

## Backache? Sitting upright could be culprit

by Radiological Society of North

“Dignified” might not always equal healthy. Sitting straight up-right strains the back unnecessarily, causing potentially chronic pain problems over the long run, a new study has found. The scientists presented the findings Nov. 27 in Chicago at the annual meeting of the Radiological Society of North America.

Sitting at 135 degrees rather than 90 degrees could improve back health, researchers say. “A 135-degree body-thigh sitting posture was demonstrated to be the best biomechanical sitting position, as opposed to a 90-degree posture, which most people consider normal,” said Waqar Amir Bashir of the University of Alberta Hospital in Canada, one of the researchers. “Sitting in a sound anatomical position is essential, since the strain put on the spine and its associated ligaments over time can lead to pain, deformity and chronic illness.” Back pain is the most common cause of work-related disability in the United States, according to the National Institute of Neurological Disorders and Stroke. “We were not created to sit down for long hours, but somehow modern life requires the vast majority of the global population to work sitting,” Bashir said. His team studied 22 volunteers with no history of back problems, using a new form of an existing tissue-scanning technology, magnetic resonance imaging. The new “positional” version of the scanner lets patients adopt different positions, rather than having to lie flat as with the traditional machines. The volunteers sat three different ways: slouching, or hunched forward; up-right, a 90-degree position; and “relaxed,” leaning back 135 degrees with feet on the floor. Spinal disks are prone to risky shifts when the spine carries weight, the researchers said; this was most pronounced at 90 degrees and least at 135. Slouching reduced spinal disk height, indicating wear and tear on lower spinal levels, they added. Across all measurements, the researchers concluded that the 135-degree position fared the best. “This may be all that is necessary to prevent back pain, rather than trying to cure pain that has occurred,” Bashir said. “Employers could also reduce problems by providing their staff with more appropriate seating, thereby saving on the cost of lost work hours.”

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