

## **Cardiometabolic Risk Clustering and Atherosclerosis: Is There a Link in Spinal Cord Injury?**

Authors: S Groah, H Hosier, E Ward, M Nash, A Libin, A Taylor

### **ABSTRACT**

Cardiovascular disease (CVD) is linked to a variety of cardiometabolic (CM) risk factors in the general population, primarily overweight/obesity, atherogenic dyslipidemia, hypertension, and insulin resistance. More recently, the role of inflammation in the process of atherosclerosis has become better defined. Multiple combinations of these CM risk factors in populations are termed clustering and, when present, increase the risk of CVD nonlinearly. As CVD is the leading cause of death among people with spinal cord injury (SCI) surviving for longer than 30 years (46% of deaths) and among persons with SCI more than 60 years of age (35% of deaths), it is imperative that we understand both population-specific CM risks and risk clustering, as well as the role played by risk surrogates in predicting population-specific CVD. The primary aim of this study is to describe the prevalence of atherosclerotic CVD using coronary calcium scoring, coronary angiography, and carotid intima media thickness (CIMT) in people with SCI. We will then assess the associations between CM risk clustering and CVD.

**Key words:** *cardiovascular disease, cardiovascular imaging, spinal cord injury*