



# Shockwave Therapy

## An Advanced Soft Tissue Technique

If you are suffering from an injury, musculoskeletal condition or pain, you may have seen a doctor or physical therapist regarding this problem. They may have suggested a range of treatment options, with one of those being shockwave therapy. Extracorporeal shockwave therapy (or ESWT) was first used in clinical practice in the 1980s for treating urinary problems, often to break down urinary stones. Its success in this area soon led to it being used in orthopaedics, firstly in managing plantar fasciitis (heel and foot pain), and more recently extensively across the body.

Extracorporeal shockwave therapy may sound like something from a sci-fi movie but the reality is that it is a modern, non-invasive therapy designed to treat the causes of chronic pain without the need for injections, medication or surgery. 'Extracorporeal' means outside the body, and 'shockwave' means high energy sound/acoustic waves. It is commonly just referred to as shockwave therapy.

### HOW DOES IT WORK?

The treatment stimulates an inflammatory-like response in the tissue that is being treated. Inflammation is a normal physiological response to injury and is the primary building block for healing. The body then responds by increasing blood flow and metabolism, which brings nutrients and oxygen to the injured area, and so accelerates the body's own healing processes. Also, the shockwaves can break down fibrous tissue and areas of calcium deposits (calcifications). Studies have shown that the treatment is effective in around two-thirds of people, with some reporting as much as a 90% improvement in their pain and/or function. It has been proven to be so effective that most medical insurance companies will now cover the cost for shockwave treatments.

Shockwave therapy is also particularly good for managing and eliminating pain.

The sound waves (i) stimulate a metabolic reaction in the affected tissue, causing changes in stress fibres; (ii) create cavitation bubbles that break down calcium deposits; and (iii) induce a pain-relief mechanism that blocks pain messages.

### WOULD I BENEFIT?

Nearly anyone with pain originating from a soft tissue injury, new or old, may benefit from shockwave therapy, whether you are a competitive athlete or not. Shockwave therapy provides a safe, non-invasive treatment option for:

- plantar fasciitis and heel pain
- tennis elbow
- hip pain/tendinopathy
- calcific tendonitis of the shoulder
- rotator cuff tendinopathy
- knee patellar tendinopathy
- Achilles tendinopathy
- frozen/stiff shoulder
- whiplash
- headaches
- iliotibial band syndrome (ITBS)
- shin splints
- trigger points/fibromyalgia
- chronic muscle tension
- bursitis
- bone stress injury.

There is growing research into the use of shockwave therapy for treating chronic lower back and neck pain. If you have a condition that is not listed above, you may still benefit from shockwave therapy and it would be worth asking your local shockwave therapist about your options.

Shockwave therapy can reduce pain, promote healing and speed up recovery. It may significantly reduce possible post-operative complications, such as extended recovery period, nerve damage, tissue rupture and permanent scarring.

The treatment is deemed safe by medical authorities. Shockwave therapy has not been shown to have long-term side effects or damage. Some short-term

discomfort may be felt during the treatment and some patients may experience temporary soreness, tenderness or swelling for a few days following the procedure. Mild bruising, tingling or numbness over the area of treatment are also occasionally felt.

### HOW MANY SESSIONS WOULD I NEED?

The number of shockwave therapy sessions that you would need often varies depending on the severity and chronicity of the condition – in other words, how bad it is and how long you have had it. Generally, three to six treatments are required, which last for approximately 10–15 minutes, and are performed at weekly intervals. Many patients report that they start to feel a decrease in symptoms even after the first one or two treatment sessions. Following a treatment session, you can usually return to most regular activities almost immediately; however, for certain conditions the therapist might advise you to avoid heavy strenuous activities for a day or two.

The injured area will continue to heal for 6 to 18 weeks after the treatment sessions have finished, so you might have to wait for approximately 3 months after the last treatment session to see the full effect of the therapy.

It should be remembered that this type of therapy should not be used purely on its own. Your therapist may complement your rehabilitation with other treatment methods. It is essential to consider what caused the injury and to address any underlying training mistakes or a possible imbalance that could be corrected with exercise therapy. This will ensure optimal recovery and prevent the injury recurring. Find out more about shockwave therapy by contacting your local physical or manual therapist.



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