

# Clavicle fractures

- Common fractures usually caused indirectly by a fall on the shoulder (sports injuries)
- most commonly fractured in the middle third
- typical dislocation of the medial fragment upwards (traction of the m. sternocleidomastoideus), the lateral fragment downwards (traction by the weight of the limb), and then the approximation of both fragments by traction of the m. pectoralis minor

## Classification (according to frequency of involvement) - according to Allmana

- Type 1 – fractures of the middle third
- Type 2 – fractures of the lateral third
- Type 3 – fractures of the medial third



Fracture of the right clavicle

## Clinical signs

- pain limiting movement in the shoulder joint
- drooping shoulder
- antalgic HK posture
- visually apparent dislocation
- palpation crepitations and pathological mobility
- haematoma (in older fractures due to gravity, it descends to the breast area)
- may be open fracture (often a small perforation of the skin by a fragment)

## Complications

- brachial plexus injury (examine peripheral innervation)
- injury to blood vessels (a. subclavia – examine pulse on a. radialis, v. subclavia – signs of venostasis)

## Diagnostics

- X-ray in anteroposterior projection, possibly an oblique image from the bottom upwards, which better informs about the extent of the dislocation

## Treatment

### Conservative (predominant)

- shoulder retraction dorsally and caudally, permanent posterior traction with a figure of eight bandage or Delbet rings
- Desault's bandage: extensive fixation of the upper limb with the palm of the hand to the gastrocnemius with support under the arm
- after fixation, follow-up X-ray
- immobilization for 4 weeks (children 2-3 weeks)
- healing may be accompanied by a more prominent muscle due to relative restlessness during healing (cosmetic problem - diminishes with time)

### Surgical (mainly for type 2 fractures - lateral end of clavicle)

- percutaneously inserted K wire (may be supplemented with a loop in the tension cerclage) - long oblique fractures
- cannulated spongiosa screw - transverse or short oblique fractures
- splint adapted to the shape of the clavicle - reoperation, treatment of subluxations

## References

### Related articles

- Clavicula
- Bones of the upper limb

### Source

- PASTOR, Jan. *Langenbeck's medical web page* [online]. [cit. 2022-17-12]. <<http://langenbeck.webs.com>>.

