

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

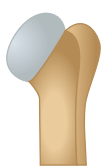
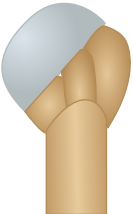



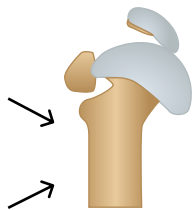

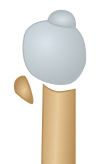
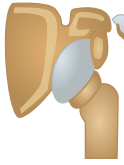
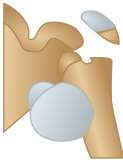

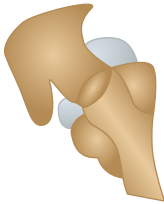



Displacement is assessed individually for each part. A fracture part is classified as displaced if it meets one of the following criteria:

- 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	
Anatomical neck					Minimal displacement 
Surgical neck					
Greater tuberosity					
Lesser tuberosity					
Fracture dislocation	Anterior				Articular surface 
	Posterior				

Additional notes

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