
u^b Hip Symposium Bern 2026

What to do: Torsion

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Nothing really new...

Current Concepts Review

Acetabular and Femoral Anteversion: Relationship with Osteoarthritis of the Hip*

BY D. TÖNNIS, M.D.†, DORTMUND, AND A. HEINECKE, PH.D.‡, MÜNSTER, GERMANY

- Full visualization of the chondrolabral damage
- Understanding of pathomechanisms

- Association with OA proven
- No insight into the hip joint
- Pathomechanisms not fully understood



Surgical dislocation of the adult hip

A TECHNIQUE WITH FULL ACCESS TO THE FEMORAL HEAD AND ACETABULUM WITHOUT THE RISK OF AVASCULAR NECROSIS

R. Ganz, T. J. Gill, E. Gautier, K. Ganz, N. Krügel, U. Berlemann

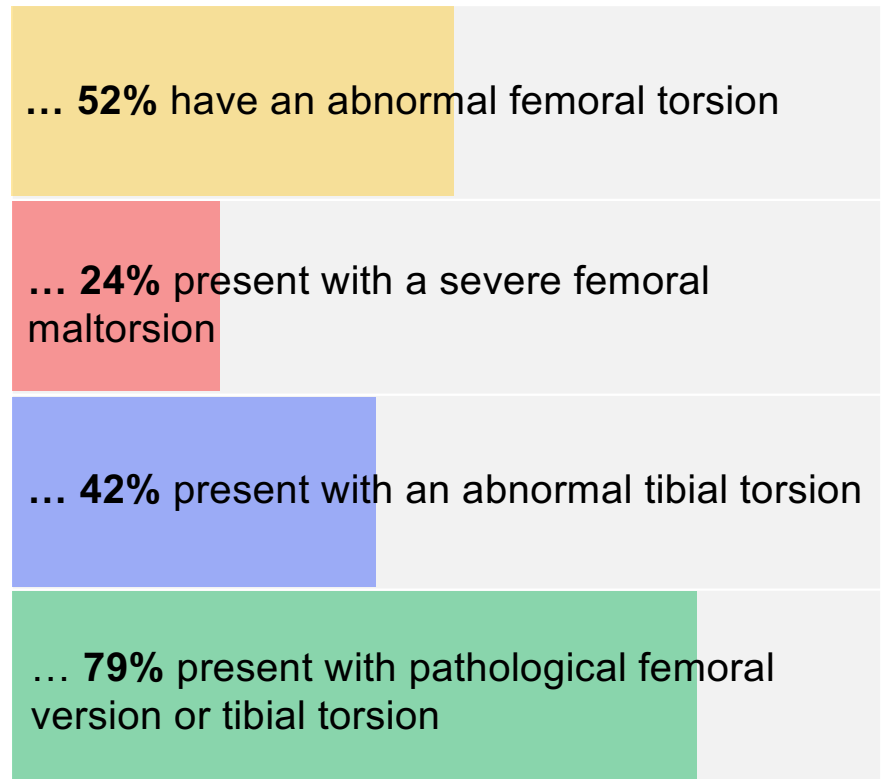
From the University of Bern, Switzerland

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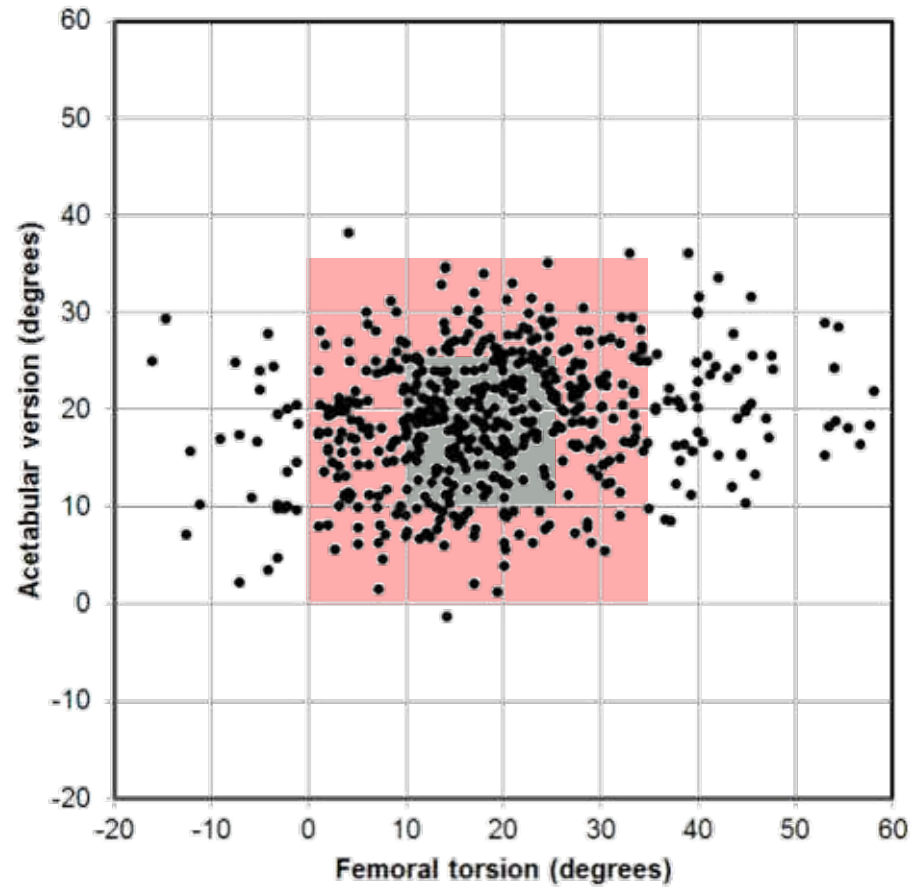
Why is it so important?



