HOW EFFECTIVE IS RADIAL SHOCKWAVE THERAPY?

There are many studies demonstrating the positive benefits of Radial Pressure/Shockwave Therapy.

A study by Suputtitada et al suggests that radial Shockwave Therapy is a safe treatment method that can effectively reduce pain from trigger points and increase muscular elasticity.

- Suputtitada et al, 2022, Effects of repeated Injection of 1% Lidocaine vs Radial Extracorporeal Shock Wave Therapy for Treating Myofascial Trigger Points: A randomized controlled trial, Medicina, vol. 58(4).

Another study by Cortes-Perez et al found Shockwave Therapy to be more effective than corticosteroid injections in reducing foot pain, decreasing plantar fascia thickness and improving foot function in patients with plantar fasciitis.

- Cortez-Perez et al, 2024, Efficacy of extracorporeal shockwave therapy compared to corticosteroid injections, on pain, plantar fascia thickness, and foot function in patients with plantar fasciitis: A systematic review and meta-analysis, Clinical Rehabilitation, 38(8): 11023 – 1043.

A systematic review by Feeney suggests that Radial Pressure Wave Therapy is a safe and effective treatment option for treating mid-Achilles tendinopathy, by improving patient function and reducing pain. Even better outcomes are achieved when combining shockwave treatment with an eccentric loading exercise program.

- Feeney, KM, 2022 The Effectiveness of Extracorporeal Shockwave Therapy for Midportion Achilles Tendinopathy: A Systematic Review, Cureus, 14(7).

SMART HEALTH

Suite 4, Level 2, Archer Building
72 O'Connell Street
North Adelaide SA 5006
(08) 8293 1100

www.smarthealthtraining.com.au

Radial Pressure Wave

Shockwave Therapy

A non-invasive treatment using acoustic pressure waves to promote healing and relieve pain in chronic musculoskeletal conditions and injuries

SMART HEALTH

WHAT IS RADIAL PRESSURE WAVE THERAPY?

Radial Pressure Wave Therapy, also referred to as Shockwave Therapy (SWT), is a non-invasive treatment technique used to address various musculoskeletal conditions and injuries. Recovery from treatment is quick with minimal side effects and down-time.

Shockwave Therapy can be effective for chronic conditions that haven't responded to other treatments and may also help avoid more invasive procedures such as surgery.

MECHANISM OF ACTION

Radial Pressure Wave Therapy delivers high-energy acoustic sound waves through the skin to the injured area. These audible mechanical waves have the following effects on the body:

Pain Relief:

- Overwhelms C-fibres to inhibit release of Substance P, which is responsible for increasing pain signals
- Desensitises nerve endings, providing immediate pain relief

Promotion of healing response:

- Creation of controlled microscopic damage encourages the body to activate its own healing response
- Stimulation of blood circulation and metabolism in the affected area
- Stimulation of collagen production for:
  - repair of damaged muscle
  - tendon remodelling
  - decreased cartilage degradation

Treat inflammation:

- Reduces the release of Substance P, which inhibits neurogenic inflammation
- Mimics the action of anti-inflammatory drugs (NSAIDs) without side effects

Calcium Breakdown:

- SWT aids in breaking down calcium deposits within the tissues

Release of trigger points:

- SWT can help release muscle trigger points, reducing pain and tightness.

Shockwave Therapy is often used in combination with other treatments like physical therapy or exercise programs for optimal results. It offers a middle-ground option for patients who haven't responded to conservative treatments but aren't ready for more invasive procedures.

WHAT CONDITIONS CAN BE TREATED?

SWT can be used to treat a number of conditions, some of which include:

- Tendinopathy - Achilles, elbow, gluteal, rotator cuff
- Calcific tendinopathy
- Plantar fasciitis
- Greater trochanteric pain syndrome
- Shin Splints (medial tibial stress syndrome) and Osgood Slatters Disease
- Osteoarthritis
- Muscle trigger points
- Spasticity

Please talk to your treating Practitioner about the suitability of this treatment modality for your condition.

TREATMENT TECHNIQUE

During a session, the treatment area is identified through palpation and/or ultrasound assessment. Ultrasound gel is applied to the skin and a handheld device delivers the acoustic waves to the injured area. (Despite the name - there are no electric shocks delivered!)

Each session typically lasts 5-10 minutes, with about 2500-5000 shocks administered.

Most patients require a minimum of three to five weekly treatment sessions, though this may vary depending on the condition.

The treatment is expected to be uncomfortable, aiming for a pain score of about 6-8/10.
Lower energy treatments result in an analgesic response, while higher energy treatments stimulate healing and regeneration of tissue through a process called mechanotransduction.

SIDE EFFECTS OF TREATMENT

As treatment is minimally invasive, recovery from SWT is relatively quick, with minimal restrictions.
Most patients can return to normal activities within a day or two, though full healing and maximum benefits may take several weeks.

You may experience a temporary ache, swelling, tenderness and bruising from the treatment for about 24-48 hrs. Where necessary, your treating practitioner will discuss any specific post-treatment recovery protocols.