

R49256

Four Fractures

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These x-ray images represent four of the more common types of bone fractures seen by doctors. All four fractures, or broken bones, are shown on the femur bone or 'thigh bone.' The femur is so strong, a break is often the result of a major trauma, such as a strong blow to the bone, a serious fall, or a motor vehicle accident. In elderly or ailing patients, the bone might be weakened by osteoporosis, infection, or possibly a tumor.

These four fracture images represent complete fractures, where the bone is literally broken into two parts. In a less serious greenstick fracture the bone is "cracked" and does not break completely. Greenstick fractures are often seen in pediatric patients.

The treatment of a femur fracture most often requires surgery. One common surgical procedure involves a metal rod inserted into the bone, and secured by screws. The rod can safely remain in the body for life but is occasionally removed if needed. When a bone is broken, there is a limited window of opportunity for a doctor to best treat the injury because the healing process begins immediately after the break.

This collection of x-rays are best viewed when combined with an external light source, such as Roylco's Educational Light Cube, a ashlight, or even a sunny window. "Reading" or looking over the images on a lighted display simulates the same technique many surgeons use for diagnosing injuries. In other words, students can view details like a doctor would!

Fracture #1 Transvers:
In a Transverse Fracture, the bone is broken perpendicular to the bone itself and is separated into two pieces.



Fracture #2 Oblique:
An Oblique Fracture occurs diagonally across the bone at an angle. These breaks are more likely to be 'open' or 'compound' meaning that the bone fragments break through the skin.



Fracture #3 Spiral:
A Spiral Fracture is the result of the bone twisting, creating a spiral pattern at the site of the break.



Fracture #4 Comminuted:
A Comminuted Fracture is one where the bone is crushed, or splintered. There are at least three pieces, and often many splinters in a comminuted fracture. The treatment and repair is more complicated than other types of fractures.



Credit: Special thanks to Dr. James C. Mills III, MD, FACS for providing the necessary knowledge, practical explanations and continuous support in insuring the integrity and completion of the project.

