

UNIT 11.

FRACTURES

A fracture is a crack or break in a bone. It usually occurs as a result of a traumatic injury (fall, car accident), where a bone is affected by great mechanical force. Fractures are also common in sport, especially in contact games such as football and rugby. Most frequently they affect the wrists, hands, collarbones, ankles and feet. Sports which involve repetitive movements, e.g. long distance running, may lead to the so-called stress fractures, which develop over a period of time.

Other types of fractures include:

1. Closed fracture: a bone is broken but there is no open wound in the skin.
2. Open (compound) fracture: one end of the bone pierces the skin.
3. Pathological fracture: a bone breaks spontaneously as a result of disease.
4. Comminuted fracture: a bone is shattered into several fragments at the site of the break.
5. Simple fracture: a bone breaks in one place.
6. Greenstick fracture: a bone bends and partially breaks. It is common in children.
7. Impacted fracture: one fragment of a broken bone is forced into the other section of it.
8. Displaced fracture: fragments of a broken bone are shifted and separated from each other.

The most common symptoms of a fracture are pain, tenderness, swelling, bruising, and restriction of movement. Displaced fractures normally cause deformity, and open ones – break the skin and underlying tissues.

Treatment

If a fracture is not displaced, it can be immobilised by a plaster cast, usually for 4–8 weeks. A displaced fracture needs to be reduced, or put back into its anatomical position, before it is casted. It sometimes requires surgical stabilisation. More complex fractures may be fixed using pins or a plate and screws.

WORDLIST

aid /eid/	– pomoc
assessment /ə'sesmənt/	– ocena
bracing /'breɪsɪŋ/	– gorsetowanie, użycie stabilizatora
bruising /'bru:zɪŋ/	– zasinienie
cast /kɑ:st/	– odlew, opatrunek (gipsowy), gipsować
collapse /kə'læps/	– zapaść się
comminuted fracture /'kɒmɪnju:tɪd 'fræktʃə/	– złamanie wielo-odłamowe
crack /kræk/	– pękać, pęknięcie
crutch /krʌtʃ/	– kula
displaced fracture /dɪs'pleɪst 'fræktʃə/	– złamanie z przemieszczeniem
gait /geɪt/	– chód
greenstick fracture /'gri:nstɪk 'fræktʃə/	– złamanie zielonej gałązki
immobilise /ɪ'məʊbəlaɪz/	– unieruchomić
impacted fracture /ɪm'pæktɪd 'fræktʃə/	– złamanie zaklinowane
pierce /pɪəs/	– przekłuć
pin /pɪn/	– drut (Kirschnera)
plaster /'plɑ:stə/	– gips
plaster cast /'plɑ:stə kɑ:st/	– opatrunek gipsowy
plate /pleɪt/	– płytką
repetitive /rɪ'petətɪv/	– powtarzająca się
screw /skru:/	– śruba
site /saɪt/	– miejsce
shatter /'ʃætə/	– roztrzaskać
shift /ʃɪft/	– przesunąć
so-called /,səʊ'kɔ:ld/	– tak zwany
strain /streɪn/	– obciążenie

Rehabilitation

When the healing process is nearly complete, a course of physiotherapy is normally recommended. Post-fracture physiotherapy involves:

1. Muscle assessment: one of the results of the injury and immobilisation is muscle weakness. Physiotherapists plan an exercise programme to restore muscle length, strength, mass and balance. This promotes functional ability.
2. Joint mobilisation: joint stiffness also occurs when a limb cannot move for several weeks. Therapists improve and restore range of movement in the affected joints.
3. Massage: in a plaster cast muscles will develop tight bands and trigger points. Massage may release them, and thus reduce pain and restore muscle length.
4. Heat and electrotherapy: they also relieve pain and help to restore muscle length.
5. Magnetotherapy: magnetic field reaches the bone, stimulates osteoblasts and regenerates bone tissue.
6. Gait re-education: if necessary, physiotherapists can teach patients how to use crutches and other gait aids.

EXERCISES

I. Answer the questions.

1. What are the causes of a fracture?
2. What is the difference between a closed and open fracture?
3. What is the difference between a simple and comminuted fracture?
4. Which fracture is common in children? How is it different from other types?
5. What are the symptoms of a fracture?
6. How can you immobilise a fractured bone?
7. How can physiotherapy improve the condition of the muscles after fracture?
8. How does post-fracture physiotherapy help to return to normal life?

II. Decide whether the sentences are true or false. Correct the false ones.

1. A stress fracture is a result of a traumatic injury.
2. There is no difference between a compound and an open fracture.
3. In a greenstick fracture there is a complete break in the bone.
4. In an impacted fracture two fragments of the broken bone become separated.
5. Sometimes an operation is required to reduce a broken bone.

stress fracture /'stres 'fræktʃə/ – złamanie stresowe, przeciężeniowe

tenderness /'tendənəs/ – tkliwość

thus /ðʌs/ – zatem, w ten sposób

trigger point /'trigə ,pɔɪnt/ – punkt spustowy

vertebral compression fracture

/'vɜ:tɪbrəl kəm'preʃn 'fræktʃə/ – złamanie kompresyjne kręgu