

Medical Coverage Policy



**Blue Cross
Blue Shield**
of Rhode Island

Extracorporeal Shock Wave Therapy

Device/Equipment Drug Medical Surgery Test Other

Effective Date:	7/1/2001	Policy Last Updated:	11/15/2011
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Prospective review is recommended/required. Please check the member agreement for preauthorization guidelines.

Prospective review is not required.

Description:

Musculoskeletal Conditions:

Extracorporeal shock wave therapy (ESWT) is offered as a non-surgical treatment option for chronic plantar fasciitis and for other musculoskeletal conditions. ESWT uses technology similar to lithotripsy in an attempt to relieve musculoskeletal symptoms. The mechanism by which ESWT achieves a therapeutic intervention in orthopedic conditions is not completely understood, but it is believed that the direct and indirect effects of the shock waves may damage cell membranes and, thus, nociceptors cannot build up a potential to transmit pain signals. Applying shock waves to the area of pain may initiate the healing process by sending pulses of pressure waves through the skin and re-injuring the area to promote healing. The cavitation from the shock wave creates permanent micro-bubbles in the scar tissue which ultimately leads to a new blood supply that can heal the initial injury.

Both high-dose and low-dose protocols have been investigated. A high-dose protocol consists of a single treatment of high energy shock waves (1300mJ/mm²). This painful procedure requires anesthesia. A low-dose protocol consists of multiple treatments, spaced one week to one month apart, in which a lower dose of shock waves is applied. This protocol does not require anesthesia. The FDA-labeled indication for the OssaTron® and Epos™ Ultra device specifically describes a high-dose protocol, while the labeled indication for the SONOCUR® device describes a low-dose protocol.

Wound Healing:

Preliminary clinical trials have shown that the technology for ESWT significantly enhances and accelerates the healing of complex soft tissue wounds in comparison to standard methods of treatment. ESWT induces a reproducible biological response in tissue by releasing wound growth factors, stimulating stem cells and producing an antibacterial effect on biofilms (clusters of bacteria with protective coating). As a result, ESWT appears to facilitate vascular in-growth, re-epithelialization and wound closure. Further clinical trials are required to provide clinical evidence on whether ESWT may play a role in healing problem wounds.

Medical Criteria:

Not applicable.

Policy:

Extracorporeal shock wave therapy (ESWT) is considered **not medically necessary** for the following indications (not an all inclusive list) because there is insufficient evidence of effectiveness of ESWT for these indications in the medical literature: as a treatment of musculoskeletal conditions and for wound healing including, but not limited to:

- plantar fasciitis;
- tendinopathies, including tendinitis of the shoulder, tendinitis of the elbow (epicondylitis, tennis elbow);
- stress fractures, delayed union and nonunion of fractures;
- fixation of loosened cemented orthopedic prostheses;
- avascular necrosis of the femoral head;
- soft tissue repair;
- or any other musculoskeletal conditions not listed above.

Extracorporeal shock wave therapy is considered **not medically necessary** due to lack of peer-reviewed medical literature regarding the long-term net health outcomes. The results of studies do not give a consistent picture concerning the effect that ESWT has on health outcomes for musculoskeletal conditions including plantar fasciitis and for wound healing.

Coverage:

Benefits may vary between groups/contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for the applicable "services not medically necessary" section.

Coding:

The following CPT codes are considered not medically necessary:

28890

0019T

0101T

0102T

0299T Effective 01/01/2012

0300T Effective 01/01/2012

Related Topics:

Epos™ Ultra

ESWT

Extracorporeal Shock Wave Treatment, Musculoskeletal Conditions

Orthotripsy

Orbasone™

Orthospec™

OssaTron Device®

Plantar Fasciitis, Extracorporeal Shock Wave Treatment

SONOCUR®

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Provider Update, Sept 2009

Provider Update, November 2010

Provider Update, January 2012

References:

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