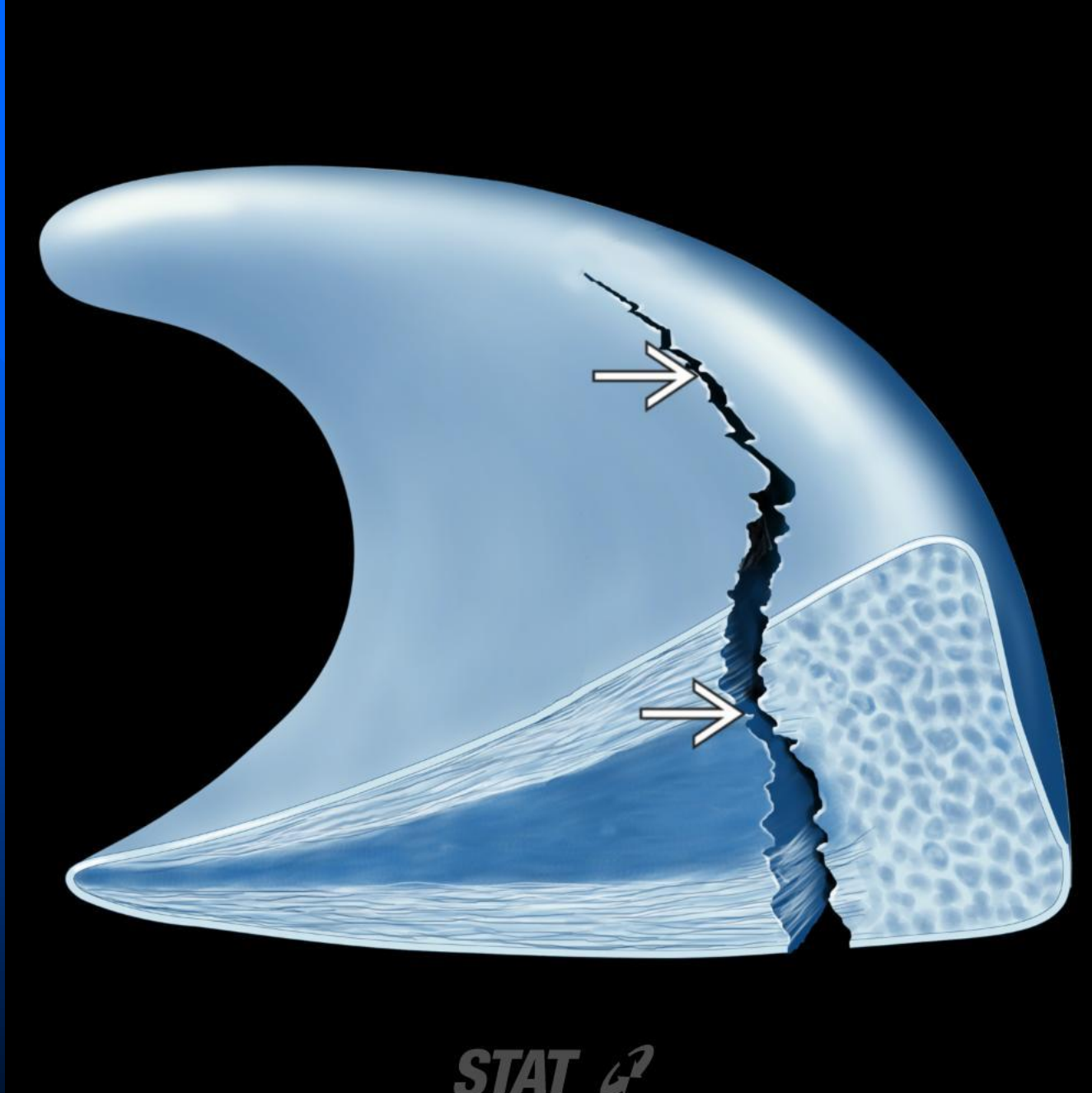


Meniscal Vertical Longitudinal Tear

- Adolescents and young, active adults
- Small, nondisplaced red zone tears often heal spontaneously
- Mesial fragment may displace → bucket-handle tear
- Meniscal repair preferred when possible
- Large meniscal resection → accelerated osteoarthritis
- Meniscal repair: Red zone tears that are stable to arthroscopic probing and not complex
- Meniscal resection: Unstable, irregular red zone tears; any red-white or white zone tears

