

# Physical activity and stroke – Associations and patient experiences

Akademisk avhandling

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## Avhandlingen baseras på följande delarbeten

- I. Reinholdsson M, Palstam A, Sunnerhagen KS, Prestroke physical activity could influence acute stroke severity (part of PAPSIGOT), *Neurology* 2018; 91: e1461–e1467.
- II. Reinholdsson M, Abzhandadze T, Palstam A, Sunnerhagen KS, A register-based study on associations between pre-stroke physical activity and cognition early after stroke (part of PAPSIGOT), *Scientific Reports* 2022; 12: 5779.
- III. Reinholdsson M, Palstam A, Jood K, Sunnerhagen KS, Associations between pre-stroke physical activity levels and health-related quality of life 3 months after stroke: a registry-based study (part of PAPSIGOT). *International Journal of Stroke*, 2023 jun 12:17474930231184367.
- IV. Reinholdsson M, Herranen G, Sunnerhagen KS, Palstam A, 2023, There is more to movement than physical activity: patient experiences with physical activity and inactivity in the stroke unit – a qualitative interview study, Submitted 2023.

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## **Physical activity and stroke – Associations and patient experiences**

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### **Abstract**

**Background:** Insufficient physical activity is a global problem and a risk factor for stroke. Furthermore, physical activity is often reduced after stroke, and many patients are physically inactive in stroke units.

**Aim:** To explore the association between pre-stroke physical activity and stroke severity, cognition, and health-related quality of life, as well as patient experiences of physical activity and inactivity in the stroke unit.

**Methods:** One qualitative interview study and three register-based quantitative studies were conducted. The register-based studies included between 925–2,044 patients with first stroke treated at three stroke units in one Swedish hospital, between the years 2014 and 2018. In the qualitative study, 16 patients from eight Västra Götaland Region hospitals were interviewed. Statistics were mostly regression analyses, while interviews were analysed using thematic analysis.

**Results and conclusions:** Higher levels of pre-stroke physical activity were associated with less acute stroke severity, a higher odds ratio for intact cognition during hospital stay, and better health-related quality of life 3 months after stroke than pre-stroke inactivity. Light physical activities, including walking for at least 4 h/week and moderate physical activities for at least 2–3 h/week were associated with positive stroke outcomes. In the in-depth interviews, patients with stroke said that physical activity in the stroke unit help them regain independence, be seen, and choose between solitude and social connection. The interviewees wanted to explore familiar activities in new ways and for the stroke unit staff to focus on patients with stroke rather than their daily routines.

**Keywords:** Stroke, physical activity, exercise, sedentary behaviour, stroke unit care