Delta-Cast[®]

Classification of fractures

Factsheet



Classification of fractures

Factsheet



Effectively assessing injuries and patients is vital to identify complications that may affect bone healing. This factsheet summarises the different types of fracture.

Classifying fractures:

Fractures are breaks in bones, whether across the entire bone or a greenstick fracture on one side of the bone. They are classified either descriptively or physiologically.



Descriptive classification

Clinical classification- patient examination, or X-ray classification- the appearance of the bone and direction of the break.

Physiological classification

The factors that made the bone susceptible to breaking in context and health.

Types of fracture:



Simple or Closed

A fracture is classified as simple or closed when the surrounding soft tissue remains intact with no wounds. There may be soft tissue damage. The fracture may still cause injury to nerves, arteries, or tendons in the injury zone; therefore, neuro-vascular status should be assessed before and after cast application, which is a mandatory part of fracture assessment.





Sometimes referred to as compound or complex, an open fracture is identified by a skin wound that may connect to the fracture site. The size of the skin wound does not indicate the extent of the fracture, muscle trauma or contamination. Any fracture with a skin wound should be assumed to be an open fracture to limit the risk of infection, which is hard to eradicate if it becomes established in the bone. Open fractures can be direct - where the object that breaks the skin continued and breaks the bone or indirect, where the bone is bent and breaks through the skin.

Delta - Cast[®]

Classification of fractures

Factsheet

Types of fracture

In addition, open and closed fractures, broken bones can be further sub-classified as:

Transverse

A straight and horizontal break completely across the bone. The ends of the broken bone can be displaced and pulled apart by the muscles pulling on the bone and angulated, usually due to a direct blow. Careful assessment of the bone angles should be considered for successful reduction.

Oblique and Spiral

A complete break at an angle across the bone. A spiral fracture or torsion happens diagonally and is longer than it is wide, resembling a corkscrew. Spiral fractures result from a twisting force or impact, such as a skiing or snowboarding accident. This fracture is most common in long bones such as the femur and tibia.

97	
\square	

Impacted

A complete fracture where one fragment of bone goes into another, rendering the fracture line indistinct and making assessment difficult. Often occurring in elderly patients after a fall, where the ends of the bone are driven into each other by the blow or muscle contraction force. A typical example is the Colles' fracture of the wrist because of a fall on an outstretched hand.

Greenstick or Torus

An incomplete fracture where the bone is broken partway across on the bone's outer edge, and the inner side is bent but intact. A torus fracture occurs when one side of the bone may buckle, these fractures are seen in children whose bones are more pliable.

Comminuted

When the bone is broken into many pieces, typically, the break is in three or more pieces, the bone fragments remain at the fracture site and receive inadequate blood supply and are slow to heal, sometimes requiring further surgery. The force of creating a multiple break causes significant soft tissue damage and swelling.

Essity T/A BSN medical Limited PO Box 258 • Willerby • Hull • HU10 6WT www.medical.essity.co.uk Tel: 01482 670100 • Fax: 01482 670111 E-mail: orders.uk@essity.com