



ANKLE (v.2) FRACTURES

#EM3
East Midlands Emergency Medicine Educational Media

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ANKLE X-RAYS: THINGS TO CONSIDER

Anterior Posterior (AP) view

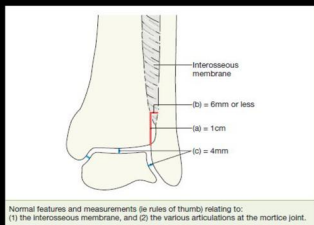
The malleoli – are there any fractures?

Tibiofibular interosseous membrane – suggestion of a rupture?

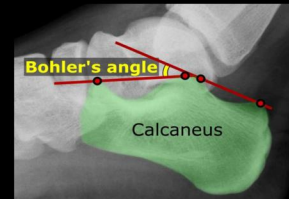
Talus dome – smooth? Medial and lateral processes (*i.e. tubercles*) Any fragmentation?

Joint width – does any part exceed the normal 4 mm?

Epiphysis & growth plates in children – normal?



Lateral view



Tibia cortices – intact? Is the Articular surface smooth?

The fibula – are there any oblique fracture lines?

Talus – neck intact? Does it articulate normally with the navicular bone?

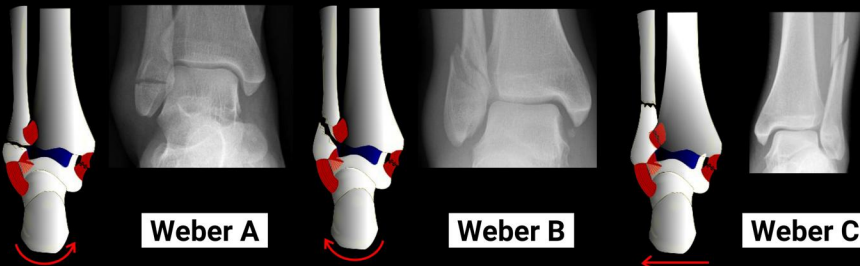
Calcaneum – any fracture lines? Is the Bohler's angle normal? Is the anterior process normal?

5th Metatarsal Is this fractured?

ANKLE FRACTURES: INJURIES NOT TO MISS

Malleolar fractures

These are common injuries and the **Weber classification** can help when thinking about ongoing management...



below the level of the tibiofibular syndesmosis. Usually stable and can be managed conservatively.

at the level of the tibiofibular syndesmosis. Usually unstable, and often need surgical intervention.

above the level of the tibiofibular syndesmosis. Unstable and needs surgical intervention.

Base of 5th Metatarsal fractures



Caused by an inversion injury as the peroneus brevis pulls on the bone in forced inversion.

Always review the lateral XR carefully.

Bimalleolar & Trimalleolar fractures



Both fractures are **unstable** and need surgical intervention.

Calcaneum fractures



Calcaneal fracture also known as the "Don Juan" or "Lover's Fracture" (*i.e. after jumping out of windows, escaping from their lovers*). Typically occurs when falling from heights and landing on your heels.

Unstable fractures, often need surgical fixing.

Infrequent BUT important injuries

Maisonneuve fracture



Proximal fibula spiral fracture and unstable ankle injury. Will need surgical input.

Tillaux fracture



Salter-Harris III fracture through the anterior lateral aspect of the distal epiphysis.

