

Are There Side Effects or Risks?

ESWT has proven itself to be an extremely safe procedure. Other than the discomfort during the session, there are no long term side effects. Rarely, some individuals experience temporary increase in pain which may be reduced by icing or use of painkillers. Although ESWT may not be effective in some patients, it does not result in any worsening of a condition.

Unlike treatments such as cortisone injections, there is no restriction to the number of times the treatment can be carried out.

Despite its excellent safety record, ESWT is still regarded as a physician administered modality, as it requires the operator to have a certain level of knowledge, training and experience apply the treatment safely and appropriately. ESWT should not be used in areas of tumour, infection and in certain stages of pregnancy. Targeting of ESWT needs to be accurate, especially when close certain areas such as the lung, the spine and any large blood vessels, or complications could arise.

IN SUMMARY

Treatment by ESWT has the following advantages:

1. Totally non-invasive
2. Risk-Free
3. Quick outpatient procedure
4. Drug-Free
5. Precise targeting when used with ultrasound guidance
6. No long term risk or damage, even with repeated sessions.

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Sports Medicine International is a licensed Medical Clinic offering solutions in Sports and Exercise Medicine, including ultrasound-guided ESWT treatments for sports injuries.

A full assessment by our sports physician is recommended before any treatment.



Photo courtesy of Dornier MedTech GmbH.

Supported by:



Sports Medicine International uses the Dornier EPOS Ultra (ESWT) system.

Extracorporeal Shock Wave Therapy (ESWT)

*NON-SURGICAL Treatment of Sports
Injuries and Musculoskeletal Pain*



Extracorporeal Shock Wave Therapy (ESWT)

A non-invasive, needle-free, and drug-free solution for certain injuries

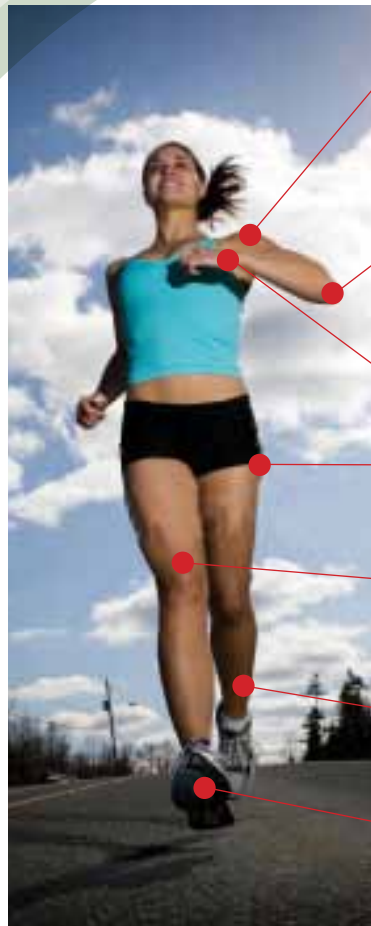
Originally employed as a method for treating kidney stones, ESWT has also proven itself effective in the treatment of certain musculoskeletal conditions over the last 2 decades. It is particularly favoured by active individuals as it is totally non-invasive and requires minimal or no down-time after treatment. It has been used effectively even in conditions which have gone on for years.

How Does It Work?

Shock waves are acoustic pressure waves with unique waveform characteristics – a very rapid rise to a high magnitude and a very rapid fall time, which may result in a temporary vacuum or “cavitation” in the tissues. These waves are generated in the ESWT device, and are focussed by an acoustic lens at the target area in the body. Research has shown that such waves have biological effects including:

1. Release of certain growth factors in the targeted tissues, which may lead to the formation of new vessels (“angiogenesis”) and other biological effects associated with tissue healing. This effect occurs over a period of several months and is responsible for facilitating regeneration and repair in certain chronically injured or degenerated tissues.
2. Effects on nerves carrying pain signals, which may result in pain reduction.
3. Interruption of “pain-spasm” cycles which occur in many chronic pain situations.

What Conditions Can Be Treated By ESWT?



Shoulder
Chronic Tendinosis and/or Calcification of the Rotator Cuff

Elbow
Tennis Elbow, Golfer’s Elbow

Wrist / Hand
Tendinitis

Hip
Tendinitis, Ischial Bursitis

Knee
“Jumper’s Knee”, Iliotibial Band Syndrome, Tendinitis

Shin
Shin Splints, Stress Fractures.

Ankle / Foot
Achilles Tendonitis, “Heel Spurs” (Plantar Fasciitis)

In addition, ESWT has also been used to assist bone healing in certain situations of non-union or delayed union of fractures. More recently, it has been used also in myofascial trigger point treatment for pain management.

How Is The Treatment Session Carried Out?

An ESWT session is usually carried out as an outpatient procedure, taking about 20 minutes per site. The injured structure is first identified, and then precisely targeted by the ESWT device by means of real-time ultrasound guidance. Shock-waves are then delivered in rapid succession, ramping up from low levels to therapeutic levels. In most cases, over 2000 shocks will be used per session.



Ultrasound-guided treatment for Shoulder Tendinosis

Usually, no local anaesthetic is given as some studies have indicated that this may be associated with poorer success rates. Treatment may be uncomfortable or slightly painful (usually a “hammering” feeling). Discomfort or pain is temporary and generally tolerable.

How Many Sessions Are Needed?

For most conditions, 1 to 3 sessions would be recommended. The interval between sessions may vary from 4 days to several weeks.



Ultrasound-guided ESWT Treatment for Plantar Fasciitis