

Newsletter

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Breaks, posture shifts help ward off low back pain

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People who do work that requires them to spend lots of time with their backs bent should take frequent walking and standing breaks to avoid lower back pain, the authors of a new study conclude.

Dr. Kelvin C.H. Wong of The Hong Kong Polytechnic University used a device called an accelerometer to track spinal posture in workers at a school for severely handicapped individuals. All the workers had to spend a considerable amount of time working in a stooped posture, for example to move students - - most of whom needed help with activities of daily living -- from place to place.

Eighteen of the workers had suffered from low back pain for a minimum of one to seven days in the previous year, while 15 had no back pain problems for the past 12 months.

Each wore an accelerometer attached to their trunk for three hours in the morning and another three hours in the afternoon. The device was able to record the degree to which people's backs had moved out of the upright position, and how much time they spent in various degrees of back flexion.

Overall, Wong and his team found, the people who had back pain were spending more time with their trunks in the same position compared to people who were pain-free. They also spent less time with their backs flexed less than 10 degrees, and more time in three positions in which their backs were bent more than 10 degrees.

"It thus appears that an increase in risk of back pain may be associated with long periods of sustained stooped posture," the researchers state in the online journal BMC Musculoskeletal Disorders.

Changing one's posture frequently and remaining aware of trunk posture can help fight fatigue and reduce the stress the workers were placing on their backs, Wong and his colleagues say, adding: "Rest activities such as standing up from stooping and walking for a short distance are suggested to promote the cyclic muscular contraction and relaxation that facilitate the nourishment of spinal tissues and provide periodic rest to the muscles."