Lerch et al, *J Hip Preserv Surg*, 2022 Apr 21;9(2):67-77
Lerch et al, *Am J Sports Med*. 2018 Jan;46(1):122-134



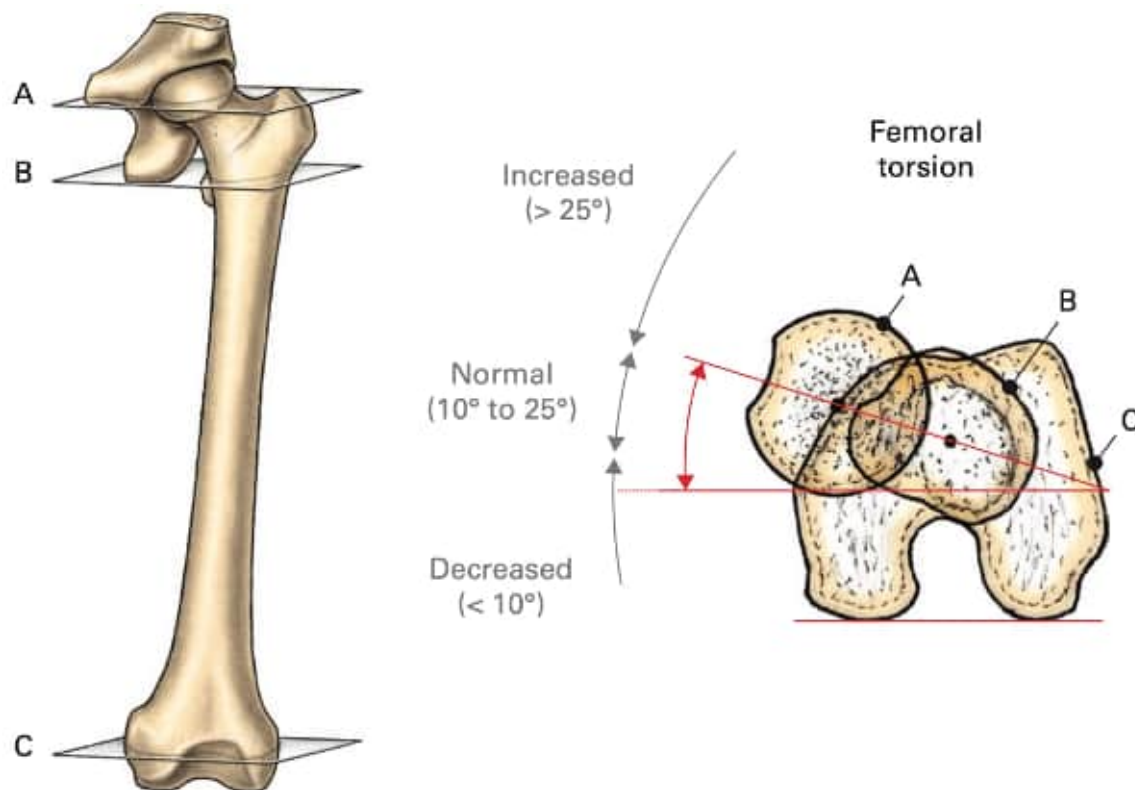
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Lerch et al, *J Hip Preserv Surg*, 2022 Apr 21;9(2):67-77
Lerch et al, *Am J Sports Med*. 2018 Jan;46(1):122-134

