

Careful diagnosis helps fracture patients put best foot forward

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Located in areas of the foot that can be hard to visualize with X-rays and other imaging techniques, injuries to the ankle area of the foot are the most frequently misdiagnosed of all foot fractures. Delayed diagnosis can have serious consequences, sometimes leading to permanent disability. A new review article published in the December 2009 issue of *The Journal of the American Academy of Orthopaedic Surgeons (JAAOS)* shows that a detailed description of the injury, recognition of subtle diagnostic imaging clues, and targeted physical exam can help avoid long-term injuries and disabilities that may occur as a result of these uncommon fractures.

"The talus is a very important bone in the [ankle](#)," said study co-author Joseph Kou, M.D., attending surgeon at Muir Orthopaedic Specialists in Walnut Creek, Calif. "Injury to the talus and its surrounding structures will significantly affect the function of the foot and ankle and can lead to long term disability if not treated properly."

Foot and ankle injuries involving the talus (or peritalar region) often occur as a result of:

- car accidents or other high-impact trauma; and
- can also occur as a result of low-impact events, such as twists and falls.

When treatment of these injuries is significantly delayed, permanent disability can occur, and surgical intervention may be necessary to restore function.

Patients play a crucial role in aiding physicians during the diagnosis process, Dr. Kou added. Men and women who suffer an ankle injury should inform their physician about unusual or persistent symptoms, including:

- persistent pain that is not improving;
- the inability to bear weight; and
- severe swelling, bruising, and blistering of the skin.

Patients should also be sure to give their treating physician a complete and accurate description of how the injury occurred, and should identify the area of the foot and ankle where the pain is most severe, two factors that can play a key role in helping a physician make the correct diagnosis in these uncommon injuries.

The difficulty in accurately diagnosing these injuries is due to two primary factors, Dr. Kou said.

"The foot has complex three-dimensional anatomy that can be difficult to fully assess on conventional two-dimensional radiographs, such as X-ray," he noted. "Also, while most [foot](#) and ankle injuries involve innocuous sprains, a small percentage of these injuries are significant. The rarity of these injuries results in frequent misdiagnosis."

"The key to proper diagnosis is, first and foremost, knowledge of the existence of these injuries," he noted. "Physicians also need to be aware

of subtle radiographic clues that can indicate injury of the peritalar region."

By following these guidelines, the study authors say peritalar injuries can be identified and treated earlier, avoiding the need for surgery down the road.

"A delay in diagnosis can adversely affect the long-term outcome of the injury," Dr Kou noted. "Better knowledge and awareness of the existence of these talus injuries throughout the orthopaedic community will decrease the incidence of missed diagnosis, and significantly improve patient outcomes."

Source: American Academy of Orthopaedic Surgeons ([news](#) : [web](#))

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