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A pilot study to compare the energy expenditure of arm-cranking with circuit training at 40% & 70% power output within the first 8 weeks of rehabilitation following spinal cord injury (SCI)

Submission date 28/09/2007	**Recruitment status** No longer recruiting	[ ] Prospectively registered [ ] Protocol [ ] Statistical analysis plan [ ] Results [ ] Individual participant data [ ] Record updated in last year
Registration date 28/09/2007	**Overall study status** Completed	
Last Edited 14/02/2020	**Condition category** Musculoskeletal Diseases	

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
N0209192238

Study information

Scientific Title
A pilot study to compare the energy expenditure of arm-cranking with circuit training at 40% & 70% power output within the first 8 weeks of rehabilitation following spinal cord injury (SCI)

Study objectives
Which method of arm exercise (arm cranking or circuit training) results in the greatest energy expenditure for people following a spinal cord injury (SCI)?

Ethics approval required
Old ethics approval format

Ethics approval(s)
Not provided at time of registration

Study design
Randomised controlled pilot study

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Musculoskeletal Diseases: Spinal cord injury (SCI)

Interventions
Participants will be randomised to receive arm cranking or circuit training first; the second exercise scheme will be used at the second date. Measurement of peak heart rate, peak O2 consumption, energy expenditure and rate of perceived exertion for each exercise regime.

Intervention Type
Other

Phase
Not Specified

Primary outcome(s)
Peak heart rate, peak O2 consumption, energy expenditure and rate of perceived exertion for each exercise regime.

Key secondary outcome(s))
Not provided at time of registration

Completion date
10/01/2007

Eligibility

Key inclusion criteria
1. Participants must have sustained a spinal cord injury (either complete or incomplete) and have a neurological level at of below C6
2. Must be under care of Rehabilitation Consultant at Royal National Orthopaedic Hospital NHS Trust
3. Over 18 years old

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 years

Sex
Not Specified

Key exclusion criteria
1. Participants with spinal cord injury above C6
2. Acute upper limb injury (fracture/ dislocation/ shoulder pain), history of cardiac diseases
3. Pressure sore on weight-bearing skin areas

Date of first enrolment
03/01/2007

Date of final enrolment
10/01/2007

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Royal National Orthopaedic Hospital Trust
Stanmore
United Kingdom
HA7 4LP

Sponsor information

Organisation
Record Provided by the NHSTCT Register - 2007 Update - 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

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes