

Extracorporeal Shockwave Therapy or ESWT



Extra-corporeal shock wave therapy (ESWT) is an alternative therapy for many bone and soft tissue disorders. In the foot and ankle, it is most commonly used for treating Achilles tendinopathy and plantar fasciitis.

What is it?

Extra-corporeal means “outside the body”, shock wave therapy refers to the exact nature of the treatment. A shock wave is generated by pressure waves inside a probe which is held next to the skin/part of the body. The shock wave sends energy to the part of the body which is being treated. This energy is thought to cause minor damage to the area which stimulates a healing response. This in turns helps relieve pain and repair the damaged tissues.

How does it work?

The generation of the shock wave is through a very focused impulse that targets the painful area. On a cellular level shock wave therapy has been shown in studies to reduce the quantity of nerve fibres that transmit painful impulses causing a reduction in pain sensation. It can also lead to an increase in tissue healing factors such as “growth factor” and increase the formation of new blood vessels which may contribute to promote healing in the degenerate tissues. The mechanism of shock wave therapy and how it works is being continually understood.

What conditions can be treated with shock wave therapy?

The main conditions that are treated with shock wave therapy in foot and ankle surgery include Achilles pain or tendinopathy and heel pain or plantar fasciitis.

How is the treatment delivered?

The therapy is administered in the out-patient clinic. No anaesthetic is required because the shock wave impulses that are delivered are usually quite low-energy. The area of the pain is exposed whilst the patient is lying on a treatment bed and a small amount of gel is applied

to the skin. This gel helps transmit the impulses to the painful area deep to the skin. The machine is then switched on and the “shock wave gun” is pressed lightly onto the skin to deliver the rapid impulses.

Is it painful?

In the majority of cases the patient feels it to be uncomfortable rather than painful. There is no doubt that some discomfort will be experienced because the area being treated has been chronically painful. To ease any symptoms, pain-killers can be taken just before you treatment if necessary.

How long does the treatment take?

Each treatment session typically lasts between 10-15 minutes. The number of sessions for each patient does vary however the majority of conditions will have around 3 sessions repeated at weekly intervals.

How successful is it?

The evidence to support its use is growing in the medical literature, especially in Achilles tendinopathy. The current evidence reports success rates between 75-85% in alleviating pain. It is important to continue with other treatments (such as physiotherapy and exercises) during your shock wave treatment,

What are the risks?

The advantage of this treatment is that it is non-invasive. There is no risk of infection from wound complications. Because the shock wave gun is pressing on the skin, the area can be a little red and uncomfortable after the treatment, but usually settles down. In some severe cases it can cause a flare up of pain, swelling and bruising, which will eventually settle with time. This can be treated with pain killers before and after each session. Rarely can the treatment cause bruising around the area.

What if it doesn't work?

Shock wave therapy is usually offered if traditional methods, such as physiotherapy, have not been successful. If the routine non-operative treatment has not worked and then shock wave therapy has not worked then the next step in treatment could potentially be surgery. This can be discussed with your surgeon.