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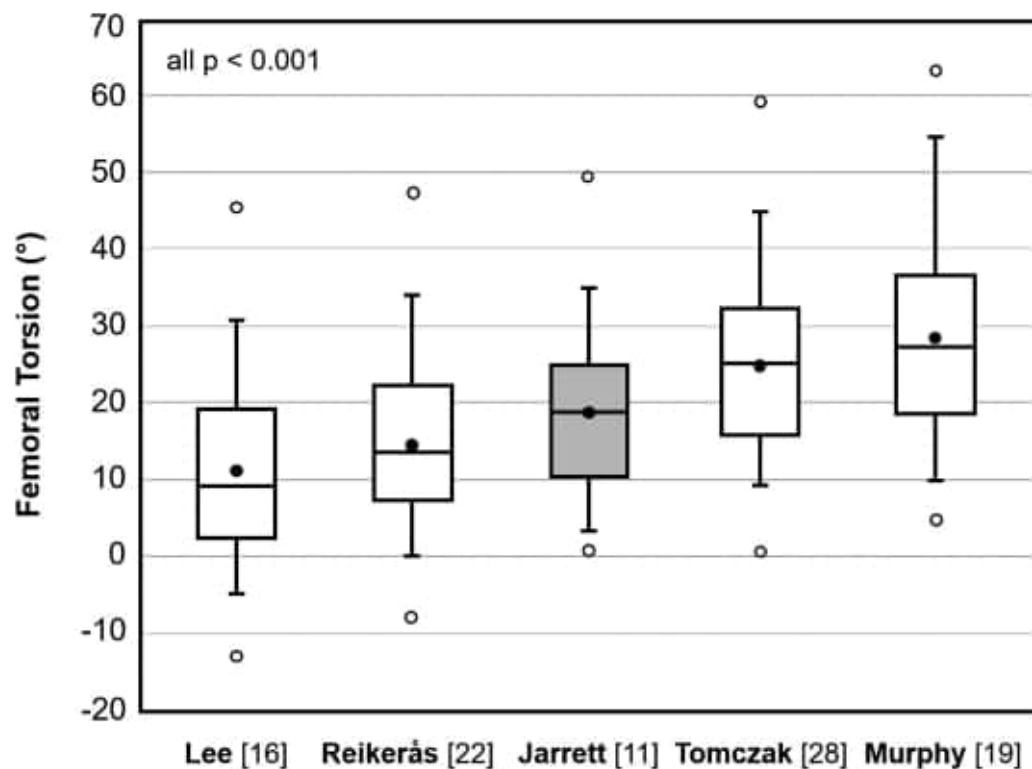
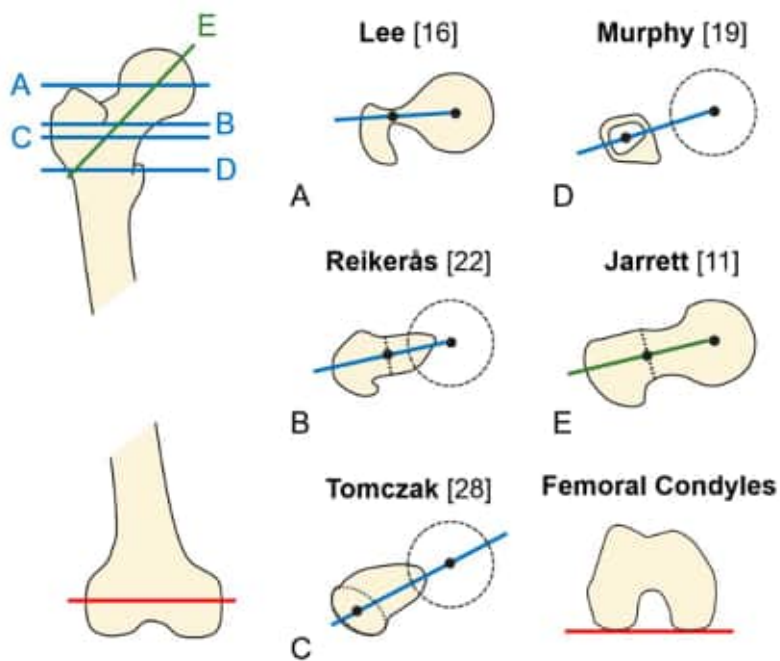
Measurement of Femoral Torsion



- **Normal** 10-25°
- **Maltorsion:** ±10°
- **Severe Maltorsion:** ±20°

Tönnis et al, JBJS Am, 1999, 81;1747-70
Jamali et al, J Orthop Res, 2007, 25;758-765
Murphy et al, JBJS Am, 1987, 69;1169-76

