

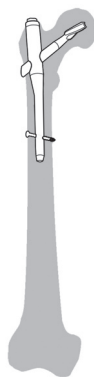
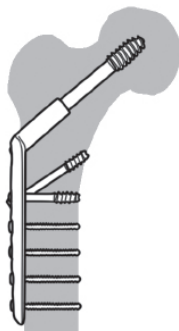
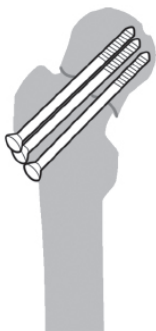
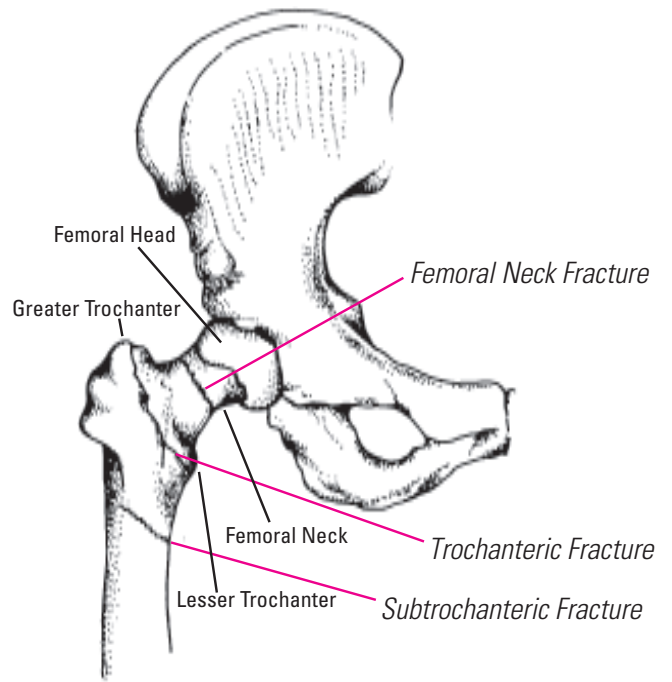
## PROCEDURE BASICS

*"What a supply chain executive needs to know on one page"*

### Hip Fractures

Hip fractures is the most common fracture hospitalized and are most frequently seen in the elderly. According to Orthopedic Network News, approximately 90% of hip fractures are treated with some sort of implant. The optimum treatment of hip fractures will depend on a variety of factors, including the location of the fracture, the expectations of the patient, the availability of skilled resources and training of the surgeon.

Although there are many different types of hip fractures, the treatment differences center around (1) femoral neck fractures, (2) Trochanteric fractures, and (3) Sub-trochanteric fractures. Below are some of the specific types of devices used to treat hip fractures along with typical usage.



**Hip Pins**  
Used in non-displaced femoral neck fractures. AKA Cannulated hip pins.

**Hip Screw**  
Plate on outside of femur with screw into head. Screws also through plate into femur.

**Troch Nail**  
Nail down center of femur. Most common is Gamma 3. Most commonly used construct in hip fractures

**Femoral Nail**  
Longer nail stabilized at the end of the femur. Often used for sub-trochanteric fractures.

**Modular Endoprosthesis**  
Separate stem and modular head, shown with head adaptor.

**Bipolar Hip**  
Stem/head fit inside smooth shell. Patient's acetabulum stays intact.

**Total Hip**  
Acetabulum is replaced with shell, otherwise same components as bipolar hip

# Types of Hip Fractures

# Surgical Treatments for Hip Fractures

## Femoral Neck Fractures

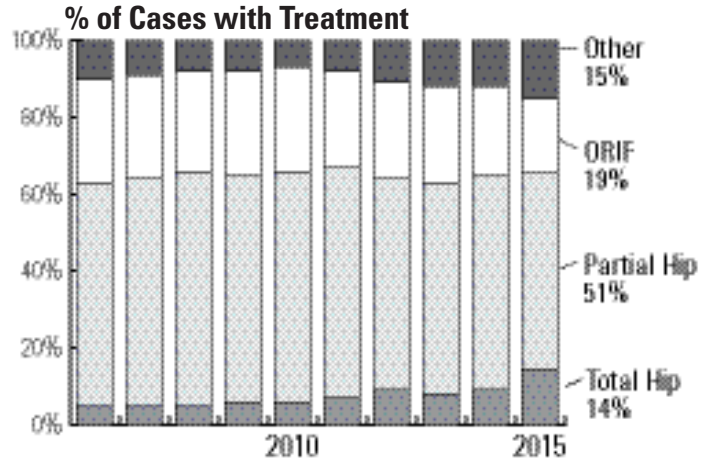
Femoral neck fractures are the most common of the “little old lady” fractures, most often caused by a fall on the buttocks. Treatment method depends on a variety of issues, including whether the fracture has been displaced or not, the patient’s activity level, surgeon’s preference with the technology, and the expectations for longer term rehabilitation. If the fracture has compromised the blood supply to the femoral head, the surgeon may opt for a total or partial hip.



Femoral Neck Fracture



Displaced Femoral Neck Fracture



## Trochanteric Fractures

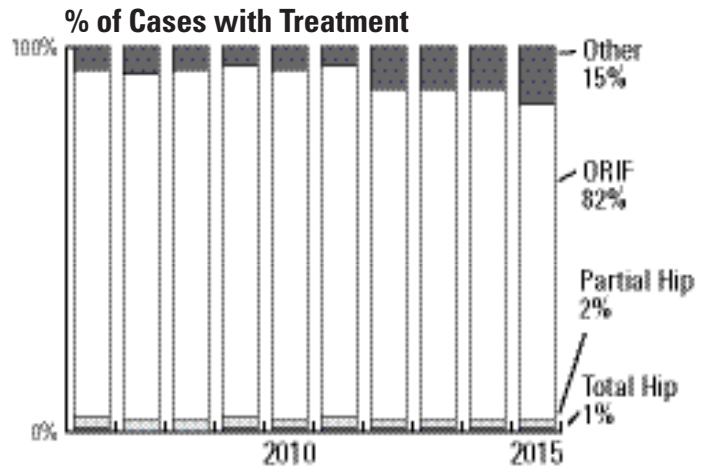
Trochanteric (also inter- and per-trochanteric) fractures are fractures in which the section between the greater and lesser trochanter is broken. These are most often caused by a fall on the side of the hip. Treatment is more likely to be an internal fixation device such as a compression hip screw, or femoral nail.



Trochanteric Hip Fracture



Comminuted Trochanteric Hip Fracture



## Subtrochanteric Femoral Fractures

Subtrochanteric fractures are fractures in which the section of the femur below the lesser trochanter is broken, generally caused by a higher velocity injury such as a motor vehicle accident or a pathological condition (tumor). The stability of the bone becomes a major concern for the surgeon, and requires devices that provide support over a greater area of the femur.



Subtrochanteric Hip Fracture

## Common Terms and Abbreviations

Fx:	Fracture
THA	Total Hip Arthroplasty
Troch Nail	Short nail for upper portion of femur. AKA cephalomedullary nail.
ORIF	Open Reduction/Internal Fixation. Use of nail, screw, plates for fracture treatment.
IF	Internal Fixation
Ex-Fix	External Fixation
Cannulated	Hole drilled down middle of screw. Allows placement of screw over guidewire.