

# Fysisk kapacitet och träning för vuxna med medfödda hjärtfel

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VÄSTRA  
GÖTALANDSREGIONEN  
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## Studie 1

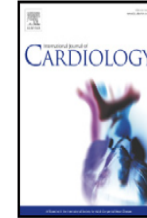
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### Muscle function in adults with congenital heart disease<sup>☆</sup>

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## Aim

To assess muscle function in a sample of Swedish adult men and women with ACHD and to compare the results with published reference values in healthy persons.

## Studypopulation

762 out-patients seen at a specialised ACHD-unit were assessed for the possibility and individual need to take part in tests of muscle function, 315 (41.3%) patients performed the tests and the mean age was  $34 \pm 13$  years.

# Methods

## Isotonic tests



### Isotonic unilateral heel lift

- 10° tilted wedge
- Head should meet the length measurer arm
- 30 lifts/minute

Shoulder flexion. Cider et al. Eur J Cardiovasc Nurs 2006.

Heel-lift. Sunnerhagen et al. Scand J Rehabil Med 2000.



### Unilateral Shoulder flexion 0-90°

- 3kg for men
- 2kg for women
- 20 contractions /minute

Hand grip strength. Rolyan SP. Jamar hydraulic hand dynamometer owner's manual.

Shoulder abduction. Ruuska, master's thesis Gothenburg 2005.



