The patient was a 29-year-old man who presented to an emergency department with a chief complaint of low back pain. Symptom onset occurred 3 weeks earlier, following a fall off a roof that was 4.6 m high. The patient's low back pain was described as constant and had progressively worsened since the fall. The physician ordered radiographs of the thoracic and lumbar spines, which were interpreted as normal (FIGURE 1). After receiving the results of the radiographs, the physician referred the patient to a physical therapist working in the emergency department.

Physical examination findings revealed that active range of motion of the lumbar spine was markedly decreased in all planes because of pain, and there was exquisite tenderness to palpation noted over the vertebral spinous processes of the thoracolumbar junction. A lower-quarter neurological examination, which included sensation, reflex, and motor testing, was normal.

Because of the strong suspicion for a fracture and because radiographs are not considered to be sensitive to some of the bony changes associated with fractures, computed tomography imaging of the thoracic and lumbar spines was ordered. The computed tomography imaging revealed multilevel, small end-plate compression defects, most marked at T12-L1, with mild anterior wedging and retropulsion of a small bone fragment at L1 (FIGURE 2). A neurosurgeon was consulted, who recommended conservative management, which consisted of bracing for comfort, activities-of-daily-living modifications to include temporary avoidance of spinal flexion, and physical therapist intervention. At 3 months following his injury, the patient was pain free and had returned to all required activities of daily living. 

Low Back Pain Following a Fall

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Reference