

ATHLETE'S EDGE

SPORTS MEDICINE EDUCATION AND INFORMATION FOR WATERLOO REGION

Shockwave Therapy

History

The technique to break up kidney stones with Focused Shockwave Therapy (FSWT) has been around for approximately 25 years. From this early use, FSWT and Radial Shockwave Therapy (RSWT) began being used for the treatment of musculoskeletal injuries. At WSM, we use RSWT to assist us in the treatment of some common injuries from which athletes and active individuals suffer.

What is it?

Radial Shockwave Therapy consists of a series of high energy percussions to the area being treated. The shockwave spreads outwards (radially) from the applicator head into the tissue to a depth of about 3.5cm. The shockwave is physical in nature, not electrical.

How Does it Work?

It is hypothesized that radial shockwave creates a controlled local tissue injury. In essence the micro-trauma created by RSWT creates an inflammatory response and leads to a cascade of healing to occur. This is believed to increase tissue growth factors within locally injured tissue which leads to neovascularization (new blood flow), speeding up the healing process.



What Does it Treat?

RSWT is primarily used to treat chronic connective tissue injuries such as:

- Plantar Fasciitis
- Jumpers Knee
- Achilles Tendinosis
- Calcific Rotator Cuff Tendinosis
- Tennis/Golfer's Elbow
- Trigger Points

However, any chronic tendon or fascia injury may be a candidate for shockwave treatment.

How many treatments are needed?

The typical number of treatments for an injury using shockwave is 3. These treatments are performed every 7 to 10 days. On occasion, 1 or 2 additional treatments are indicated.



How long does the treatment last and what does it feel like?

RSWT treatments will take only a few minutes to complete in most cases. Shockwave often is accompanied with a moderate amount of discomfort during treatment. Shockwave discomfort should not be unbearable, and hence, if the treatments are not within clients' comfort tolerance, they should inform their treating clinician.

Are there precautions or contraindications?

RSWT is not recommended for clients with bleeding disorders, suspected neuropathic lesions, nor should they have any malignancies or other neoplastic lesions. Shockwave is not used if a cortisone injection has been received in the previous 6 weeks. Shockwave is not recommended during pregnancy.

Precautions or contraindications should always be discussed with your treating clinician prior to receiving RSWT to ensure that it is safe to proceed with shockwave treatments.



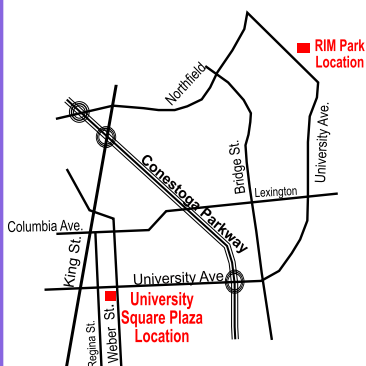
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Since 1986, over 75,000 active athletes and individuals have relied on the experience and expertise of the medical and therapy staff of WSM.

After Treatment

Following a treatment, the area that is shockwaved should not be treated with anti-inflammatory agents, such as ice, as this may alter the desired cascade of healing that is expected to occur. Interestingly, even though RSWT can be somewhat painful to receive, many patients report immediate decrease in pain in the days following initial treatment. However, it is also not uncommon to have some increase in discomfort for a few days after treatment.



What does the research tell us?

Calcification disappeared completely in 86% of shoulder calcific tendinitis and only partially in 8.8% in the control (non-RSWT) group. **Physical Therapy, 8(5), 2006**

Shockwave patients showed superior results to eccentric loading exercises for the treatment of insertion Achilles tendinosis. **Journal of Bone & Joint Surgery, 90(1), 2008**

Radial shock wave therapy significantly decreases pain and improves function and quality of life compared to placebo group in study of 245 patients with chronic plantar fasciitis. **Am. J Sports Med., 36(110), 2008**

