

# CLINICAL CHALLENGE: CASE 1

In each issue, *JUCM* will challenge your diagnostic acumen with a glimpse of x-rays, electrocardiograms, and photographs of dermatologic conditions that real urgent care patients have presented with. If you would like to submit a case for consideration, please e-mail the relevant materials and presenting information to *editor@jucm.com*.



The patient is a 3-year-old female who presented after a fall while running and complaining of pain over the foot. There was minimal local tenderness over the foot and minimal limp, but no other remarkable findings.

View the x-ray taken (**Figure 1**) and consider what your next steps would be. Resolution of the case is described on the next page.

## THE RESOLUTION



The correct diagnosis is a fracture of the first metatarsal.

The first metatarsal is distinctive, compared with the other metatarsals, in that it is shorter and wider; in addition, it lacks interconnecting ligaments between itself and the second metatarsal, which allows for independent motion.

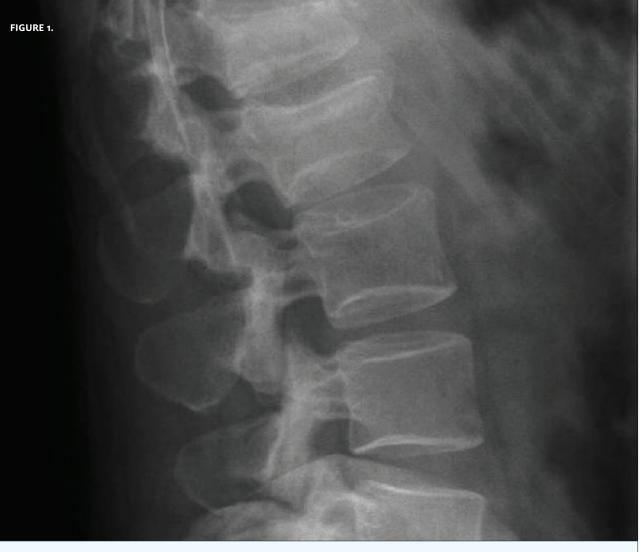
Three types of fracture predominate: avulsion, proximal shaft, and mid-shaft.

Any instability of the fracture requires operative fixation, which can take the form of a simple lag screw, plate (across the cuneiform) or, in the case of a comminuted fracture. an external fixator device. Accurate open reduction and bone grafting may be needed if the fracture extends into the articular surface. Lacking evidence of instability or of other fracture in the forefoot, a short leg plaster of paris (POP) cast may be applied, with weight bearing as tolerated. An alternative would be a removable Aircast boot, with the position of the foot in the cast plantigrade (on the soles) with no dorsal pressure on the first metatarsal.

Acknowledgment: Case presented by Nahum Kovalski, BSc, MDCM.



# INSIGHTS IN IMAGES CLINICAL CHALLENGE: CASE 2

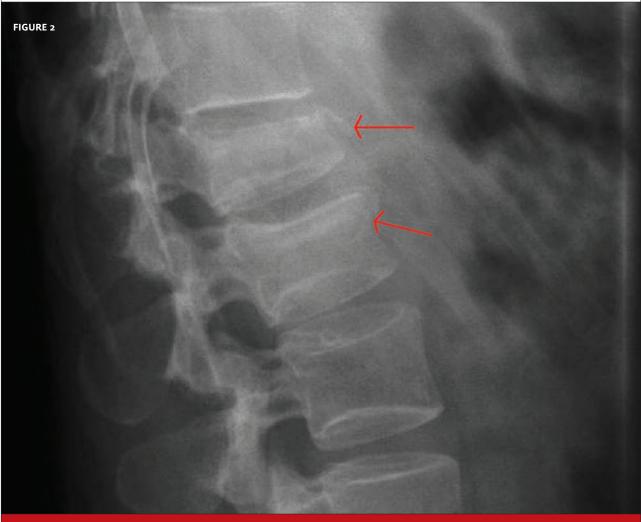


The patient is a 25-year-old male who presented to urgent care after falling from a height of two stories, landing flat on his feet. He is able to ambulate, though only with pain. In addition, he complains of back pain.

He is generally healthy, and no neurological deficit was found.

View the x-ray taken (**Figure 1**) and consider what your next steps would be. Resolution of the case is described on the next page.

#### INSIGHTS IN IMAGES: CLINICAL CHALLENGE



## THE RESOLUTION

The patient has a compression fracture of L1 and L2 vertebrae. He was transferred by ambulance to the hospital for CT evaluation.

Acknowledgment: Case presented by Nahum Kovalski, BSc, MDCM.