

Types of joint injuries and principles of treatment

Distortion (sprain)

Distortion (sprain) occurs through indirect action or direct violence when the *physiological range* of motion in a given joint is exceeded.

Clinical picture

- partial rupture or distension of the capsule or ligaments. It can also be hemarthroses
- the joint remains **stable**
- soreness, swelling, restriction of movement, hematoma

Therapy

- **puncture** a larger effusion, **evacuate** the hematoma and **flush** the cavity with cold saline or mesocaine (in case of severe pain)
- **immobilisation**, according to disability, lighten the joint, give NOA, **ice**
- we can indicate arthroscopy for the knee



Ankle sprain

Subluxation

A **subluxation** is an incomplete dislocation. It is caused by more violence than distortion. The bones are in a so-called **subluxation position**, when the joint surfaces only partially touch.

Clinical picture

- Injury to the capsule and ligaments is greater than with distortion.
- The joint is slightly **unstable**, but **spontaneous reduction** often occurs.

Therapy

- Rigid **immobilisation** is necessary for a period of 3-6 weeks.
- Relief, **icing**, NOA
- In more difficult cases - **operative** revision with ligament suture.



Subluxation position of the distal phalanx

Luxation

Luxation (dislocation) occurs in case of significant force on the joint (possibly less force in case of predisposition), a serious disorder of congruence occurs. Reduction can be spontaneous, but usually the joint is **dislocated**.

According to the mechanism of formation, we distinguish sprains:

- Traumatic - caused by sudden and strong violence that breaks the stabilizing fibrous structures of the joint.
- Habitual - arises as a result of primary or secondary functional disorders or anatomical structure of the joint.
- Pathological - in case of long-term changes in the joint (damage of the joint surfaces during paralysis, loosening of the joint capsule during chronic inflammation).
- Congenital - basis in the presence of congenital dysplasia (hip).

Clinical picture

- swelling, hematoma, significant pain
- we monitor innervation, blood supply to the periphery, momentum
- we are investigating whether it is a dislocation fracture on the X-ray

Therapy

- perform under local or general anesthesia
- after repositioning, we check stability and detect damage to soft tissues



X-ray of dislocation of the right hip (of a child)

- **immobilize** the joint
- subsequent **rehabilitation is important**



X-ray of dislocated shoulder

Links

Related articles

- Injury
- Regional anesthesia, blockades
- [[General anesthesia]

Reference

- BENEŠ, Jiří. *Studijní materiály* [online]. [cit. 2009]. <<http://jirben.wz.cz>>.