

## PROBLEM

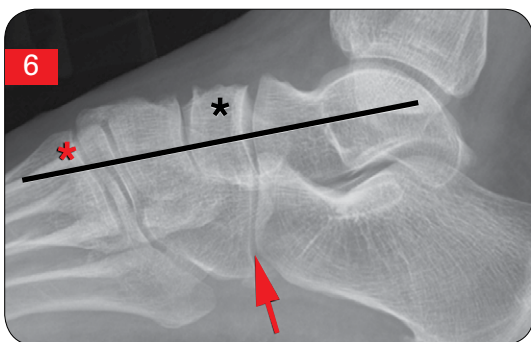
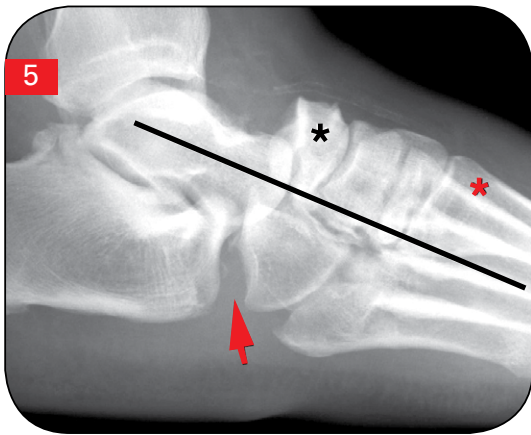
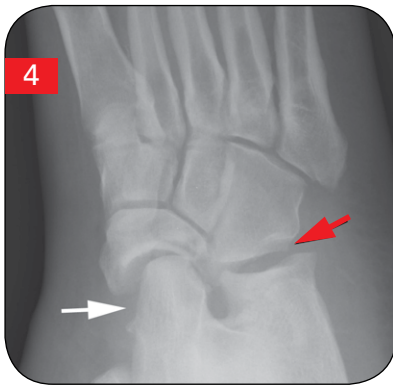


>> A 45-year-old man with multiple medical problems, including diabetes and peripheral neuropathy, presents to the ED with pain in his right foot after a twisting injury incurred while he was stepping out of his automobile. He is able to ambulate on presentation. Radiographs of the foot are obtained (Figures 1-3).

**What is your diagnosis?**

Turn page for answer >>

## ANSWER



The patient has fractures and subluxations at the midtarsal joint. This joint, which includes both the talonavicular and calcaneocuboid articulations, is known as *Chopart's joint*. François Chopart (1743-1795) was a French surgeon who performed amputations through this joint for distal foot necrosis.<sup>1</sup> Fractures and dislocations occurring at the midtarsal joint are termed *Chopart injuries*. These injuries typically occur from high-energy trauma and are less common than injuries to the adjacent tarsometatarsal (Lisfranc) and subtalar joints.<sup>2</sup> Like the more common Lisfranc fracture-dislocations, Chopart injuries may occur with lower energy in patients with neuropathy.

It can be difficult to detect Chopart injuries on radiographs. Targeted assessment for these injuries should be included in the evaluation of radiographs of the foot. As Figure 4 demonstrates, radiographic findings include widening of the tibiotalar joint (white arrow) and the calcaneocuboid joint (red arrow). On the lateral view (Figure 5), the subluxation may be detected: a line drawn through the talus does not intersect the navicular (black asterisk) or the first metatarsal (red asterisk). This view also shows widening of the calcaneocuboid joint as well as small osseous fragments within the joint (arrow). A radiograph from a different patient (Figure 6) demonstrates the normal relationships.

Prompt detection of Chopart injuries is important; midfoot instability and progressive deformity will result from failure to treat these injuries in a timely manner. This was illustrated in the case patient, whose injury was not diagnosed on initial presentation. When he returned for follow-up 1 month later, oblique

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## ANSWER



and lateral views of the hindfoot/midfoot (Figures 7 and 8, respectively) demonstrated increased deformity. The patient subsequently underwent internal fixation.

### REFERENCES

1. Hunter TB, Peltier LF, Lund PJ. Musculoskeletal eponyms: who are those guys? *Radiographics*. 2000;20(3):819-836.
2. Richter M, Wipperman B, Krettek C, et al. Fractures and fracture dislocations of the midfoot: occurrence, causes, and long-term results. *Foot Ankle Int*. 2001;22(5):392-398.