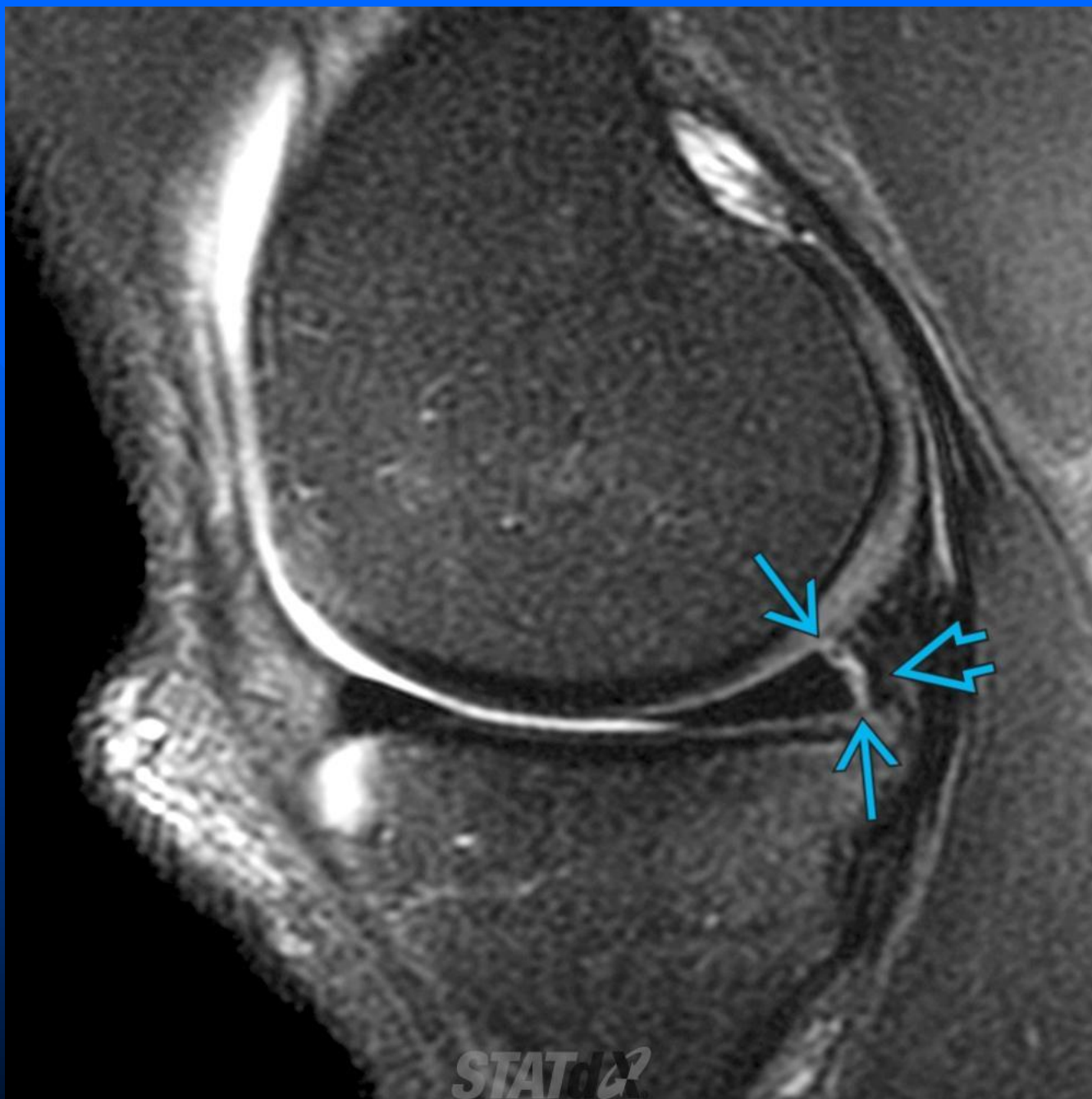
Imaging

- Linear intermediate/high signal vertically oriented within meniscus
- Usually located in posterior horn
- Typically in outer 1/3 of meniscus (red zone)
- Uncommon in white zone (near free edge)
- May see isolated involvement of inferior > superior articular surface
- Correlate short TE coronal and sagittal sequences to identify full extent of tear



STAT 

Sagittal graphic depicts a vertical longitudinal tear (VLT) (white solid arrow) at the red-white junction of a meniscus. VLTs follow the longitudinal axis of the meniscus and remain the same distance from the edge throughout. They usually arise in the posterior horn and may propagate into the body and anterior horn.



Sagittal T2WI FS MR in the same patient shows very high signal within the tear (cyan solid arrow) and black meniscal tissue (cyan open arrow) peripheral to the tear. Far peripheral VLTs can be more easily discerned on fluid sensitive sequences.