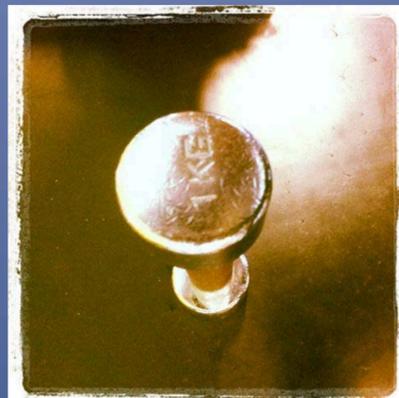
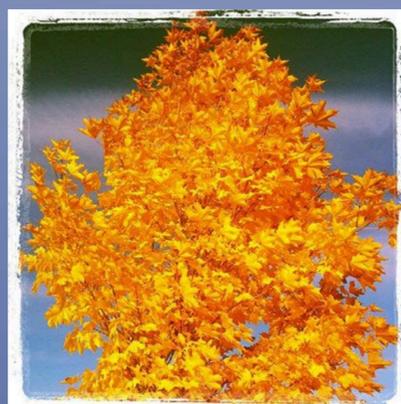


# Self reported physical activity and risk markers for cardiovascular disease after spinal cord injury

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## Background

Persons with posttraumatic paraplegia due to spinal cord injury (SCI) have an increased risk for, and prevalence of cardiovascular disease (CVD) as compared to the general population (1). A recent study (2) has shown that about 80% of persons with paraplegia have one or more risk markers for CVD, irrespective of BMI. Physical guidelines have recently been developed to increase physical fitness in persons with SCI (3-4). However, no consensus exists for type, frequency, duration and intensity of training for this population (5). If, and to what extent, the general recommendations and guidelines to population health, of 30 minutes physical activity per day, at least five days per week, are applicable to the SCI population regarding risk reduction for CVD is not yet established.



## Aim

The purpose of the study was to examine whether self-reported physical activity of a moderate/vigorous intensity may influence risk markers for CVD in persons with paraplegia due to SCI.

## Methods

Descriptive, cross-sectional study. 134 (103 men, 31 women) wheelchair-dependent individuals with posttraumatic SCI, paraplegia ASIA grade of A, B or C.

## Results

One out of five persons reported physical activity  $\geq 30$  minutes per day. Persons who were physically active more than 30 minutes per day were significantly younger than those who were inactive.

Systolic and diastolic blood pressure was lower in the physically active group. However, when adjusting for age, the significant association between systolic blood pressure and physical activity disappeared.

Physical activity more than 30 minutes per day had a tendency to positively influence BMI and LDL/HDL quota. Men had significantly higher systolic and diastolic blood pressure than women, lower HDL, higher LDL/HDL-ratio and higher TG. No other significant differences between men and women were found.

## Conclusion

Only 20% of the study group reported physical activity more than 30 minutes per day. Self reported physical activity, according to general recommendations, in persons with SCI, did influence diastolic blood pressure positively. However, no other reductions in CVD risk markers were seen after controlling for age. Based on these results, it is doubtful whether recommendations for physical activity in CVD prevention for the general population are applicable to wheelchair-dependent persons with SCI.

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