

# Exploring the relationship between sedentary behaviour and diet in adults using the Scottish Health Survey – A secondary data analysis

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Both sedentary behaviour and poor diet are associated with adverse cardiometabolic effects and increased risk of chronic disease, with serious implications on health and the economy<sup>(1)</sup>. This study explored the relationship between these modifiable health behaviours in the Scottish adult population and aimed to determine any association, understand the extent of the impact, identify at risk groups of high sitting behaviours and enable baseline comparisons for future research and intervention measures.

A secondary data analysis was undertaken using the combined 2016–2019 Scottish Health Survey (SHeS) dataset<sup>(2)</sup>. There were 11,620 adult respondents within 24 to 65 years, representing the working age population. Leisure TV/Screen time was used as a proxy for sitting time and this was split into sedentary quartiles, and then analysed against dietary items split into food groups and sociodemographic characteristics using SPSS.

High sitting times were significantly associated with fewer daily intakes of fruit and vegetables, and higher weekly consumptions of alcohol, starchy carbohydrates, and foods high in fat, sugar and salt. Statistically significant differences were seen across all sociodemographic variables covered in this study. Sedentary time increased with age, 1 in 5 males and 1 in 6 females had very high levels of sedentary behaviour (>241 minutes), and higher rates of sitting were found in those with lowest occupation, income and education levels (35% of those with no qualifications), and highest deprivation (28% of the most deprived according to SIMD).

Understanding the relationship between sedentary behaviour and diet has important consequences in public health. Effective strategies and educational health campaigns are needed to target high risk groups to limit the compounding effects and reduce the economic burden and poor health outcomes attributed to these diet and lifestyle health behaviours.

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## References

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