

Pseudoarthrosis

A **knock-on** (*Pseudoarthrosis*) is characterized as a disorder of fracture healing, when bone fragments do not fuse together even in a time **twice** as long as the normal course of healing (until then, we are only talking about prolonged healing) *prolonged healing* .

The fracture line is filled with **fiber** and surrounded by a fibrous **sheath**, that contains **fluid**.

Classification according to clinical findings

- **weak**: unstable, with great pathological mobility , cannot bear loads
- **solid**: without pathological momentum, withstands loads

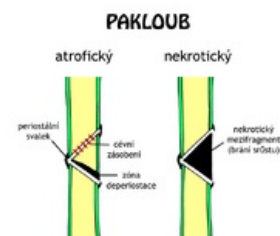
Classification according to Čech and Weber

1. **Vital** – insufficient stabilization and immobilization of the fracture, **sufficient blood supply** and tendency to healing.
 - *Hypertrophic*;
 - *normotrophic* – occurs mostly in unstable osteosyntheses;
 - *oligotrophic* – usually arises from overextended skeletal traction.
2. **Avital** – **insufficient blood supply**, sclerotization or osteoporosis of bone ends.
 - *Dystrophic*;
 - *necrotic*;
 - *defective*;
 - *atrophic* .

The most serious form is an **an infected joint** – it occurs in all the above-mentioned forms and can lead to limb amputation. A special example is the **tibial joint** in fractures of the lower leg, where the fibula heals earlier and acts as a spacer (similarly, earlier healing of the ulna acts in fractures of the radius).



Hypertrophic tibial arch



Atrophic and necrotic joint

Resources

Related articles

- Fracture healing disorders
 - Malunion
 - Prolonged healing

Resources

- PASTOR, Jan. *Langenbeck's medical web page* [online]. Langenbeck, [cit. 12.4.2010]. <<https://langenbeck.webs.com/>>.