



PRESS RELEASE

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TRIAL TESTS INTERVENTION TO REDUCE SEDENTARY TIME AMONG PATIENTS WITH CHRONIC KIDNEY DISEASE

'Sit Less, Interact, Move More' intervention was successful but did not have sustained effects.

Highlights

- Sedentary time decreased, stepping time increased, and number of steps per day increased among patients with chronic kidney disease assigned to the 'Sit Less, Interact, Move More' intervention.
- These effects were not sustained after 20 weeks, however.

Washington, DC (April 22, 2021) — A recent randomized trial tested an intervention to reduce sedentary time and increase physical activity in individuals with kidney disease. The findings will appear in an upcoming issue of *CJASN*.

Sedentary behavior is very common in individuals with chronic kidney disease (CKD), especially those with more advanced stages, and it's linked with a higher risk of dying prematurely.

A team led by Srinivasan Beddhu, MD (University of Utah School of Medicine and Veterans Affairs Salt Lake City Health Care System) and Kate Lyden, PhD (University of Massachusetts, Amherst and Colorado State University) designed a study to see whether light intensity casual stepping could decrease sedentary time to improve health and well-being in patients with moderate-to-advanced CKD.

In this single center, pilot, open-labeled, randomized controlled trial conducted at the University of Utah, participants' activity was assessed through accelerometers attached to the skin on the midline of the thigh. The 54 patients assigned to the 'Sit Less, Interact, Move More' intervention received educational materials, were shown graphic displays of their accelerometer summaries, and were provided feedback on when they were most sedentary. They were instructed to get up from sitting/lying posture while awake at least once per hour and to engage in light intensity activities. The 52 participants in the control group were provided national physical activity recommendations.

The researchers found that by week 20, sedentary time decreased by an average of 43 minutes per day, stepping time increased by 16 minutes per day, and number of steps per day increased by 1,265 in the intervention group. Although the intervention reduced the amount of time that patients were sedentary and increased the amount of time that they walked, these effects were not sustained over subsequent weeks.

“These results suggest that while it is feasible to reduce sedentary duration in patients with CKD, additional co-interventions might be needed to sustain these effects long-term,” said Dr. Beddhu.

Dr. Beddhu stressed that physical inactivity (not achieving the weekly moderate/vigorous activities goal of 150 minutes/week) is distinct from sedentary behavior (sitting/lying down most of the time). “One can be physically active and reach the weekly goal of 150 minutes per week—2% of awake time—but still be sedentary by sitting or lying down for the remainder of the 98% awake time. Hence, it is important to address both physical inactivity and sedentary behavior for a healthier lifestyle,” he said.

An accompanying editorial noted that kidney specialists are uniquely positioned to assist individuals who are sedentary and living with CKD to make meaningful lifestyle changes that will improve their overall health and quality of life. “The kidney health community would benefit from future pragmatic clinical trials of a multidisciplinary approach to improving health and wellness in populations living with CKD,” wrote author Baback Roshanravan, MD, MS, MSPH (University of California Davis).

Study co-authors include Robert Boucher, BS, Guo Wei, MS, Na Zhou, MD, Jesse Christensen, DPT, PhD, Glenn M. Chertow, MD, MPH, and Tom Greene, PhD.

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Ingleheim, CSL, and Vertex. K. Lyden reports employment with KAL Research/Consulting and VivoSense, Inc and ownership interest in VivoSense, Inc.

The article, titled “Targeting Sedentary Behavior in Chronic Kidney Disease: A Pilot and Feasibility Randomized Controlled Trial,” will appear online at <http://cjasn.asnjournals.org/> on April 22, 2021, doi: 10.2215/CJN.12300720.

The editorial, titled “Moving Beyond Sedentarism in CKD,” will appear online at <http://cjasn.asnjournals.org/> on April 22, 2021, doi: 10.2215/CJN.03460321.

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