

# Traditional Shoulder Rehabilitation Exercises versus Eccentric Exercises in Shoulder Patients with Subacromial Impingement Syndrome

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<b>Ethical review</b>	Approved WMO
<b>Status</b>	Pending
<b>Health condition type</b>	Tendon, ligament and cartilage disorders
<b>Study type</b>	Interventional

## Summary

### ID

NL-OMON31105

### Source

ToetsingOnline

### Brief title

oefentherapie bij schouderklachten

### Condition

- Tendon, ligament and cartilage disorders

### Synonym

musculoskeletal disorder of subacromial space / shoulder pain

### Research involving

Human

### Sponsors and support

**Primary sponsor:** Sport Medisch Centrum Papendal

**Source(s) of monetary or material Support:** het onderzoek wordt in zijn geheel niet gefinancierd

## Intervention

**Keyword:** eccentric exercises, shoulder, subacromial impingement, traditional exercises

## Outcome measures

### Primary outcome

- pain, measured with the patient specific complaints score (PSK) and the Constant Murley score
- functioning in daily activities measured with Constant Murley score and PSK
- isometric strength measuring included in Constant Murley score

### Secondary outcome

- tendinosis (is there any change after the treatment sessions ?)
- neovascularisation ( has there been any change in neovascular ingrowth in the tendon after the treatment sessions?)

## Study description

### Background summary

A normal shoulderfunction is essential for being able to perform a daily overhead activity or sport. Shoulderdysfunction such as subacromial impingement can develop severe pain and restrict the patients daily activities and prevent him from participating at training and competition in his sport (often at professional level). Recent studies have shown us the complexity of diagnosing impingement syndrome and have suggested different kinds of treatment. (1,2,3,4,5,8,10,11,13,15,20,21,22,27,)

Still there is no scientific evidence up to date which of all suggested treatment regimens, would be the most effective one, treating patients with shoulder impingement.

In our opinion too many rehabilitation programs are still used in the daily practice without any scientific evidence for their effectiveness.

The researchers would like to contribute to a better understanding of what kind

of exercises should be used treating patients with primary and secondary impingement.

## **Study objective**

The object of this study is to determine the effects of an eccentric muscle training for the supraspinatus muscle compared to the effects of a traditional rehabilitation program including strengthening exercises for the rotator-cuff and the scapular-thoracic muscles (without excentric exercises for the supraspinatus muscle) for patients with primary and secondary impingement syndrome. Finally the researchers want to determine which rehabilitation program is more effective for the primary impingement group and which one is more effective for the secondary impingement group.

## **Study design**

this is a single-blinded, randomised clinical trial

## **Intervention**

- traditional rehabilitation program:

frequency: 7x/week

12 weeks

2x/day

2 x week: one session under supervision of the fysiotherapist

remaining 5 days: exercises at home

- eccentric rehabilitation program:

frequency: 7x/week

12 weeks

2x/day

2 x week: one session under supervision of the fysiotherapist

remaining 5 days: exercises at home

## **Study burden and risks**

there are no other risks for patients in this study compared to a standard fysiotherapy treatment regimen which the patients of this study would undergo anyway

## Contacts

### Public

Sport Medisch Centrum Papendal

Papendallaan 60  
6816 VD Arnhem  
Nederland

### Scientific

Sport Medisch Centrum Papendal

Papendallaan 60  
6816 VD Arnhem  
Nederland

## Trial sites

### Listed location countries

Netherlands

## Eligibility criteria

### Age

Adolescents (12-15 years)  
Adolescents (16-17 years)  
Adults (18-64 years)  
Elderly (65 years and older)

### Inclusion criteria

- primary subacromial impingement diagnosed with RX and ultrasound images and specific shoulder impingement tests
- secondary subacromial impingement diagnosed with impingement tests of the shoulder, instability tests and the scapular retraction and assistance test

### Exclusion criteria

secondary internal impingement  
coracoid impingement

combination of different types of impingement  
cervico-brachialgia  
large calcifications in the rotator-cuff and mechanical obstruction of osteofytes of the acromion

## Study design

### Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active
Primary purpose:	Treatment

### Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-10-2007
Enrollment:	50
Type:	Anticipated

## Ethics review

Approved WMO	
Application type:	First submission
Review commission:	CMO regio Arnhem-Nijmegen (Nijmegen)

## Study registrations

### Followed up by the following (possibly more current) registration

No registrations found.

## Other (possibly less up-to-date) registrations in this register

No registrations found.

## In other registers

### Register

CCMO

### ID

NL17971.091.07