



# **Consensus Statement on ESWT Indications and Contraindications**

The members of the managing board, advisory board and senators of the International Society for Medical Shockwave Treatment (ISMST), have decided at the managing board meeting in Naples, Italy held on October 13<sup>th</sup>, 2016, to publish a set of Clinical Guidelines for using Therapeutic Shockwaves in Clinical Practice. The Guidelines were assembled based on an assessment of the current published scientific and clinical information and accepted approaches to treatment.

The Guidelines are meant to aid the clinician in the use of shockwave medicine. In particular, the Guidelines are intended to clarify the indications and contraindications to treatment.

The Guidelines are not intended to be a fixed protocol, as some patients may require more or less treatment depending on the clinical scenario. Patient care and treatment should always be based on a clinician's independent medical judgment, given the individual patient's clinical circumstances.

On behalf of the ISMST managing board,



Dr. José Eid  
General Secretary of the ISMST

DRAFT

## A. INDICATIONS

### 1. Approved standard indications

- 1.1. Chronic Tendinopathies
  - 1.1.1. Calcifying tendinopathy of the shoulder
  - 1.1.2. Epicondylopathy of the lateral humeral epicondyle (tennis elbow)
  - 1.1.3. Greater trochanter pain syndrome
  - 1.1.4. Patellar tendinopathy
  - 1.1.5. Achilles tendinopathy
  - 1.1.6. Plantar fasciitis, with or without heel spur
- 1.2. Bone Pathologies
  - 1.2.1. Delayed bone healing
  - 1.2.2. Bone Non-Union (pseudoarthrosis)
  - 1.2.3. Stress fracture
  - 1.2.4. Avascular bone necrosis with no articular derangement
  - 1.2.5. Osteochondritis Dissecans (OCD) without articular derangement
- 1.3. Skin Pathologies
  - 1.3.1. Delayed or non wound healing
  - 1.3.2. Skin ulcers
  - 1.3.3. Non circumferential burn wounds

### 2. Common empirically-tested clinical uses

- 2.1. Tendinopathies
  - 2.1.1. Rotator cuff tendinopathy without calcification
  - 2.1.2. Medial epicondylopathy of the elbow
  - 2.1.3. Adductor tendinopathy syndrome
  - 2.1.4. Pes-Anserinus tendinopathy syndrome
  - 2.1.5. Peroneal tendinopathy
  - 2.1.6. Foot and ankle tendinopathies
- 2.2. Bone Pathologies
  - 2.2.1. Bone marrow edema
  - 2.2.2. Osgood Schlatter Disease: apophysitis of the anterior tibial tubercle
  - 2.2.3. Tibial stress syndrome (shin splint)
- 2.3. Skin Pathologies
  - 2.3.1. Cellulite
- 2.4. Muscle Pathologies
  - 2.4.1. Myofascial Syndrome
  - 2.4.2. Muscle sprain without discontinuity

### **3. Exceptional indications – expert indications**

#### 3.1. Musculoskeletal pathologies

- 3.1.1. Osteoarthritis
- 3.1.2. Dupuytren disease
- 3.1.3. Plantar fibromatosis (Ledderhose disease)
- 3.1.4. De Quervain disease
- 3.1.5. Trigger finger

#### 3.2. Neurological pathologies

- 3.2.1. Spasticity
- 3.2.2. Polyneuropathy
- 3.2.3. Carpal Tunnel Syndrome

#### 3.3. Urologic pathologies

- 3.3.1. Pelvic chronic pain syndrome (nonbacterial prostatitis)
- 3.3.2. Erectile dysfunction
- 3.3.3. Peyronie disease

#### 3.4. Others

- 3.4.1. Lymphedema

### **4. Experimental Indications**

- 4.1. Heart Muscle Ischemia
- 4.2. Peripheral nerve lesions
- 4.3. Pathologies of the spinal cord and brain
- 4.4. Skin calcinosis
- 4.5. Periodontal disease
- 4.6. Jawbone pathologies
- 4.7. Complex Regional Pain Syndrome (CRPS)
- 4.8. Osteoporosis

## **B. CONTRAINDICATIONS**

### **1. Radial and focused waves with low energy**

- 1.1. Malignant tumor in the treatment area (not as underlying disease)
- 1.2. Fetus in the treatment area

### **2. High energy focused waves**

- 1.3. Lung tissue in the treatment area
- 1.4. Malignant tumor in the treatment area (not as underlying disease)
- 1.5. Epiphyseal plate in the treatment area
- 1.6. Brain or Spine in the treatment area

- 1.7. Severe coagulopathy
- 1.8. Fetus in the treatment area

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