ROCKFORD ORTHOPEDIC

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Pediatric Femur Fractures

The femur or "thighbone" is the largest bone in the human body. Fracturing or breaking the thigh bone in children usually requires a significant amount of force. These injuries are usually the result of falls, motor vehicle accidents or sporting injuries. Management of these injuries varies widely based on the age of the child and the location of the fracture in the bone. Most fractures of the femur heal well and allow children to resume sports and normal activities.

Fracture treatment based on age

0-6 months: Fractures in infants can typically be managed without surgery. The leg is usually immobilized with either a cast for fractures of the lower end or a special brace called a Pavlik harness for fractures in the mid to upper region.

6 months – 4: Fractures in this age group usually involve the middle portion of the bone. The most common treatment in this age group is a spica cast. This is typically put on in the operating room and the fracture is realigned using xrays. The cast comes around the abdomen and down onto both legs. A hole is usually created in the middle to allow for diaper changes. The cast is typically left in place for 5-6 weeks and removed in the office.

Age 4 – 12: Most fractures of the femur in this age group are treated surgically with some form of internal fixation. The fracture is realigned and held in position with flexible rods, plates and screws or an external fixator. The choice of implant depends on the location of fracture and the presence of comminution "multiple pieces".

Age 12 and older: Injuries in older children and adolescents are often managed with a metal rod placed down the center of the bone, similar to adults. The place that the rod enters the bone is slightly different than adults, to protect the blood supply to the bone at the hip.

Several examples of fixation are shown below.

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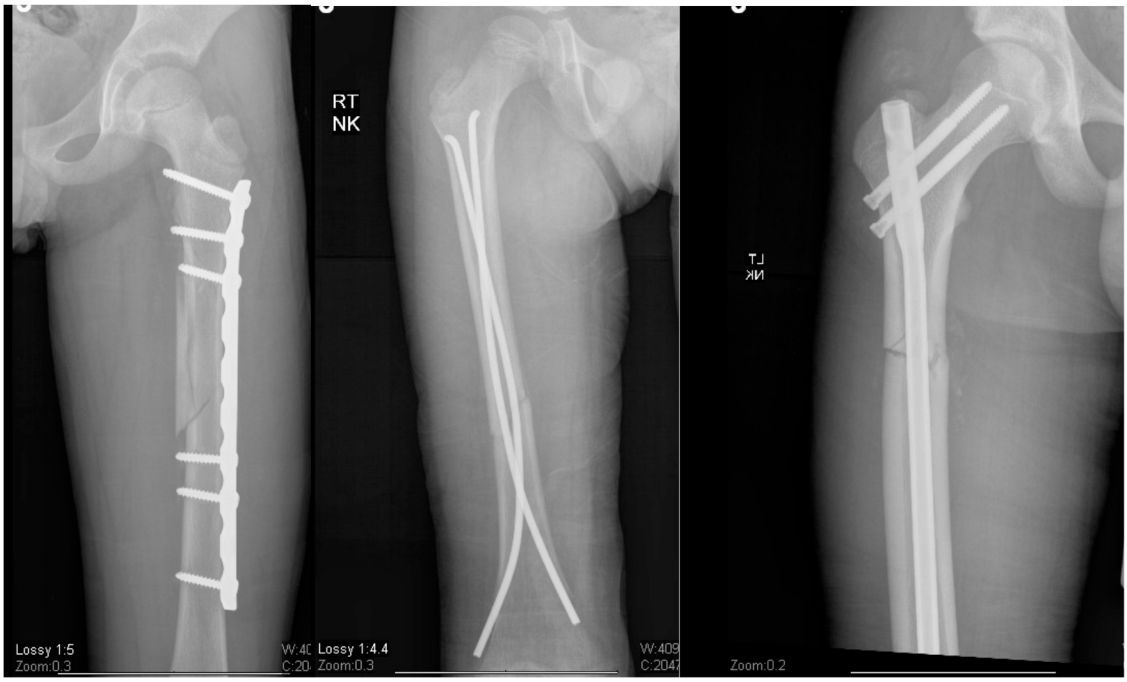

Complications after treatment of femur fractures are uncommon. The most commonly encountered complications are leg length discrepancy, rotational malalignment, refracture and infection. Additional surgery is often required to remove the implants after the fracture has healed.