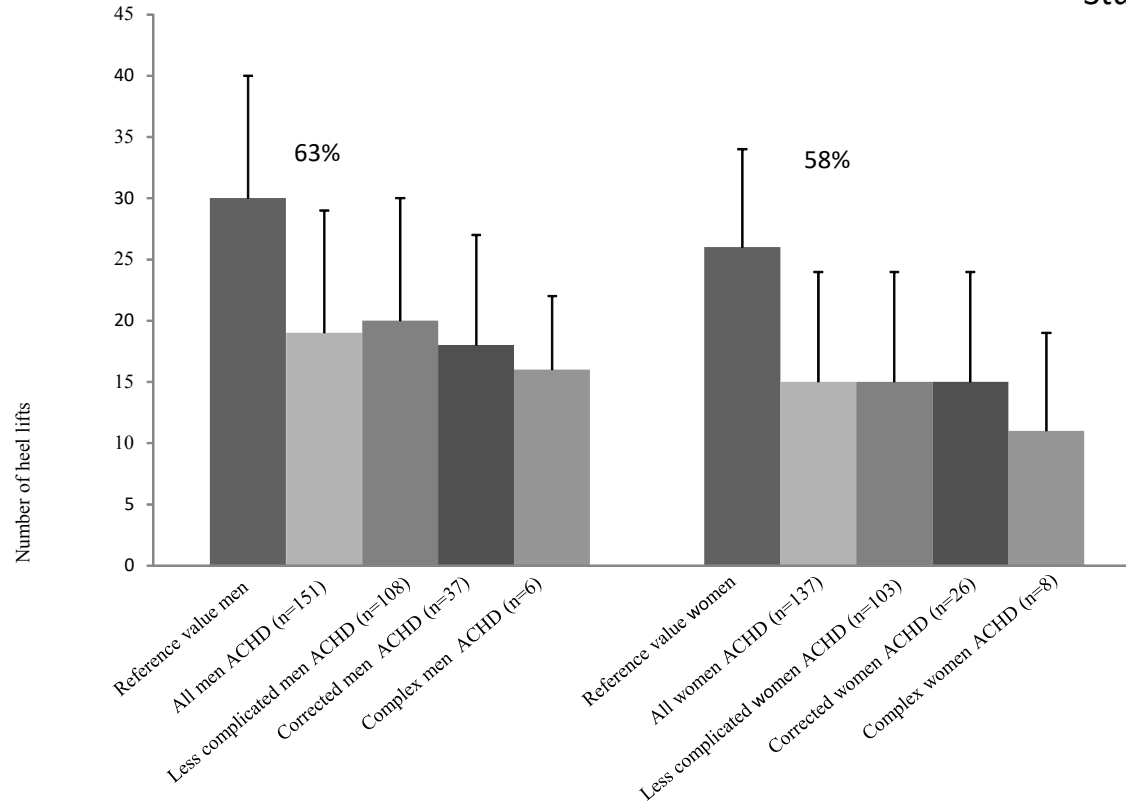
## Studie 1

## Isometric tests



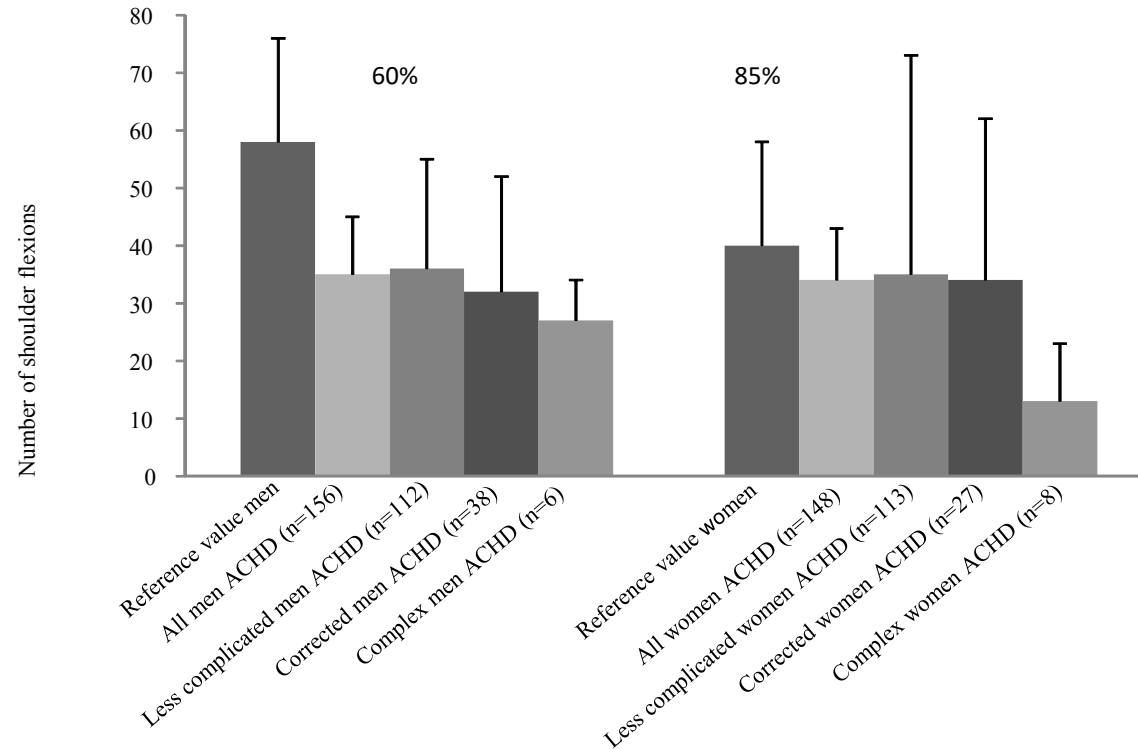


## Studie 1



Figur 2. Number of heel lifts

## Studie 1



Figur 3. Number of shoulder flexions

# Conclusion

Studie 1

Patients with ACHD have a reduced isotonic muscle function. The impacts of the reduced muscle function in activities of daily living and if muscle function could be improved with exercise training needs further investigation.

# Study population

Study 2

1310 out-patients seen at a specialised ACHD-unit were assessed for the possibility and individual need to take part in tests of exercise capacity. 747 (57%) patients participated.

## Methods

- Exercise capacity - Submaximal ergometer bicycle test.  
WHO. Exercise tests in relation to cardiovascular function. 1968.
- Physical activity level - International Physical Activity questionnaire - Short Form (IPAQ-SF).
- Health-related quality of life (HRQoL) - Short Form (SF)-36.



# Muscle function and range of motion with special reference to arm, hand and spine in patients with Coarctatio aortae and patients with Blalock-Taussig shunts

## Aim

To specifically study range of motion and muscle function in upper extremities and spine in patients with Coarctatio aorta (CoA) and patients with Blalock-Taussig (BT) shunts and to compare these results with a control group consisting of patients with other CHD.

# Studypopulation

Approximately 80 patients with CoA and 25 patients with Blalock-Taussig shunts and 25 control patients, attending the ACHD unit at SU/Östra, Gothenburg.

## Methods

- Muscle function will be assessed using 5 different tests; 3 as described in study 1, biceps flexion and spinal stabilization.
- Length and circumference of the arm will be assessed with a measuring tape.
- Spinal and thoracic mobility with a measuring tape and a Scoliometer.
- Questionnaires
  - Level of physical activity (IPAQ -SF).
  - Patient's self-reported functional status limitations that are most relevant to the individual patient using Patient specific functional scale (PSFS).

# Tack för visat intresse!

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