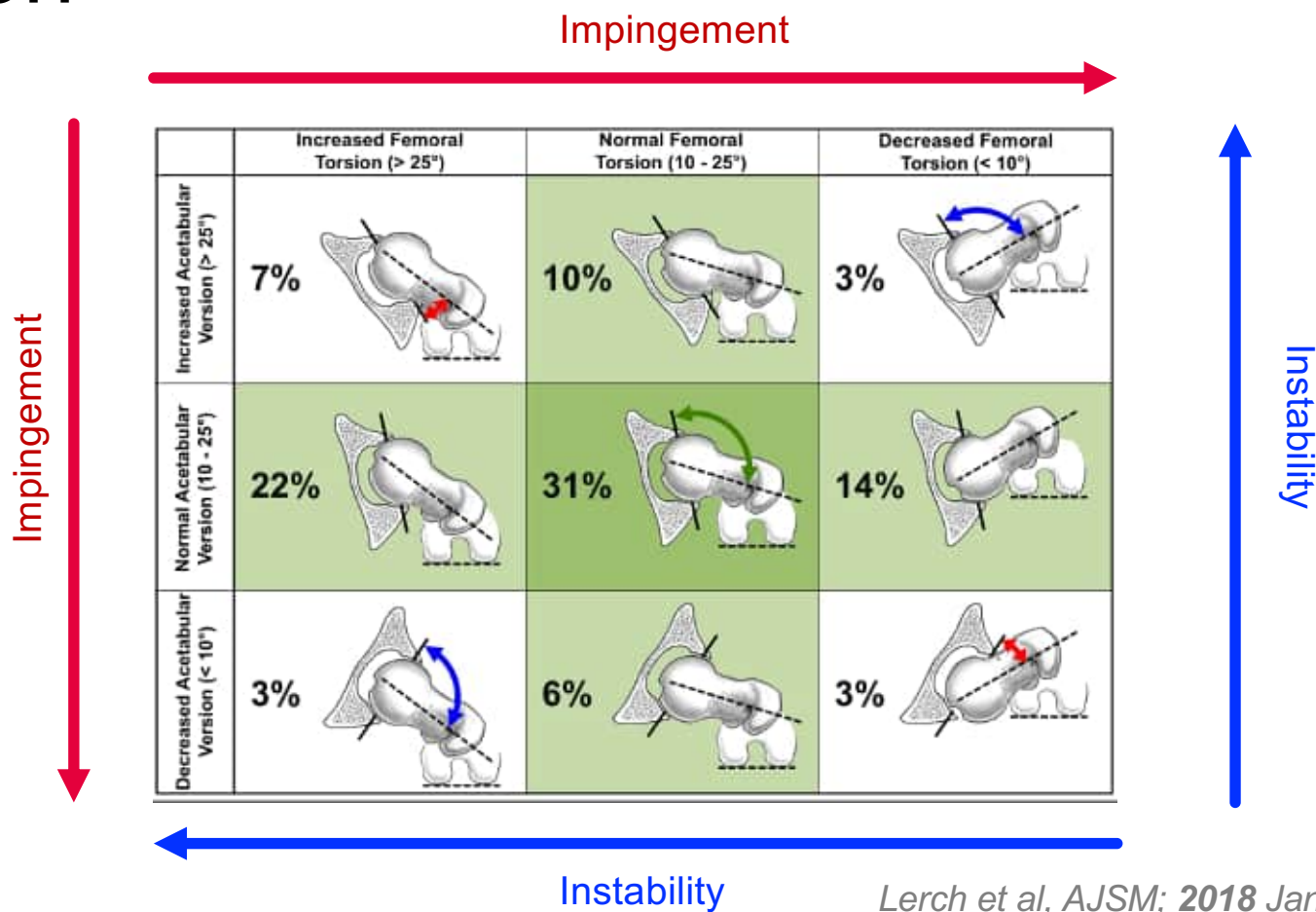
u^b Different Reference Points



Schmaranzer et al, *Clin Orthop Relat Res.* 2019 May;477(5):1073-1083.

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3x3 Matrix Acetabular Version – Femoral Torsion



Lerch et al, AJSM; 2018 Jan;46(1):122-134.

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Clinical Assessment Femoral Torsion



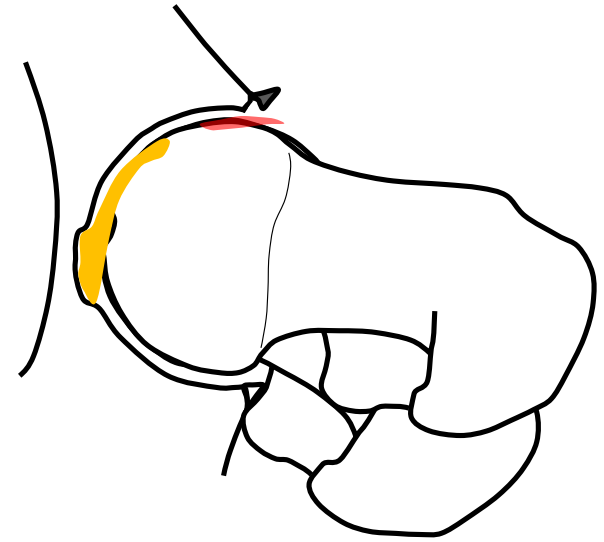
Retrotorsion



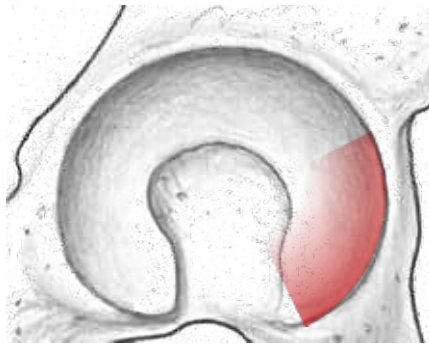
Antetorsion

Lerch et al, BJJ, 2019 Oct;101-B(10):1218-1229

u^b Excessive Femoral Torsion



u^b Excessive Femoral Torsion
Intraarticular Damage Pattern



Localization:
Anteroinferior (contre coup)



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Case Example 1

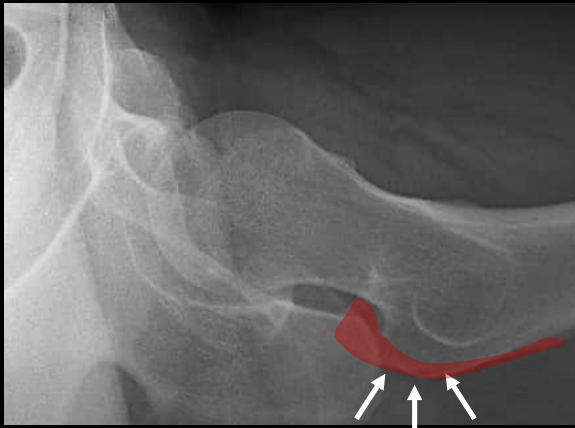
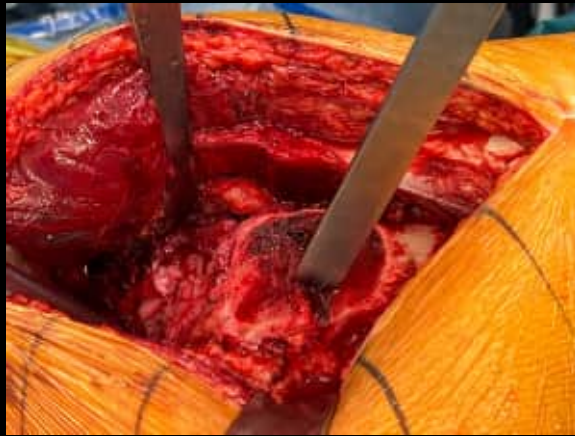
Dysplasia and Femoral Antetorsion



