



# Electrotherapy

Adult Musculoskeletal Service

*Improving lives*

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Electrotherapy is the use of electrical energy as a medical treatment. In medicine, the term electrotherapy can apply to a variety of treatments, including the use of electrical devices such as therapeutic ultrasound or laser therapy which the Adult MSK Service use when appropriate.

Since its inception, publications have emerged that seem to support efficacy of using therapeutic ultrasound and laser, but data is still scarce as to the exact clinical effects these forms of electrotherapy can have.

Below is a list of reasons and conditions Electrotherapy may be used for:

1. Pain Management
  - Improves the 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 mobility
  - Induces repeated stretching of contracted, shortened soft tissues.

4. Tissue Repair
  - Enhances microcirculation and protein synthesis to heal wounds.
  - 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.

In our service, Electrotherapy is used for relaxation of muscle spasms. Prevention and retardation of disuse atrophy, increase of local blood circulation, maintaining and increasing range of motion, management of chronic and intractable pain, post-traumatic acute pain. .

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

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If you have any concerns or queries, please speak to your podiatrist or physiotherapist.

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