



SHOCKWAVE THERAPY

Injuries involving a tendon, often termed 'Tendinopathy' can come about in a matter of days and can often take many months to resolve.

Continual developments in research have allowed us to gain great confidence in a particular form of therapy that would speed up the healing process of tendons alongside other musculoskeletal conditions. SHOCKWAVE THERAPY is a very powerful adjunct to include as part of the management plan, especially when your injury has persisted beyond the timeframes in which you might have initially expected.



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SHOCKWAVE THERAPY
PATIENT GUIDE

WHAT IS SHOCKWAVE THERAPY?

- Shockwave fills the injured structure or area with more cells or 'building material'. This building material is loaded onto the building site (injury site) and then your 'workers' (progressive loading exercises) are going to influence how these new cells are distributed upon your injured structure.
- These radial pressure waves produce an artificial stimulation to the tendon to begin a cascade of positive events which speed up and enhance the process by which the tendon heals and adapts.
- You will be spending around 4 minutes per treatment but are receiving 4 and a half months of worth of therapeutic input.

WHAT DOES THE RESEARCH SAY?

- There is no other conservative orthopaedic treatment that has as many independently validated studies to support it as shockwave therapy with over 300 research papers coming out on it each year.
- There is an 82% chance your tendon will get better if you include shockwave therapy as part of your package.
- 4 sessions are required over 4 weeks to achieve your best results. Collagen and protein synthesis will continue to take place 90 days after your last treatment.

MECHANISM OF ACTION

- Increased blood vessel formation at the tendon-bone junction (Wang 2002, 2003)
- Stimulates vasodilation (increased blood flow)
- Breaks down calcifications (Peters 2004)
- Stimulation & proliferation of:
 - new tendon cells (tenocytes) (Chen 2004)
 - white blood cells to clear up cell debris and foreign materials (Rompe 98)
 - fibroblasts (cells in connective tissue that secrete collagen) (Klonchinski 2011)
- Increased protein synthesis (building new proteins in muscle & tendon) (Bosch 2007) Increased collagen synthesis (collagen comprises 80% of the tendon) (Waugh 2015)
- Mechanotransduction (process by which cells migrate to injury site) (Wang 2002) Stimulation of nociceptive C-fibres (pain fibres)- causing pain relief

WHAT TYPES OF CONDITIONINGS ARE TREATED?

- Musculoskeletal pathologies
 - Muscle strains and trigger points (localised tender or painful areas)
 - Tendinopathies
 - Plantar fasciopathy, achilles tendinopathy, golfer's/tennis elbow, patella tendinopathy, rotator cuff tendinopathy etc.
 - Osteoarthritis
- Neurological conditions

SIDE EFFECTS

- Transient pain
- Redness on skin surface
- Local swelling
- It is normal to feel some soreness for 2-3 days following treatment
- Any side effects experienced should be cleared after 5 days.

POST-TREATMENT CARE

- It is important to rest the area treated for 48 hours following treatment.
- Your physiotherapist will discuss the best times and days to schedule your sessions