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Case Example 2

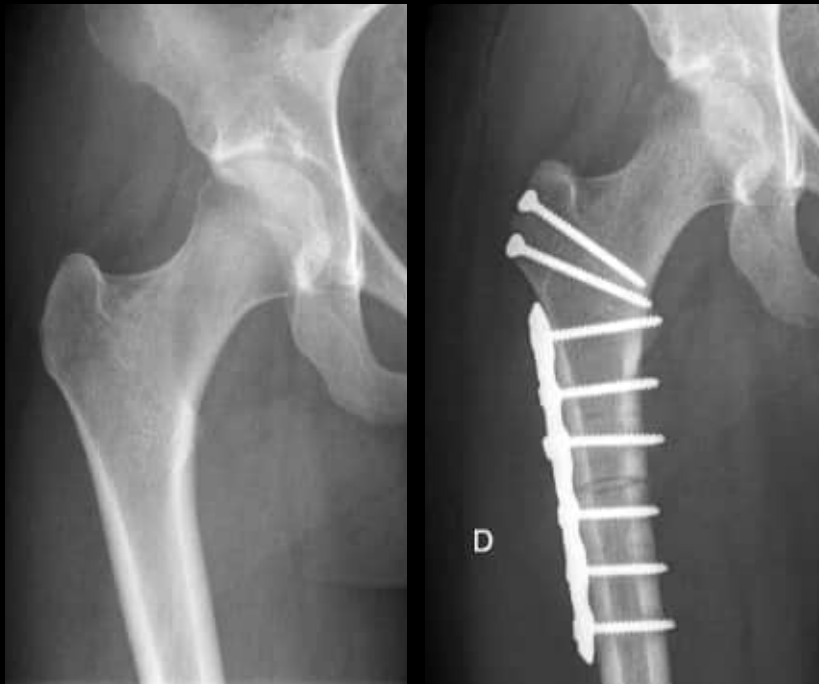
Poor man's Derotation



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Case Examples 3 and 4 Varus Derotation

Derotation



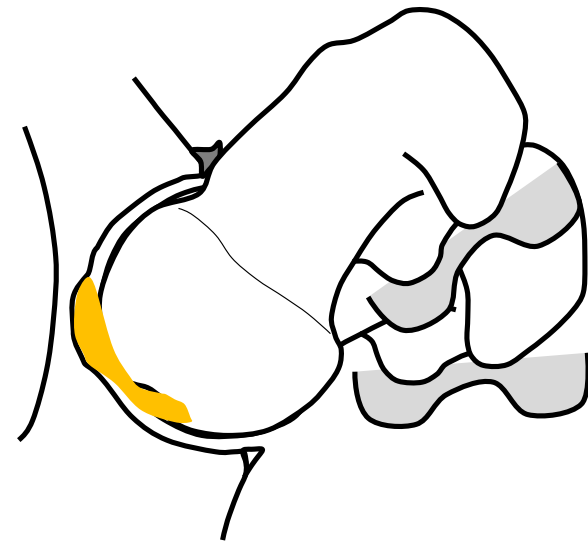
Up to 20° torsional correction needed

Varus-Derotation



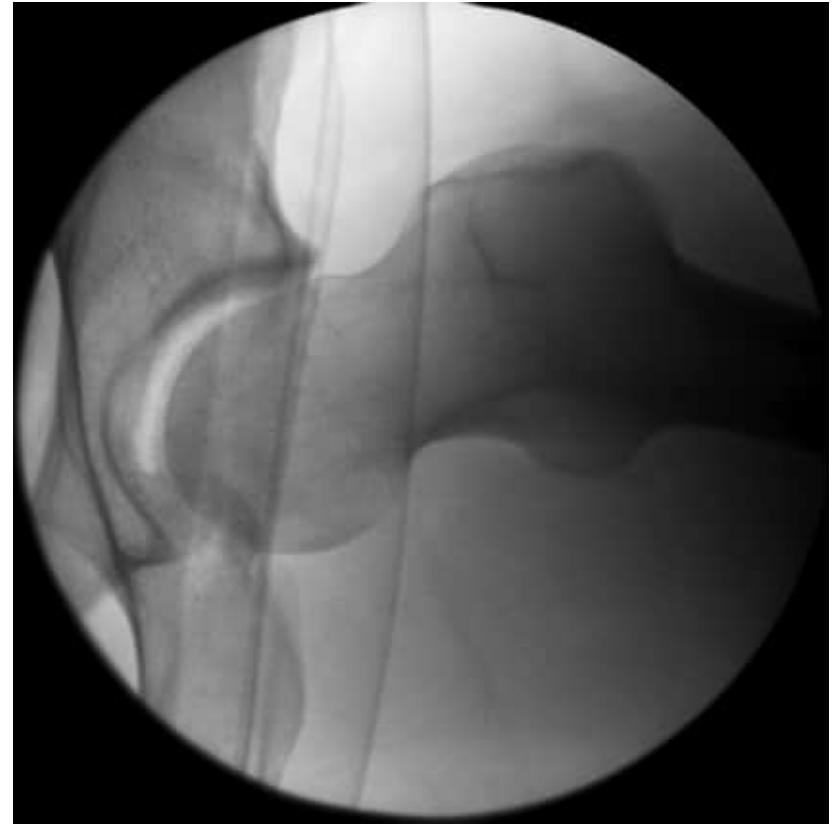
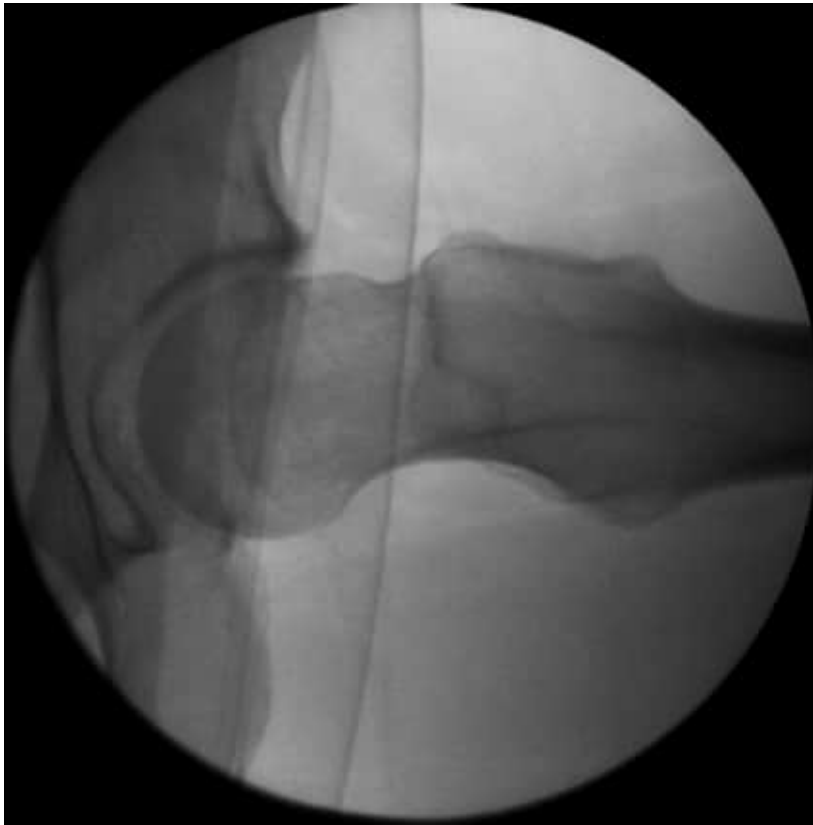
More than 20° torsional correction needed

