

Bone Fracture: Causes, Types and Therapy

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A fracture is a medical condition in which there is partial or complete dissection in bone progression. In severe cases, the bone may be broken into several pieces. A bone fracture may be the result of the impact of high energy or stress, or a minor traumatic injury caused by certain medical conditions that weaken the bones. Damage to nearby structures such as nerves, muscles or blood vessels, the spine, and nerve roots, or cranial contents may cause other symptoms and signs. Other fractures can lead to serious complications, including compartment syndrome. If left untreated, compression syndrome may require surgery of the affected limb. Other problems may include non-union, when a broken bone fails to heal or malunion, when a broken bone heals in a paralyzed manner. Another type of malunion is bone damage, most commonly followed by femoral and tibial fractures. Fracture problems can be divided into three broad categories, depending on the time of their occurrence. The natural process of healing a fracture begins when the injured bone and surrounding tissue bleed, forming a hematoma. The blood thickens to form a blood clot between the broken pieces. Within a few days, blood vessels grow into a gel-like matrix of blood cells. New blood vessels bring the phagocyte into place, gradually removing the inactive substance. Blood vessels also carry fibroblasts to the walls of the arteries and these replicate and produce collagen fibers. In this way, blood clotting is replaced by a collagen matrix. Collagen's rubbery consistency allows the bone fragments to move only a small amount unless strong or persistent force is applied. There are several factors that can help or hinder the healing process of bones. Cigarette smoking disrupts the bone healing process, and adequate nutrition will aid the bone healing process. There are different types of fractures: Crus fracture is a fracture of the lower leg bones which means either of the tibia or fibula; Tibia fractures including Pilon fracture, Tibial plateau fracture, Bumper fracture, Segond fracture, Gosselin fracture, pediatric fracture. Fibular fractures include

Maisonneuve fracture, Le Fort fracture fracture, Bosworth fracture. Tibia and fibula joint fractures include Trimalleolar fracture, Bimalleolar fracture, Pott fracture. Foot fractures include Lisfranc fracture, Jones fracture, March fracture, Cuneiform fracture, Calcaneal fracture, Toe fracture. Some sports have a higher risk of fractures compared with normal sports injuries. Defensive measures depend to some degree in a particular sport, but learning the right technique, wearing protective equipment and having a realistic balance of personal skills and limitations can help reduce the risk of fractures. Orthopedic treatment is broadly classified as surgery or maintenance, the latter basically refers to any non-surgical procedure, such as pain control, body function or other non-surgical stability. The same category is open against closed treatment, where open treatment refers to any treatment where the fracture site is surgically opened, whether the fracture is open or closed fracture. Since orthopedic surgery is a natural procedure that will occur frequently, fracture treatment is intended to ensure the optimal function of the injured part after healing. Fractures are usually treated by restoring broken bone fragments in their natural state, retaining those positions while the bone heals. Separation results in the same effect as throwing in broken children a radio with little flexibility. Surgical techniques for treating fractures have their risks and benefits, but in most cases, surgery is performed only if conservative treatment fails, most likely to fail, or it may cause adverse side effects.

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