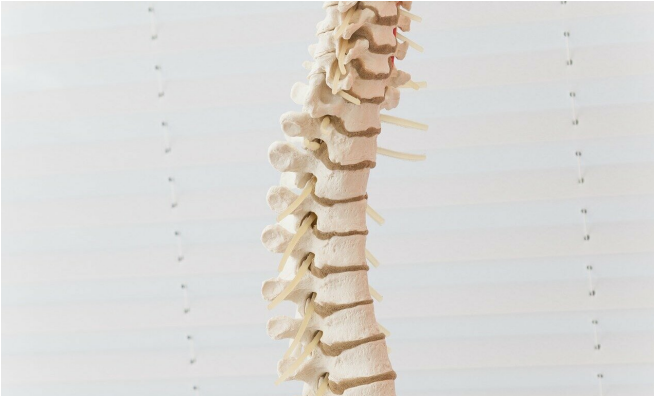# Researchers identify better classification system for adult idiopathic scoliosis

19 August 2020

Credit: CC0 Public Domain

Researchers have designed a new X-ray classification system for adult idiopathic scoliosis that can more precisely define which parts of the spine need correction, an achievement that could enhance treatment, communication, and analysis of spinal deformities affecting older patients, according to a study published in *Spine Deformity* in August.

The team of researchers, led by James D. Lin, MD, MS, a spine surgeon at The Mount Sinai Hospital and Assistant Professor of Orthopedic Surgery at the Icahn School of Medicine at Mount Sinai, said their modern approach to the X-ray classification system could provide a more universal and standard assessment of adult scoliosis.

"This classification system provides a new language for clinicians and researchers, helping us reliably categorize and communicate the radiographic features of adult idiopathic scoliosis, in order to more effectively facilitate treatment and further analysis," said Dr. Lin. "This will help researchers and surgeons scrutinize past results from prior surgeries and refine future treatment."

Scoliosis is a sideways curvature of the spine, a condition that affects an estimated six million people in the United States. Many develop it in adolescence, but only a small percentage of adolescent cases require surgery. While adult scoliosis can be the natural progression of adolescent scoliosis, adults can also develop it for the first time; those cases are called adult degenerative scoliosis. The symptoms and surgical treatment can differ significantly for older patients; for example, adults often experience more pain from the condition.

The new method builds on the Lenke classification system for adolescent idiopathic scoliosis, which is widely used to define six curve types but is not applicable to adults. The new three-component method maintains the curve types from the Lenke classification and introduces assessments of the global alignment and lumbosacral curve, two features that more commonly deteriorate in older patients.

In the study, 12 spine surgeons used the new classification system to grade 30 cases twice, which resulted in near-perfect agreement in the assessment of the patients. This latest method to classify adult scoliosis could improve treatment options because it helps define the different areas of the spine that need to be corrected and fused, and there is currently no widely accepted X-ray classification system for the complex condition.

"The development of a new classification system, led by Dr. Lin, strengthens our efforts at the Spine Center at The Mount Sinai Hospital to provide innovative and customized treatment for patients with spinal disorders and injuries," said Andrew Hecht, MD, Chief of Spine Surgery for the Mount Sinai Health System and The Mount Sinai Hospital, and Director of the Spine Center at Mount Sinai. "The new method ensures that we have a more exhaustive, thorough, and rigorous benchmark in how we analyze and treat adults with spinal

conditions throughout the Mount Sinai Health
System, but also for our colleagues throughout the
entire orthopedic community, helping us all to
provide exceptional care."

More information: [DOI: 10.1007/s43390-020-00181-7](#) , [link.springer.com/article/10.1 … 7/s43390-020-00181-7](#)

Provided by The Mount Sinai Hospital

APA citation: Researchers identify better classification system for adult idiopathic scoliosis (2020, August 19) retrieved 11 October 2022 from https://medicalxpress.com/news/2020-08-classification-adult-idiopathic-scoliosis.html