u^b Decreased Femoral Torsion

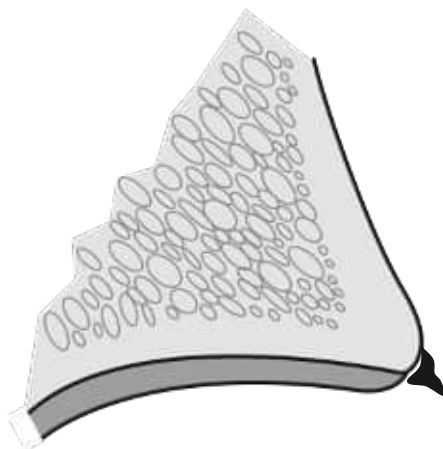


Steppacher et al, CORR, 2013
Tibor et al, BJJ, 2012

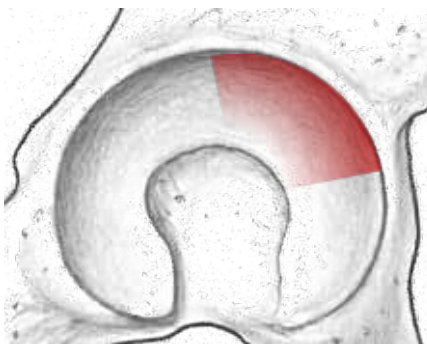
u^b **Decreased Femoral Torsion**
Levering Out



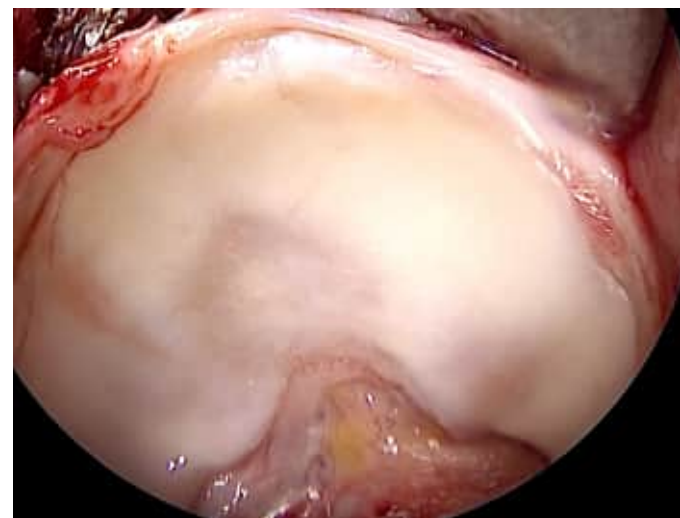
u^b **Decreased Femoral Torsion**
Intrarticular Damage Pattern



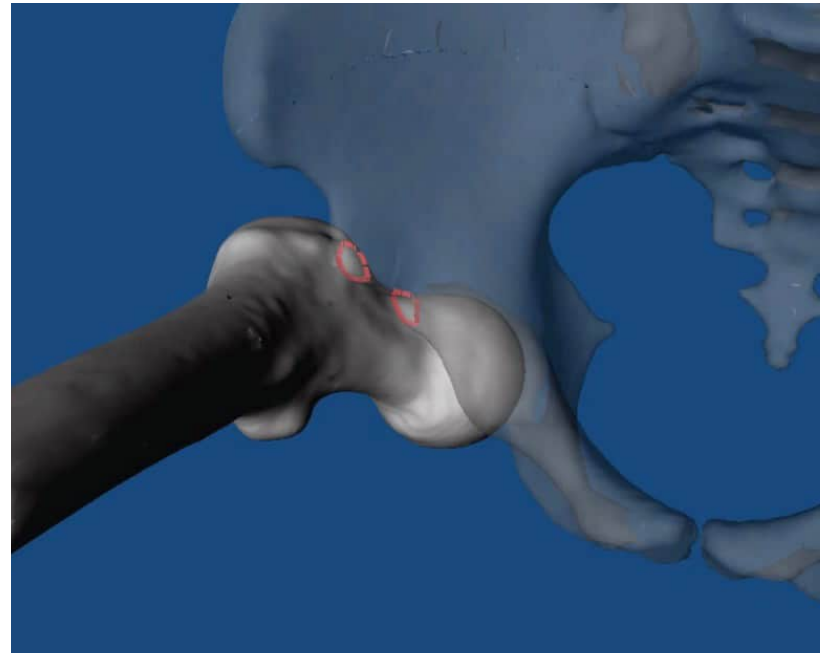
Characterization:
Very small or absent labrum
Adjacent cartilage lesion



