

# Neer's Classification

This handout covers the original Neer's classification.

## Components of the Neer classification

The Neer classification system is based on two primary factors: the number of fracture parts and the degree of displacement.

### Fracture parts

The proximal humerus is divided into four anatomical parts:

1. Humeral head
2. Greater tuberosity
3. Lesser tuberosity
4. Humeral shaft

### Displacement criteria


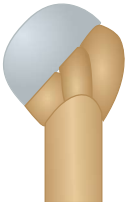



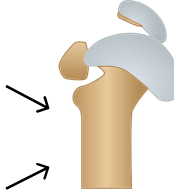
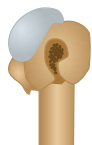
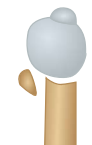

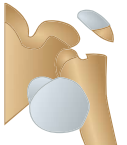
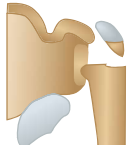
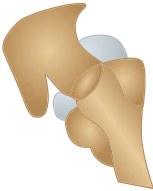



Displacement is assessed individually for each part. A fracture part is classified as displaced if it meets one of the following criteria:

- The angulation exceeds 45 degrees.
- The displacement is greater than 1 cm.

### Classification categories

Neer's original classification consists of five main categories based on the number of displaced parts:

1. **One-part fracture:** No parts are displaced.
2. **Two-part fracture:** One part is displaced.
3. **Three-part fracture:** Two parts are displaced.
4. **Four-part fracture:** Three parts are displaced.

		2-part fracture	3-part fracture	4-part fracture	
<b>Anatomical neck</b>					Minimal displacement 
<b>Surgical neck</b>					
<b>Greater tuberosity</b>					
<b>Lesser tuberosity</b>					
<b>Fracture dislocation</b>	Anterior				Articular surface 
	Posterior				

## Additional notes

Stay sharp on details: Make sure you're distinguishing between minimal displacement and the various fracture parts accurately. This is crucial for proper classification and treatment planning.

Use the arrows: Arrows are super helpful in guiding and clarifying the exact location and type of fractures. Always double-check your images.

Communicate with colleagues: If you're unsure about the classification of a fracture, don't hesitate to discuss it with a teammate. Collaboration ensures we get it right every time.

Patient comfort: Remember, explaining the classification to patients in simple terms can help them understand their condition and treatment better.

Stay updated: Regularly review the Neer classification to keep it fresh in your mind. It's a fundamental part of our work.

You're all doing fantastic work. Keep it up!

## References

Falaschi, P., & Marsh, D. (2020). *Orthogeriatrics: The management of older patients with fragility fractures*. Springer.

Neer, C. S. I. (1970). Displaced proximal humeral fractures. *The Journal of Bone & Joint Surgery*, 52(6), 1077. [https://journals.lww.com/jbjsjournal/Abstract/1970/52060/Displaced\\_Proximal\\_Humeral\\_Fractures\\_PART\\_I\\_1.aspx](https://journals.lww.com/jbjsjournal/Abstract/1970/52060/Displaced_Proximal_Humeral_Fractures_PART_I_1.aspx)