

# Physical activity

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Physical activity refers to any bodily movement that requires energy expenditure. It encompasses a wide range of activities, from simple movements like walking and gardening to more structured and vigorous exercises such as running, weightlifting, or team sports. Regular physical exercise has numerous health benefits for both the body and mind. Here are some key aspects of physical exercise:

## Types of Physical Exercise:

**Aerobic Exercise:** Activities that increase your heart rate and breathing, such as running, cycling, and swimming. **Strength Training:** Involves using resistance to build muscle strength and endurance, including weightlifting and bodyweight exercises. **Flexibility and Stretching:** Activities that improve the range of motion and flexibility, such as yoga or Pilates. **Balance and Stability:** Exercises that enhance balance and stability, important for overall coordination and injury prevention. **Health Benefits:**

**Cardiovascular Health:** Regular exercise can improve heart health, reduce the risk of cardiovascular diseases, and lower blood pressure. **Weight Management:** Physical activity plays a crucial role in weight control by burning calories and maintaining a healthy metabolism. **Muscle and Bone Health:** Strength training helps build and maintain muscle mass, while weight-bearing exercises contribute to bone density. **Mental Health:** Exercise is linked to reduced symptoms of anxiety and depression, improved mood, and enhanced cognitive function. **Metabolic Health:** Regular physical activity can improve insulin sensitivity, regulate blood sugar levels, and reduce the risk of type 2 diabetes.

## Guidelines for Physical Activity:

The World Health Organization (WHO) recommends adults engage in at least 150 minutes of moderate-intensity aerobic exercise or 75 minutes of vigorous-intensity aerobic exercise per week, along with muscle-strengthening activities on two or more days a week. Children and adolescents should aim for at least 60 minutes of moderate to vigorous physical activity daily. **Individual Preferences:**

The effectiveness and sustainability of physical exercise depend on individual preferences, fitness levels, and health conditions. Finding activities that one enjoys can contribute to long-term adherence. Adverse Effects of Inactivity:

Sedentary behavior and lack of physical activity are associated with various health risks, including obesity, cardiovascular diseases, musculoskeletal issues, and mental health disorders. Safety Considerations:

Before starting a new exercise program, individuals should consider their current health status, consult with healthcare professionals if necessary, and choose activities suitable for their fitness level. Remember that the key to reaping the benefits of physical exercise is consistency. Incorporating regular physical activity into one's routine contributes significantly to overall health and well-being.

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Among surveyed neurosurgeons, 66.7% exhibited a [prevalence](#) of [burnout](#), while 23.4% met the [criteria](#) for defined burnout. Significantly higher rates of burnout syndrome were observed among [residents](#), specifically those in their fifth year of [residency](#), as well as those whose [departments](#) perform a moderate range of surgeries (500-1000), participating in on-call duties, lacking regular [physical exercise](#) (at least twice a week), engaging infrequently in social activities with friends, lacking extracurricular hobbies, and obtaining scores exceeding 10 points in any of the HADS subscales.

Burnout syndrome affects nearly a quarter of the neurosurgical specialists included in this study. Moreover, a distinct profile associated with defined burnout among neurosurgeons emerges, encompassing characteristics such as being a fifth-year resident, belonging to departments with a moderate number of surgeries, with few extra-occupational distractions, and exhibiting symptoms of [depression](#) or [anxiety](#) <sup>1)</sup>.

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Physical activity appears to be a rare trigger factor for SAH. These results are in contrast to the idea that physical activity should, as a precaution, be avoided in patients with unruptured ICA. There is at present no scientific evidence of an association with aneurysmal SAH <sup>2)</sup>.

<sup>1)</sup>

Fernández-Villa de Rey-Salgado J, Curiel-Montes A, Abarca-Olivas J, González-López P, Borrás-Rocher F, González-Sánchez L, Nieto-Navarro JA. Burnout in Neurosurgery. World Neurosurg. 2024 Feb 7:S1878-8750(24)00194-3. doi: 10.1016/j.wneu.2024.01.173. Epub ahead of print. PMID: 38336209.

<sup>2)</sup>

Mallereau CH, Todeschi J, Lefevre E, Chibbaro S, Proust F, Cebula H. Is physical activity a trigger factor for subarachnoid hemorrhage? Neurochirurgie. 2021 Jun 29:S0028-3770(21)00172-7. doi: 10.1016/j.neuchi.2021.06.011. Epub ahead of print. PMID: 34214496.

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