

# RADIOLOGY QUIZ

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## PROBLEM



➤ An 8-year-old boy presents to your urgent care center with severe pain in his right leg after falling on the playground from an elevated position. He is unable to bear weight on his right foot, and during the exam, all movements of his right leg elicit severe pain. Radiographs of the lower leg are obtained.

**What is your diagnosis?**

Turn page for answer ➤

## ANSWER



➤ The images of the right tibia and fibula reveal a minimally displaced closed oblique fracture through the midshaft of the tibia. Tibial fractures are the most frequent long bone fractures,<sup>1</sup> with midshaft fractures being relatively uncommon. Concerns with midshaft tibial fractures include malunion or nonunion, compartment syndrome, neurovascular injury,<sup>2</sup> and shortening of the fragments. Close follow-up with weekly radiographs to evaluate alignment is necessary in the early management of tibial fractures.

After it was determined that this patient was neurovascularly intact, oral analgesics were prescribed, and he was advised to avoid weight bearing and to rest and elevate his leg. A long leg posterior splint with elastic bandage wrapping was placed. After 1 week, localized swelling had resolved, and a long leg cast was placed for 4 weeks, then converted to a short leg cast for 2 more weeks for definitive management.

### REFERENCES

1. Norvell JG, Steele M, Cooper TM. Fracture, tibia and fibula. <http://emedicine.medscape.com/article/826304-overview>. Updated October 1, 2009. Accessed November 22, 2010.
2. Thompson JC. Leg/knee. In: Thompson JC. *Netter's Concise Atlas of Orthopaedic Anatomy*. Philadelphia, PA: Saunders; 2002:199-242.

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