

## PHYSICAL ACTIVITY IN STROKE PATIENTS: BARRIERS AND FACILITATOR

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Stroke remains a significant global health challenge, often resulting in substantial functional limitations and markedly reduced levels of physical activity among survivors. Approximately 30% of stroke patients are at high risk of recurrence, underscoring the critical role of physical activity in post-stroke care. Regular engagement in physical activity has been shown to reduce the risk of both first-time and recurrent strokes by positively influencing modifiable risk factors such as hypertension, hyperglycemia, and hypercholesterolemia.

According to the World Health Organization, physical activity is defined as any bodily movement produced by skeletal muscles that requires energy expenditure. The American Heart Association recommends 20 to 60 minutes of aerobic activity, three to five times per week. However, individuals with chronic conditions—particularly stroke survivors—are generally less physically active than the general population. Notably, only about 21% of stroke survivors meet the recommended physical activity levels, making stroke one of the conditions with the lowest rates of adherence. This issue is even more severe among non-ambulatory patients, for whom achieving sufficient activity is especially challenging. Accordingly, stroke rehabilitation programs are designed not only to restore physical function and promote independence but also to instill long-term habits of physical engagement aimed at preventing future cardiovascular events. To effectively address physical inactivity following stroke, the first essential step is accurate assessment.

Physical activity levels can be evaluated through both objective and subjective methods. Objective tools include the doubly labelled water method, heart rate monitors, calorimeters, and accelerometers. Subjective methods involve self-report questionnaires and activity diaries. Among these, accelerometers—wearable electromechanical devices—are particularly effective, as they provide objective, real-time data on the frequency, intensity, and duration of physical activity under naturalistic conditions. Commonly reported barriers to physical activity after stroke include environmental limitations, comorbid health problems, and stroke-related impairments. In contrast, social support has consistently emerged as a key facilitator. A widely used conceptual framework in this field highlights the dynamic interaction between motivation (the desire to be active) and capability (the resources to be active), with various internal and external factors influencing both. For instance, while the direct effects of stroke may act as barriers, encouragement from healthcare professionals or fellow survivors can serve as powerful motivators. For this very reason, interventions designed to increase physical activity post-stroke should be tailored not only to individual clinical profiles but also to a wide range of personal and social factors, including cultural norms and family dynamics. Evaluating the impact of cultural differences—particularly familial

interactions—can be essential for the long-term success and relevance of rehabilitation efforts.

**Keywords:** Stroke, Physical Activity, Barriers, Facilitator

## References

1. Karadag-Saygi E., Giray E., Eren N., Yolcu G., Coskun O.K., Cifcili S. Barriers and facilitators to physical activity participation among community-dwelling physically inactive individuals after stroke: A qualitative exploratory study. *Int. J. Rehabil. Res.* 2024;47:34–40. doi: 10.1097/MRR.0000000000000610
2. Simpson LA, Eng JJ, Tawashy AE. Exercise perceptions among people with stroke: barriers and facilitators to participation. *Int J Ther Rehabil* 2011; 18:520–530.
3. 3. Nicholson SL, Donaghy M, Johnston M, Sniehotta FF, van Wijck F, Johnston D, et al. A qualitative theory guided analysis of stroke survivors' perceived barriers and facilitators to physical activity. *Disabil Rehabil* 2014; 36:1857–1868.