

Treatment Guidelines for Hip Fracture in Elderly

This treatment guideline handout is adapted from the American Academy of Orthopaedic Surgeons' (AAOS) Clinical Practice Guideline Summary: Management of Hip Fractures in Older Adults.

Recommendations

Recommendations are formed when there is sufficient evidence by which to create a directional statement. This is defined as evidence from two or more high-quality studies (ie, a strong recommendation), two or more moderate-quality studies (ie, a moderate recommendation), or statements resulting in a strong or moderate strength after evidence-to-decision framework upgrading and/or downgrading.

A moderate recommendation means that the benefits exceed the potential harm (or that the potential harm clearly exceeds the benefits in the case of a negative recommendation), but the quality/applicability of the supporting evidence is not as strong.

A limited option means that there is a lack of compelling evidence that has resulted in an unclear balance between benefits and potential harm. A consensus option means that expert opinion supports the guideline option, although there is no available empirical evidence that meets inclusion criteria of the guideline's systematic review.

Level of evidence descriptions

Strength	Overall strength of evidence	Description of evidence quality	Strength visual
Strong	Strong or moderate	Evidence from two or more "High" quality studies with consistent findings for recommending for or against the intervention. Or Rec is upgraded from Moderate using the EtD framework.	★★★★★
Moderate	Strong, moderate, or limited	Evidence from two or more "Moderate" quality studies with consistent findings, or evidence from a single "High" quality study for recommending for or against the intervention. Or Rec is upgraded or downgraded from Limited or Strong using the EtD framework.	★★★☆☆
Limited	Limited or moderate	Evidence from one or more "Low" quality studies with consistent findings or evidence from a single "Moderate" quality study recommending for or against the intervention. Or Rec is downgraded from Strong or Moderate using the EtD framework.	★★☆☆☆
Consensus	No evidence	There is no supporting evidence, or higher quality evidence was downgraded because of major concerns addressed in the EtD framework. In the absence of reliable evidence, the guideline workgroup is making a recommendation based on their clinical opinion.	★☆☆☆☆

Preoperative traction

Preoperative traction should not be used for patients with a hip fracture.

- **Strength of recommendation:** Strong ★★★★★
- **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.

Surgical timing

Hip fracture surgery within 24 to 48 hours of admission may be associated with better outcomes.

- **Strength of recommendation:** Moderate ★★★☆☆
- **Implication:** Practitioners should generally follow a Moderate recommendation but remain alert to new information and be sensitive to patient preferences.

Venous thromboembolism prophylaxis

VTE prophylaxis should be used in hip fracture patients.

- **Strength of recommendation:** Strong ★★★★★ (Upgraded)
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Anesthesia

Anesthesia Either spinal or general anesthesia is appropriate for patients with a hip fracture.

- **Strength of recommendation:** Strong ★★★★★
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Unstable femoral neck fractures—arthroplasty versus fixation

In patients with unstable (displaced) femoral neck fractures, arthroplasty is recommended over fixation.

- **Strength of recommendation:** Strong ★★★★★
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Unipolar/bipolar hemiarthroplasty

In patients with unstable (displaced) femoral neck fractures, unipolar or bipolar hemiarthroplasty can be equally beneficial.

- **Strength of recommendation:** Moderate ★★★★★
 - **Implication:** Practitioners should generally follow a Moderate recommendation but remain alert to new information and be sensitive to patient preferences.
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Unstable femoral neck fractures—total arthroplasty versus hemiarthroplasty

In properly selected patients with unstable (displaced) femoral neck fractures, there may be a functional benefit to THA over hemiarthroplasty at the risk of increasing complications.

- **Strength of recommendation:** Moderate ★★★★★ (Downgraded)
 - **Implication:** Practitioners should generally follow a Moderate recommendation but remain alert to new information and be sensitive to patient preferences.
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Cemented femoral stems

In patients undergoing arthroplasty for femoral neck fractures, the use of cemented femoral stems is recommended.

- **Strength of recommendation:** Strong ★★★★★
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Surgical approach

In patients undergoing treatment of femoral neck fractures with hip arthroplasty, evidence does not show a favored surgical approach.

- **Strength of recommendation:** Moderate ★★★★★
 - **Implication:** Practitioners should generally follow a Moderate recommendation but remain alert to new information and be sensitive to patient preferences.
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Cephalomedullary device—stable intertrochanteric fractures

In patients with stable intertrochanteric fractures, the use of either a sliding hip screw or a cephalomedullary device is recommended.

- **Strength of recommendation:** Strong ★★★★★
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Cephalomedullary device—subtrochanteric/reverse obliquity fractures

In patients with subtrochanteric or reverse obliquity fractures, a cephalomedullary device is recommended.

- **Strength of recommendation:** Strong ★★★★★
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Transfusion

A blood transfusion threshold of no higher than 8 g/dL is suggested in asymptomatic postoperative hip fracture patients.

- **Strength of recommendation:** Moderate ★★★★★
 - **Implication:** Practitioners should generally follow a Moderate recommendation but remain alert to new information and be sensitive to patient preferences.
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Multimodal analgesia

Multimodal analgesia incorporating a preoperative nerve block is recommended to treat pain after a hip fracture.

- **Strength of recommendation:** Strong ★★★★★
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Tranexamic acid

Tranexamic acid should be administered to reduce blood loss and blood transfusion in patients with hip fractures.

- **Strength of recommendation:** Strong ★★★★★
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Interdisciplinary care programs

Interdisciplinary care programs should be used in the care of hip fracture patients to decrease complications and improve outcomes.

- **Strength of recommendation:** Strong ★★★★★
 - **Implication:** Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present.
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Options

Low-quality evidence, no evidence, or conflicting supporting evidence has resulted in the following statements for patient interventions to be listed as options for the specified condition. Future research may eventually cause these statements to be upgraded to strong or moderate recommendations for treatment.

Stable femoral neck fractures

In patients with stable (affected/nondisplaced) femoral neck fractures, hemiarthroplasty, internal fixation, or nonsurgical care may be considered.

- Strength of option: Limited ★★☆☆☆
 - Implication: Practitioners should feel little constraint in following an option labeled as Limited, exercise clinical judgment, and be alert for emerging evidence that clarifies or helps to determine the balance between benefits and potential harm. Patient preference should have a substantial influencing role.
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Cephalomedullary device— pertrochanteric fractures

In patients with pertrochanteric femur fractures, a short or long cephalomedullary nail may be considered.

- Strength of option: Limited ★★☆☆☆
 - Implication: Practitioners should feel little constraint in following an option labeled as Limited, exercise clinical judgment, and be alert for emerging evidence that clarifies or helps to determine the balance between benefits and potential harm. Patient preference should have a substantial influencing role.
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Weight bearing

After surgical treatment of hip fractures, immediate, full weight bearing to tolerance may be considered.

- Strength of option: Limited ★★☆☆☆
 - Implication: Practitioners should feel little constraint in following an option labeled as Limited, exercise clinical judgment, and be alert for emerging evidence that clarifies or helps to determine the balance between benefits and potential harm. Patient preference should have a substantial influencing role.
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Reference

O'Connor, M. I., & Switzer, J. (2022). AAOS clinical practice guideline summary: Management of hip fractures in older adults. *Journal of the American Academy of Orthopaedic Surgeons, Publish Ahead of Print*, 4–6. <https://doi.org/10.5435/jaaos-d-22-00125>