BONE FRACTURE

BASIC INFORMATION

DESCRIPTION

Bone fracture is a break in a bone. Different types of fractures can occur depending on the severity. A complete fracture means the bone is broken all the way through. An incomplete fracture means the bone is cracked. An open (or compound) fracture means the fractured bone sticks out through the skin. A stress fracture is a small crack in a bone due to overuse.

FREQUENT SIGNS & SYMPTOMS

- Pain, swelling, or tenderness near the fracture site.
- Paleness and deformity (sometimes).
- Bleeding or bruising at the site.
- Weakness.
- Cannot bear weight.
- Numbness, tingling, or paralysis below the fracture (rare; this is an emergency).

CAUSES

The bone can't withstand a physical force exerted on it.

RISK INCREASES WITH

- Activities that carry the risk of injury.
- Reckless behavior that increases risks of an accident.
- Age. Older adults have bones that are more fragile and also tend to have more falls.
- Osteoporosis and osteopenia.
- Tumors of the bone or bone marrow.
- Sports activities.
- Stress fracture risk factors include: females, menstrual problems, poor physical condition, running or jumping sports, loss of bone density, and overweight.

PREVENTIVE MEASURES

- May not always be preventable.
- Avoid high risk behaviors (e.g., drinking and driving).
- Wear seatbelts when driving or riding in a vehicle.
- Wear proper protective gear for sports.
- Maintain healthy bones with diet and exercise. Talk to your health care provider about taking calcium and vitamin D supplements.
- Maintain a safe home. Take measures to prevent falls.

EXPECTED OUTCOMES

Usually curable with treatment. Healing time varies. Recovery is complete when there is no bone motion at the fracture site, and x-rays show complete healing.

POSSIBLE COMPLICATIONS

- Failure to heal (non-union).
- Shock from blood loss.
- Travel of a fat embolus (clump of fat cells) from the injury site to the lungs or brain.
- Obstruction of nearby arteries.

DIAGNOSIS & TREATMENT

GENERAL MEASURES

Call 911 for help. Give first-aid treatment for bleeding, cover any open wounds, and move the patient as little as possible. Try to immobilize the area. Don't try to set the bone. Arrange for transport to a hospital or emergency room.

Your health care provider will do a physical exam of the injured area. X-rays will be done to confirm the bone fracture. In some cases, other tests are needed.

Treatment will depend on the specific fracture.

Bone ends that have been displaced are maneuvered back into place (reduction).

Most fractures require casts, splints, or a special brace for healing. Crutches or other aids may be used to walk.

Hospital care may be needed for severe fractures.

Surgery may be needed. The fracture may be repaired with rods, plates, or screws.

MEDICATIONS

Pain relievers and muscle relaxants may be prescribed.

ACTIVITY

Immobility of a bone for a long period of time can cause loss of muscle mass, stiffness in nearby joints, and edema (excess fluid in the tissues). Begin to use the affected part as soon as is safely possible.

Physical therapy may be prescribed to maintain flexibility of the joint and provide strength to the muscles.

Resume normal activities as soon as symptoms improve and your health care provider advises you to.

DIET

No special diet.

NOTIFY OUR OFFICE IF

You or a family member has symptoms of a bone fracture.

The following occur after treatment:

- Swelling above or below the fracture site.
- Severe, persistent pain.
- Blue or gray skin below fracture site (e.g., in fingernails); numbness or loss of feeling below fracture site.