Sedentary time and markers of inflammation in people with newly diagnosed type 2 diabetes

Key Words: Diabetes, sedentary time, inflammation

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Abstract

Type 2 diabetes is an independent risk factor for cardiovascular disease (CVD) and in people with CVD, the presence of diabetes worsens prognosis. Chronic inflammation is implicated in the pathogenesis of type 2 diabetes and in the development of CVD. Regular physical activity is known to reduce inflammation in people with type 2 diabetes; however, people with type 2 diabetes have very low levels of physical activity and most spend the majority of their day in sedentary pursuits. Previous research has highlighted the detrimental effect of prolonged sedentary behaviour on markers of metabolic health in people with type 2 diabetes. Furthermore there is evidence of sedentary time impacting upon inflammation. Therefore reducing sedentary time may provide an alternative approach to managing health and CVD risk in people with diabetes.

This study will use data from the Early ACTID lifestyle intervention cohort to examine the cross-section and longitudinal associations of objectively measured sedentary time with markers of inflammation in people with newly diagnosed type 2 diabetes. This will be a secondary data analysis of data from the baseline and 6 month data collection.