy, rest, orthotics, ice therapy, painkillers and steroid injection have already been tried. Sometimes an operation may be available depending on your condition. This can be discussed with a member of the team.

Further information

NICE Extracorporeal shockwave therapy for refractory plantar fasciitis 2009

www.nice.org.uk/guidance/ipg311

NICE Plantar Fasciitis ESWT Patient Information leaflet

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

NICE Extracorporeal shockwave therapy for Achilles Tendinopathy

www.nice.org.uk/guidance/ipg571

NICE Achilles Tendinopathy ESWT Patient Information leaflet

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

Please contact the Foot and Ankle unit for hard copies of the patient information leaflets from NICE if you do not have access to the internet.

If you would like this leaflet translated into another language/large print, please contact the Quality Team on 020 8909 5439.

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