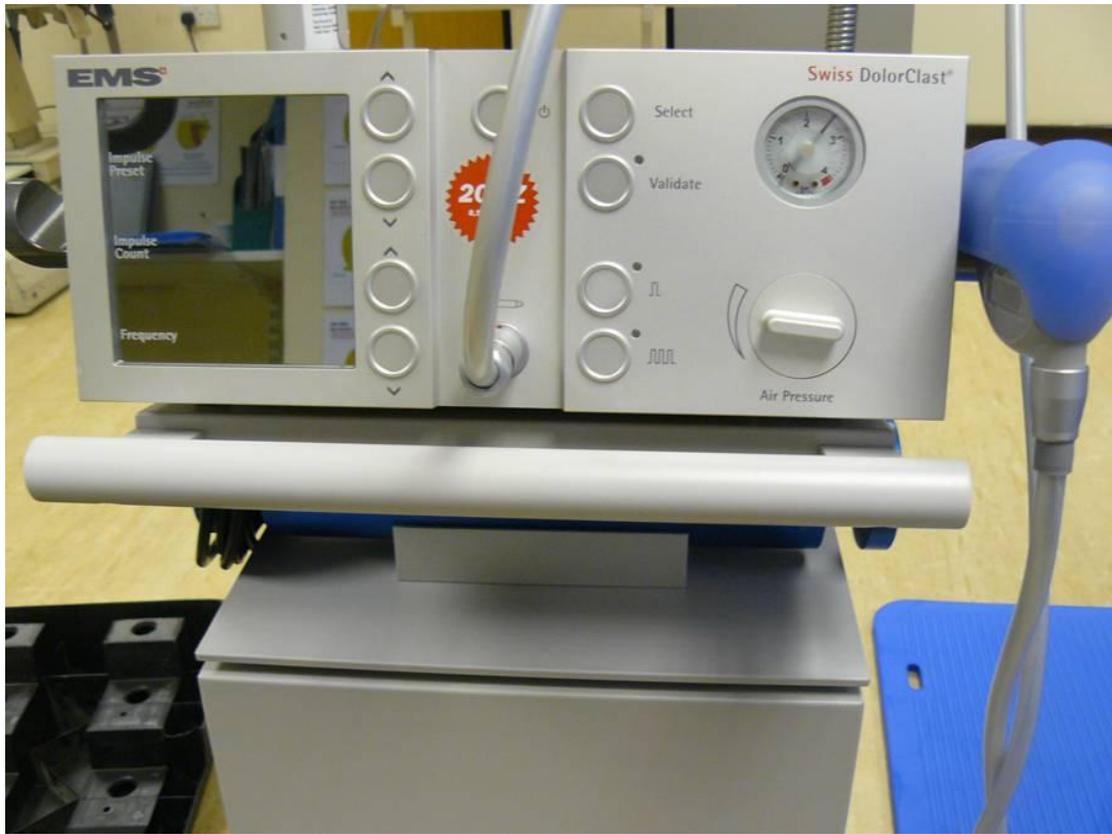


Extracorporeal Shock wave therapy



Plantar fasciitis is the most common cause of heel pain and accounts for about 15% of all foot symptoms requiring treatment. The course of the disease is typically self-limiting, and up to 90% of patients are successfully treated with nonsurgical measures including rest, ice application, stretching exercises, NSAID, night splints and insoles. Furthermore, it is also known that a period of time of 6 months to one year is required to effectively treat plantar fasciitis. Nevertheless, the remaining patients enter a state of **recalcitrant painful heel syndrome**. Surgical treatment of chronic plantar fasciitis is not terribly effective. Furthermore, one of the most concerning aspects of surgical treatment of plantar fasciitis is that there are potentially serious complications.

Because of this, orthopaedic surgeons are seeking more effective treatment for these patients who do not seem to improve with more standard treatments.

Extracorporeal shock wave therapy, or ESWT, has emerged as a possible treatment option for patients with chronic plantar fasciitis. ESWT delivers focused shock waves to the area of application. Shock wave therapy is thought to work by inducing micro trauma to the tissue that is affected by plantar fasciitis. This micro trauma initiates a healing response by the body. This healing response causes blood vessel formation and increased delivery of nutrients to the affected area. The micro trauma is thought to stimulate a repair process and relieve the symptoms of plantar fasciitis.



First reported in 1996, several investigators have published successful results when using shock waves to treat plantar fasciitis. The FDA subsequently approved the use of shock waves for the treatment of plantar fasciitis in 2000.

Since that time, numerous studies have investigated the use of shock wave treatment for plantar Fasciitis. A randomised, multi centre study with eight participating centres in Europe and USA published its findings in American Journal of Sports Medicine in 2008. There were 245 patients with chronic plantar fasciitis in this study. Radial extracorporeal shock wave therapy proved significantly superior to placebo with success rate of 61% with ESWT at 12 weeks. Superiority of ESWT was even more pronounced at 12 months.

No side effects were observed.

Current recommendations for ESWT are that it is a safe treatment for patients who have failed conservative measures and may require surgical intervention.

It is a good option to consider ESWT prior to surgical intervention. Potential side-effects of ESWT are minimal. Therefore, in patients who have chronic plantar fasciitis, and who have failed a minimum six month trial of standard treatments, shock wave therapy is a safe treatment alternative to surgery. The

other advantages of this treatment are:

It can be done in outpatients & anaesthesia is not required. Long recovery times are avoided and participants are not required to refrain from any activity

during the course of the treatment.

Nice has approved the use of extracorporeal shock wave therapy for **refractory Plantar Fasciitis, refractory Achilles tendonitis and refractory tennis elbow**. In addition there are several studies reporting that ESWT is effective for the treatment of **delayed union** or **non union**.