

The structure of the ankle reminds of a carpenter binding. The width of the trochlea tali ideally fits into the yoke, made of the endings of the tibial and fibular bones. Sprain injuries are the most frequent injuries among sportsmen and people who are physically active.

There're 13 muscles near the ankle, yet none of them is attached to the talar bone. The talar bone is moved thanks to being drawn by the ligaments and sustains the movement from the tarsal bones and the bones of the lower leg. In the ankle joint plantar and dorsal flexion movements take place. The eversion and inversion movements take place in the talo calcaneal joint.

The illnesses in this site occur due to the imbalance between the strong, long shin muscles and the short and weaker muscles of the foot. The calcaneal bone is indispensable for the correct functioning of the ankle as it works as the lever arm. We're interested in the ankle ligament complex made up of the ATFL, CFL on the lateral side and the deltoid ligament on the medial side.

Ankle sprain

I guess this is the most frequent injury of active people, which is often neglected and not fully treated. In 30% of cases it's a reason of later instability and recurring "giving way". The injury is usually done in the inversion mechanism (90% of cases) - the foot goes under the lower leg towards the inside; the lateral ankle goes to the outside. This might happen during running, jumping, or walking on uneven ground or walking up/down the stairs. Here the following structures are injured: the ATFL (which stabilizes the joint from the front and rotationally), the CFL (which secures lateral stabilization) together with the articular capsule. Quite often during this kind of injury the antero-lateral part of the cartilage is injured and/or osteochondral fracture may occur. Pain ailments and swelling occur in the anterior and lateral (external) side. Depending on the intensification of the ailments we differentiate the following stages:

- 1st degree - small stretching or tearing of the ligaments, no symptoms of instability or instability is hard to sense; slight pain, swelling and limitation of the range of motion.
- 2nd degree - partial tear of the ligament fibres, slight instability, noticeable pain, swelling and limitation of the range of motion.
- 3rd degree - complete discontinuity of the ligament fibres, extensive swelling and pain.

We pose the diagnosis based on the doctor's examination together with an X-ray test. If cartilage damage is suspected, the MRI test should be done.

[Ankle - treatment \(find out more\)](#)

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