



# **Consensus statement**

## **Recommendations for the use of extracorporeal shockwave technology in medical indications**

### **Introduction**

Building on the experience gained over the past 15 years, the scientific board of the ISMST and experts from National Shockwave Societies around the world, have put together a set of recommendations for the use of shockwave therapy.

Purposefully the experts did not apply Cochrane standards for the assessment of the level of evidence. The most recent meta-analyses published by Cochrane<sup>1</sup> shows "platinum evidence" that shockwave treatment has little or no effect at all. But Cochrane researchers simply cannot ignore the results of several well-designed studies from the past which failed to show any efficacy of ESWT for various disorders. By analysing those studies it could be shown that inclusion criteria, treatment parameters or other conditions are afflicted with systemic biases which turn the results of the studies completely into the opposite. Therefore, as long as the situation is so incoherent the idea of a ranking due to the level of evidence is not reasonable or feasible.

### **Prerequisites**

In order to prevent improper treatment the following are prerequisites for administering the technology:

In addition to a clinical examination, radiological imaging, neurological and/or laboratory-diagnostic tests may be necessary to corroborate the diagnosis. Only a qualified (certified by National or International Societies) physician may use shockwave therapy to treat pathologies, which have been determined by diagnostic testing.

For the treatment of bone ailments, a high-energy, focused shockwave with positioning technology is to be used. To treat superficial soft tissue conditions, devices with or without focusing technology may be utilized; close attention must

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#### **International Society for Medical Shockwave Treatment – ISMST**

President Prof. Sergio Russo – 1. Vicepresident: Dr. Roland Hamisultane– 2. Vicepresident: Dr. Wolfgang Schaden  
ISMST office: Ebelsberger Schlossweg 5, A-4030 Linz, Austria, Europe – [shockwave@ismst.com](mailto:shockwave@ismst.com), [www.ismst.com](http://www.ismst.com)

be paid to the depth of penetration of the shockwave source when treating deep tissue structures.

### **Approved standard indications**

#### **Chronic tendinopathies:**

Plantar fasciitis with or without heel spur  
Achilles tendon  
Radial epicondylopathy (tennis elbow)  
Rotator cuff with or without calcification  
Patella tendon  
Greater trochanteric pain syndrome

#### **Impaired bone healing function:**

Delayed bone healing  
Stress fractures  
Early stage of avascular bone necrosis (native X-ray without pathology)  
Early stage osteochondritis dissecans (OD) post-skeletal maturity

#### **Urology:**

Lithotripsy (extracorporeal and endocorporeal)

### **Common empirically-tested clinical uses**

#### **Tendinopathy:**

Ulnar epicondylopathy  
Adductor syndrome  
Pes anserinus syndrome  
Peroneal tendon syndrome

#### **Muscular pathologies:**

Myofascial syndrome (fibromyalgia excluded)  
Injury without discontinuity

#### **Impaired wound healing**

#### **Burn injuries**

#### **Salivary stones**

### **Exceptional indications/expert indications**

#### **Spasticity**

#### **Early stage osteochondritis dissecans (OD) pre-skeletal maturity**

**Apophysitis (Osgood Schlatter disease)**

**Peyronie's disease (IPP)**

**Uses under experimental conditions**

**Myocardial ischemia (extracorporeal/endocorporeal)**

**Peripheral nerve lesions**

**Abacterial prostatitis**

**Periodontal disease**

**Osteoarthritis**

**The authors group of the DIGEST**

Vinzenz Auersperg  
Matthias Buch  
Ludger Gerdesmeyer  
Markus Gleitz  
Rolf Rädcl  
Jan-Dirk Rompe  
Wolfgang Schaden  
Richard Thiele  
Andreas Waubke  
Georg Wille

**The ISMST Managing Board**

Roland Hamisultane  
Robert Gordon  
Sergio Russo  
Heinz Kuderna  
Vinzenz Auersperg  
Wolfgang Schaden  
Richard Thiele  
Richard Coombs

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Juan les Pins, June 5<sup>th</sup>, 2008

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<sup>i</sup> Buchbinder R, Green SE, Youd JM, Assendelft WJJ, Barnsley L, Smidt N. Shock wave therapy for lateral elbow pain. The Cochrane Database of Systematic Reviews 2005, Issue 4. Art. No.: CD003524. DOI: 10.1002/14651858.CD003524.pub2.