# Randomised controlled study of the use of electrical muscle stimulation in elective total knee arthroscopy

Submission date	Recruitment status	Prospectively registered
30/09/2005	No longer recruiting	Protocol
Registration date	Overall study status	Statistical analysis plan
30/09/2005	Completed	Results
Last Edited	Condition category	Individual participant data
20/02/2020	Surgery	Record updated in last year

# Plain English summary of protocol

Not provided at time of registration

## Contact information

## Type(s)

Scientific

#### Contact name

Mr J Skinner

#### Contact details

Royal National Orthopaedic Hospital (RNOHT) Brockley Hill Stanmore United Kingdom HA7 4LP

# Additional identifiers

Protocol serial number N0209157425

# Study information

Scientific Title

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## **Study objectives**

Patients undergoing total knee arthroscopy develop thigh muscle weakness before and after surgery. Recovery from the operation depends on straight leg raise, walking, movement of the knee joint & stair walking, which all require good muscle power/strength. Electrical muscle stimulation has been shown to be effective in preventing the decrease in muscle strength, muscle mass and oxidative capacity of thigh muscles following knee immobilisation. This study will look a the effect of stimulating the quadracepts and hamstring muscles, to see if it results in improved straight leg raise and flexion of the knee after operation. Effects on pain, muscle size and length of hospital stay will also be examined.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Not provided at time of registration

## Study design

Randomised controlled trial

## Primary study design

Interventional

## Study type(s)

**Not Specified** 

## Health condition(s) or problem(s) studied

Total knee arthroscopy

#### **Interventions**

Patients in the treatment group (50) self-administer daily electrical muscle stimulation for 6-weeks prior to surgery.

## Intervention Type

Procedure/Surgery

#### **Phase**

**Not Specified** 

## Primary outcome(s)

Time to actively raise the straight leg after operation Degree of leg flex 5 days post surgery

## Key secondary outcome(s))

Not provided at time of registration

## Completion date

31/07/2005

# **Eligibility**

Key inclusion criteria

100 patients who are undergoing an elective total knee arthroscopy

## Participant type(s)

**Patient** 

## Healthy volunteers allowed

No

## Age group

**Not Specified** 

#### Sex

**Not Specified** 

## Key exclusion criteria

- 1. Revision operations
- 2. People taking aspirin, clopidogrel or warfarin
- 3. Patients with bleeding disorders, pace maker, unstable/serious cardiac arrhythmia
- 4. Patients with dementia, seizure disorders
- 5. Patients with diabetes or multiple sclerosis, patients with skin disorders, sensitive skin or scars at site of stimulation.

### Date of first enrolment

01/02/2005

### Date of final enrolment

31/07/2005

## Locations

## Countries of recruitment

**United Kingdom** 

England

## Study participating centre Royal National Orthopaedic Hospital (RNOHT)

Stanmore United Kingdom HA7 4LP

# Sponsor information

## Organisation

Department of Health

# Funder(s)

## Funder type

Government

## Funder Name

Royal National Orthopaedic Hospital NHS Trust (UK) - NHS R&D Support Funding

# **Results and Publications**

Individual participant data (IPD) sharing plan

## IPD sharing plan summary

Not provided at time of registration