

American Journal of Orthodontics & Dentofacial Orthopedics

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COVER

On the cover: Osseous changes of the temporomandibular joint are typically diagnosed on the radiographs of patients who have temporomandibular disorders. But in some cases, more information is needed to make an accurate diagnosis, understand the pathophysiology, and plan treatment. Three-dimensional cone-beam computed tomography scans reveal much more information than 2D x-rays, but high-resolution CBCT scanning exposes the patient to more radiation. Could scans taken at relatively low settings be used to diagnose small condylar defects? Patel et al created small defects in pig mandibular condyles, and then scanned the mandibles at relatively low settings (0.4 mm and 2 mm voxel sizes, full field of view). They found that all but the smallest defects (<2 mm) could be detected on the scans taken at a lower setting. The smiling patient on the cover is Christina Vasiliadis, who was treated orthodontically by Dr Joan Walder from Northampton, Massachusetts.

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