

Meeting physical activity guidelines and chronic disease in South Australia

Research summary



Government
of South Australia

Preventive Health SA

Why this research matters

Physical activity is a key protective factor for preventing chronic diseases such as heart disease, type 2 diabetes, and some cancers, making it an important focus for preventive health policy and action. Global public health guidelines recommend engagement in both aerobic (e.g. walking, cycling, jogging) and muscle-strengthening exercise (e.g. weight or resistance training) for the prevention and management of chronic disease.



This is the first study to examine adherence to both components of physical activity guidelines, and links with chronic disease among a large South Australian adult population.

How the study was conducted

This research examined how many South Australian adults meet recommended levels of physical activity, variation across different population groups, and associations with several chronic diseases. It analysed data among over 35,000 adults (aged 18-64 years) from the South Australian Population Health Survey (2018-2024). Data were weighted to be representative of the South Australian population, with analyses adjusted for key influencing factors such as age, smoking status, and socioeconomic position.

How physical activity was measured

Physical activity was assessed using self-reported survey data. Adults were classified based on whether they met:

Aerobic activity guidelines

At least 150 minutes of moderate-vigorous physical activity/week

Muscle-strengthening guidelines

Activities such as resistance or strength training at least 2 days/week

Chronic diseases examined

Participants were asked whether they had ever been diagnosed with a range of chronic health conditions.

Cardiovascular conditions

(heart disease, hypertension)

Metabolic conditions

(type 2 diabetes, high cholesterol)

Mental health conditions

(depression, anxiety)

Key findings



Only **one in four** (25.1%) South Australian adults met both aerobic and muscle-strengthening physical activity guidelines.



Meeting both guidelines was **less likely** among older adults, women, people living in socioeconomically disadvantaged areas, and people living with obesity.



adults who met both physical activity guidelines had **37% lower** prevalence of diabetes compared with those who met neither guideline.

What this means for prevention

Most South Australian adults are not meeting recommended levels of physical activity. With clear links to chronic disease, findings highlight the need to strengthen preventive health action.

This requires moving beyond individual behaviour change, to population-level approaches that make physical activity easier, more accessible, and more equitable by addressing the social, environmental, and structural conditions that shape participation.

Findings can also inform state-based strategies to target population groups with lower adherence to physical activity guidelines to help improve participation.

Promoting these approaches has the potential to reduce the chronic disease burden and promote healthier South Australians, across generations.

Next steps for research and action



Strengthen population-level strategies to increase both aerobic and muscle-strengthening activity, with a focus on groups with lower adherence to guidelines.



Prioritise implementation of effective, evidence-based policy and system approaches in South Australia to improve equitable access to physical activity.



Future population monitoring should look to include measures of sedentary behaviour, reflecting the growing use of 24-hour movement guidelines.



Future longitudinal research should examine physical activity patterns across the life course and causal links with chronic disease.

Further information

Bennie et al. (2026). The epidemiology of physical activity guideline adherence among 35,633 adults: Findings from the South Australian Population Health Survey. Preventive Medicine.
<https://www.sciencedirect.com/science/article/pii/S0091743526000939>