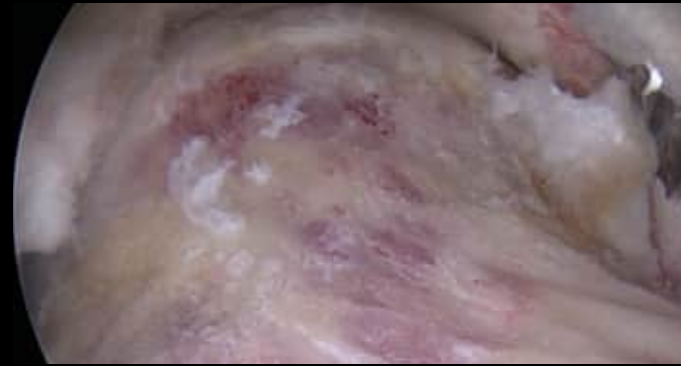
Localization:
Anterosuperior



u^b **Decreased Femoral Torsion**
Intra- and/or extraarticular FAI



w^b **Case Example 4**
Intraarticular impingement only



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Case Example 5

Intra- and extraarticular: Poor man's rotation

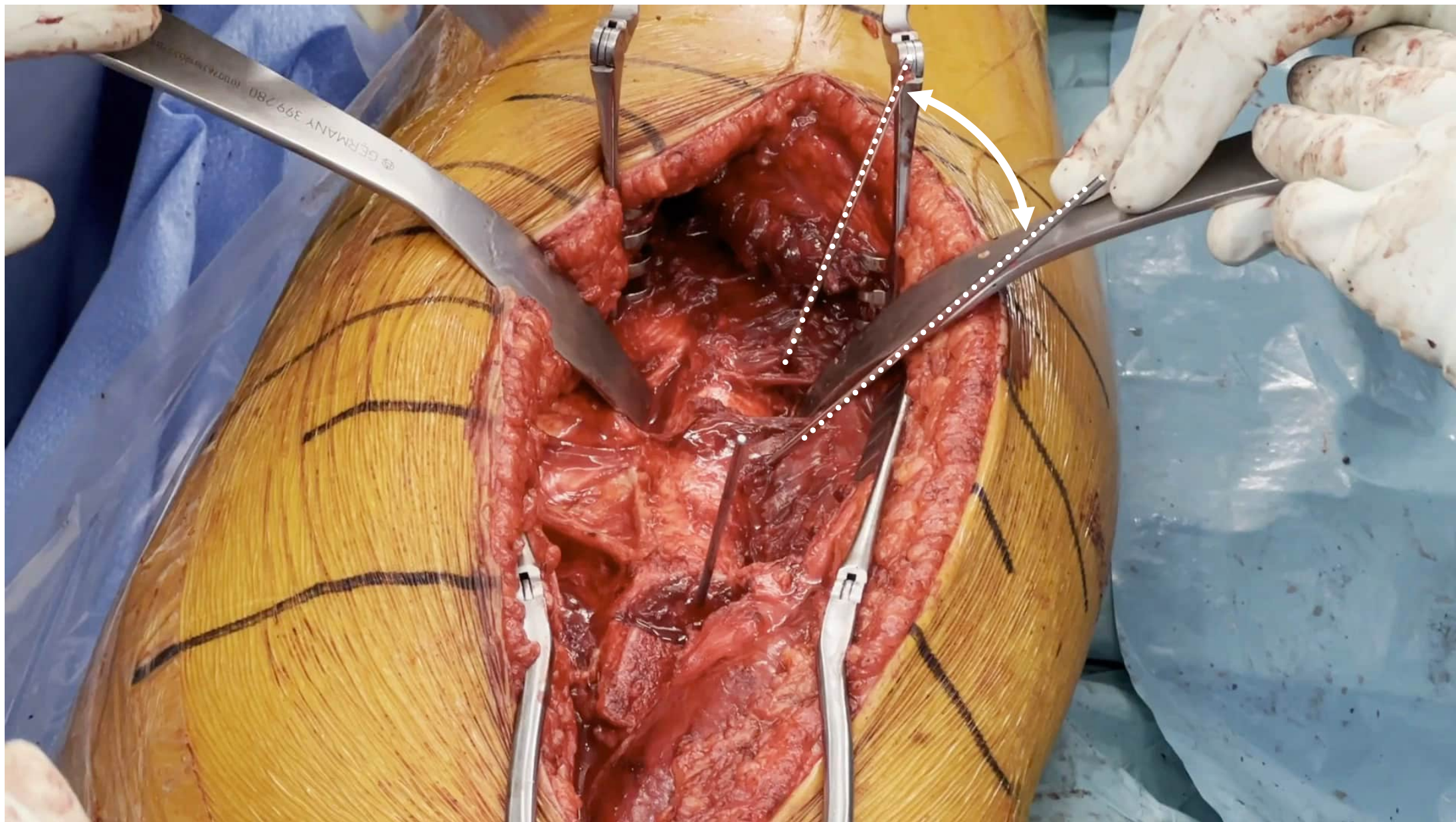


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Case Example 6

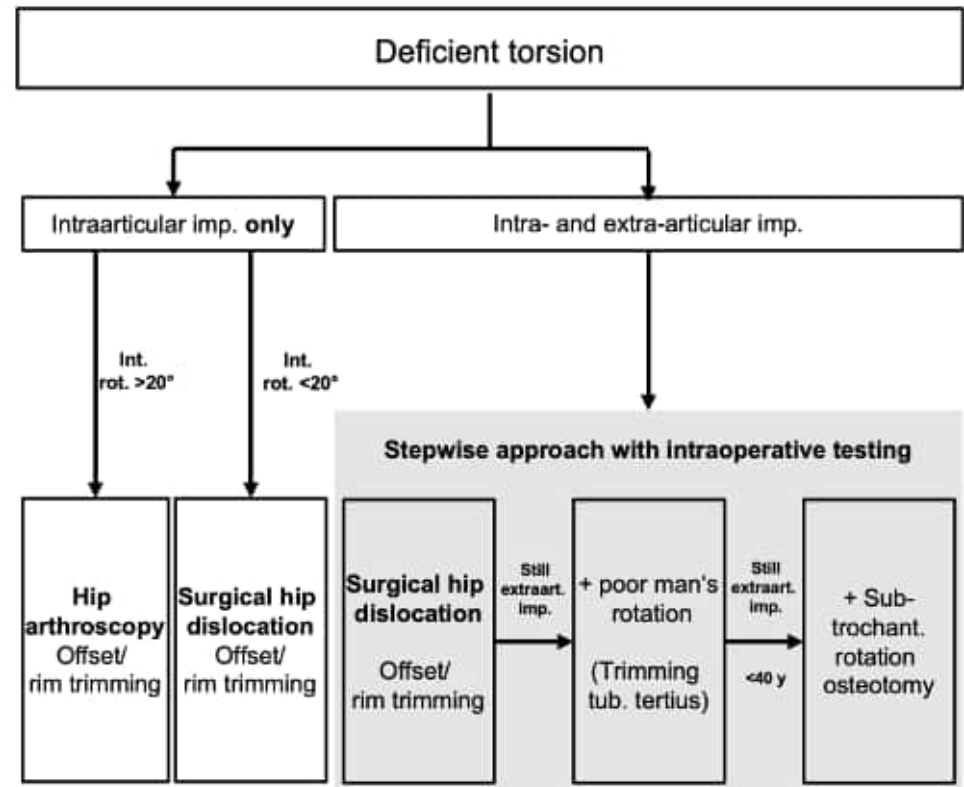
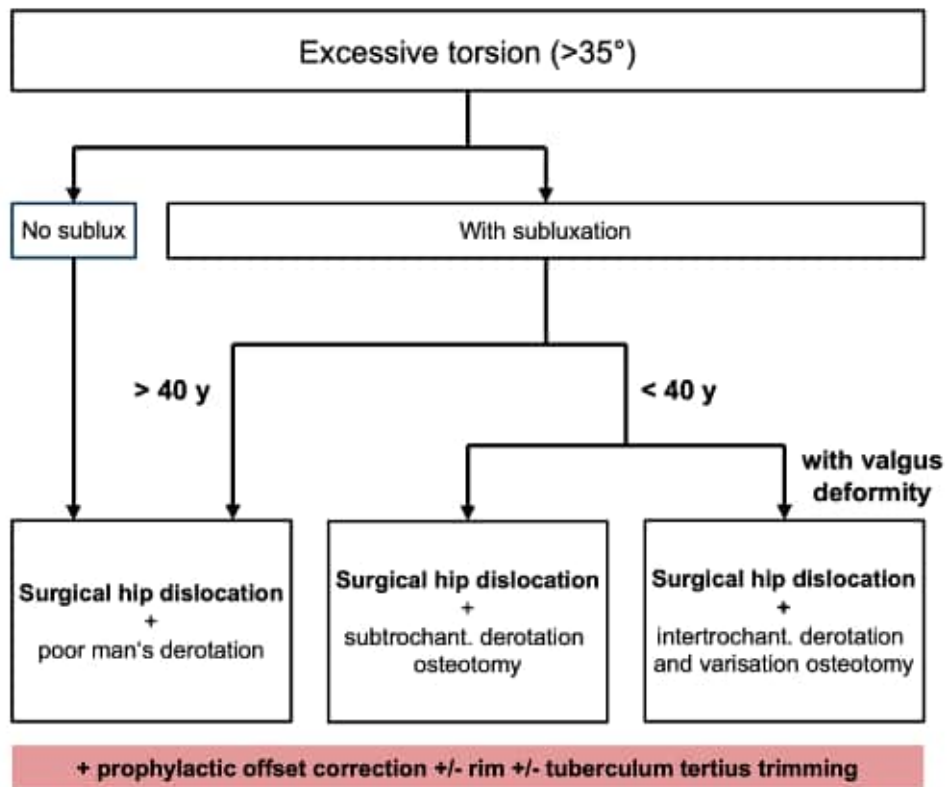
Intra- and Extraarticular: Osteotomy





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Summary



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