

## Extracorporeal Shockwave Therapy (ESWT) for Orthopaedic Indications

<b>Date</b>	November 2017	<b>Date of Last Review:</b>	New Policy
<p><b>Policy:</b> Referral for extracorporeal shockwave therapy (ESWT) for orthopaedic indications is considered a low priority and will only be commissioned by the NHS on an individual case basis. Clinicians need to apply to the exceptional cases panel for approval of funding. (Funding request form available <a href="#">here</a>).</p> <p>Non-orthopaedic indications, for example the destruction of urinary tract stones, are not included in these policy restrictions.</p> <p><b>It is the responsibility of referring and treating clinicians to ensure compliance with this policy.</b></p>			

<b>Definition:</b>	Extracorporeal shockwave therapy involves the use of shock waves that are passed through the skin to the affected area <sup>1</sup> . The mechanism for the action of ESWT is not currently clear, but it is considered to help in breaking up calculus deposits or to help in promoting tissue healing <sup>1</sup> . As well as in the fragmentation of kidney, ureter and gallbladder stones, ESWT has been used in the treatment of conditions such as tendonitis of the shoulder, elbow and ankle, bone necrosis, osteoarthritis and in the treatment of erectile dysfunction.
<b>Estimated numbers of people affected:</b>	In 2016/17, ESWT was used for orthopaedic indications in 230 patients in Cambridgeshire and Peterborough. The projected rate for orthopaedic indications in 2017/18 is 371.
<b>Evidence and rationale:</b>	There are a large number of sham-controlled RCTs of ESWT for different indications, but there is uncertainty around the quality of these trials. Because outcomes are subjective (patient-rated pain or joint score), any failure of patient blinding becomes an important source of bias and, for the majority of orthopaedic indications, NICE state that the evidence is 'inconsistent' <sup>2-4</sup> , 'does not appear adequate' <sup>5</sup> or is 'limited in quality and quantity' <sup>6</sup> .  The greatest effect size is seen for shoulder score in patients with calcific tendinopathy <sup>7</sup> , and NICE Interventional Procedure Guidance 21 states that the evidence is 'adequate' to support its use <sup>8</sup> . However, greater benefit has been shown for ultrasound-guided needling compared with ESWT and this is likely to be a more effective option <sup>9</sup> .
<b>Priority:</b>	Lower clinical priority.

### GLOSSARY:

<b>Bone necrosis:</b>	Death of bone tissue due to a lack of blood supply.
<b>Extracorporeal:</b>	Procedure performed outside of the body.
<b>Osteoarthritis:</b>	Breakdown of cartilage in one or more joints causing pain and stiffness.
<b>Tendonitis:</b>	Inflammation of the tendon.

## REFERENCES:

1. NHS Choices. <http://www.nhs.uk/Conditions/Tendonitis/Pages/Treatment.aspx>
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3. National Institute for Health and Care Excellence Interventional Procedure Guidance 313. Refractory tennis elbow (2009).
4. National Institute for Health and Care Excellence Interventional Procedure Guidance 571. Achilles tendinopathy (2016).
5. National Institute for Health and Care Excellence Interventional Procedure Guidance 29. Peyronie's disease (2003).
6. National Institute for Health and Care Excellence Interventional Procedure Guidance 376. Refractory greater trochanteric pain syndrome (2011).
7. Bannuru R R, Flavin N E, Vaysbrot E, Harvey W, McAlindon T. High-energy extracorporeal shock-wave therapy for treating chronic calcific tendinitis of the shoulder: a systematic review. *Ann Intern Med.* 2014 Apr 15;160(8):542-9. doi: 10.7326/M13-1982.
8. National Institute for Health and Care Excellence Interventional Procedure Guidance 21. Calcific tendonitis (tendinopathy) of the shoulder (2003).
9. Kim Y S, Lee H J, Kim Y V, Kong C G. Which method is more effective in treatment of calcific tendinitis in the shoulder? Prospective randomized comparison between ultrasound-guided needling and extracorporeal shock wave therapy. *J Shoulder Elbow Surg.* 2014 Nov;23(11):1640-6. doi: 10.1016/j.jse.2014.06.036.