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Pain free living and peak performance

## ELECTRICAL STIMULATION

Wikipedia reference

The use of electrotherapy has been researched and accepted in the field of rehabilitation[12] (electrical muscle stimulation). The American Physical Therapy Association acknowledges the use of Electrotherapy for:[13]

### 1. Pain management

Improves range of joint movement

### 2. Treatment of neuromuscular dysfunction

Improvement of strength

Improvement of motor control

Retards muscle atrophy

Improvement of local blood flow

### 3. Improves range of joint mobility

Induces repeated stretching of contracted, shortened soft tissues

### 4. Tissue repair

Enhances microcirculation and protein synthesis to heal wounds

Increased blood flow to the injured tissues increases macrophages to clean up debris

Restores integrity of connective and dermal tissues

### 5. Acute and chronic edema

Accelerates absorption rate

Affects blood vessel permeability

Increases mobility of proteins, blood cells and lymphatic flow

### 6. Peripheral blood flow

Induces arterial, venous and lymphatic flow

### 7. Iontophoresis

Delivery of pharmacological agents  
DC (direct current) transports ions through skin  
Common drugs used:  
Dexamethasone  
Acetic acid  
Lidocaine

#### 8. Urine and fecal incontinence

Affects pelvic floor musculature to reduce pelvic pain and strengthen musculature  
Treatment may lead to complete continence

#### 9. Lymphatic Drainage

Stimulate lymphatic system to reduce edema

Electrotherapy is primarily used in physical therapy for relaxation of muscle spasms, prevention and retardation of disuse atrophy, increase of local blood circulation, muscle rehabilitation and re-education electrical muscle stimulation, maintaining and increasing range of motion, management of chronic and intractable pain, post-traumatic acute pain, post surgical acute pain, immediate post-surgical stimulation of muscles to prevent venous thrombosis, wound healing and drug delivery.[citation needed]

Some of the treatment effectiveness mechanisms are little understood, with effectiveness and best practices for their use still anecdotal.

Electrotherapy devices have been studied in the treatment of chronic wounds and pressure ulcers. A 1999 meta-analysis of published trials found some evidence that electrotherapy could speed the healing of such wounds, though it was unclear which devices were most effective and which types of wounds were most likely to benefit.[9] However, a more detailed review by the Cochrane Library found no evidence that electromagnetic therapy, a subset of electrotherapy, was effective in healing pressure ulcers[14] or venous stasis ulcers.[15]