

Acute Coronary Syndrome Risk Lowered With 7500 Steps a Day

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June 7, 2011 (Denver, Colorado) — A **physical activity target of 7500** steps a day is a realistic goal for patients with acute coronary syndrome, and can help them reduce cardiovascular risk factors, according to research presented here at the American College of Sports Medicine (ACSM) 58th Annual Meeting.

Pedometers have become popular tools for setting fitness goals; 10,000 steps is a common goal for healthy individuals. Researchers in Canada speculated that a goal of 7500 steps per day could likewise help improve outcomes after hospitalization for acute coronary syndrome.

"According to [ACSM] recommendations, individuals in cardiovascular secondary prevention should perform 6500 to 8500 daily steps to achieve a fair exercise energy expenditure," said lead author Audrey Auclair, BSc, ACSM clinical exercise specialist from the Institut Universitaire en Cardiologie et Pneumologie de Québec, in Québec City.

"Nevertheless, this recommendation is not supported by specific clinical outcomes related to coronary artery disease progression or regression."

Ms. Auclair and her team randomized 65 subjects who were recruited during hospitalization for acute coronary syndrome to participate in a home-based cardiac rehabilitation program, which included the use of a blinded pedometer and a sociocognitive intervention.

The average number of steps per day was assessed at baseline and at 3, 6, 9, and 12 months after entry into the program. Patients were classified as being in the active group ($n = 30$) if they maintained more than 7500 steps per day for 12 months, or in the sedentary group ($n = 21$) if they did not.

The active group did significantly better than the sedentary group in a variety of measures, including high-density-lipoprotein (HDL) cholesterol (1.3 vs 1.0 mmol/L; $P = .002$); triglycerides (1.1 vs 1.6 mmol/L; $P = .002$); and total cholesterol to HDL cholesterol ratio (2.9 vs 3.6; $P = .001$).

Waist circumference was also significantly better in the active group than in the sedentary group (93 vs 103 cm; $P = .005$).

The results were similar after adjustment for age, sex, and baseline waist circumference.

"The maintenance over time of a daily-steps target is very important for achieving an optimal impact on cardiovascular risk factors," Ms. Auclair emphasized. "Our study showed some beneficial effects of the maintenance of 7500 steps per day, or more, after 12 months on the lipid profile and waist circumference."

"It's important to remember there is a dose–response beneficial impact of physical activity. For more benefit on cardiovascular risk factors, one must increase daily steps to more than 7500."

The findings offer useful information on just how low coronary patients can take their exercise regimens to safely achieve benefits and potentially improve their outcomes, said Robert E. Sallis, MD, FACSM, chair of the Exercise is Medicine initiative and past president (2007/08) of the ACSM.

"Traditionally, we think of 10,000 steps per day as being the target goal, so to see that even with fewer steps there is significant improvement is great information," he said.

"Other studies have shown sort of a linear relationship, in which the more exercise patients do, the better it is for them, but the more time commitment there is, the less likely they are to sustain that level, so I love the fact that just 7500 steps has been shown to provide a benefit because this is a doable amount for most people."

"It underscores that this is something we all need to incorporate into our practice and recommend to heart patients."

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