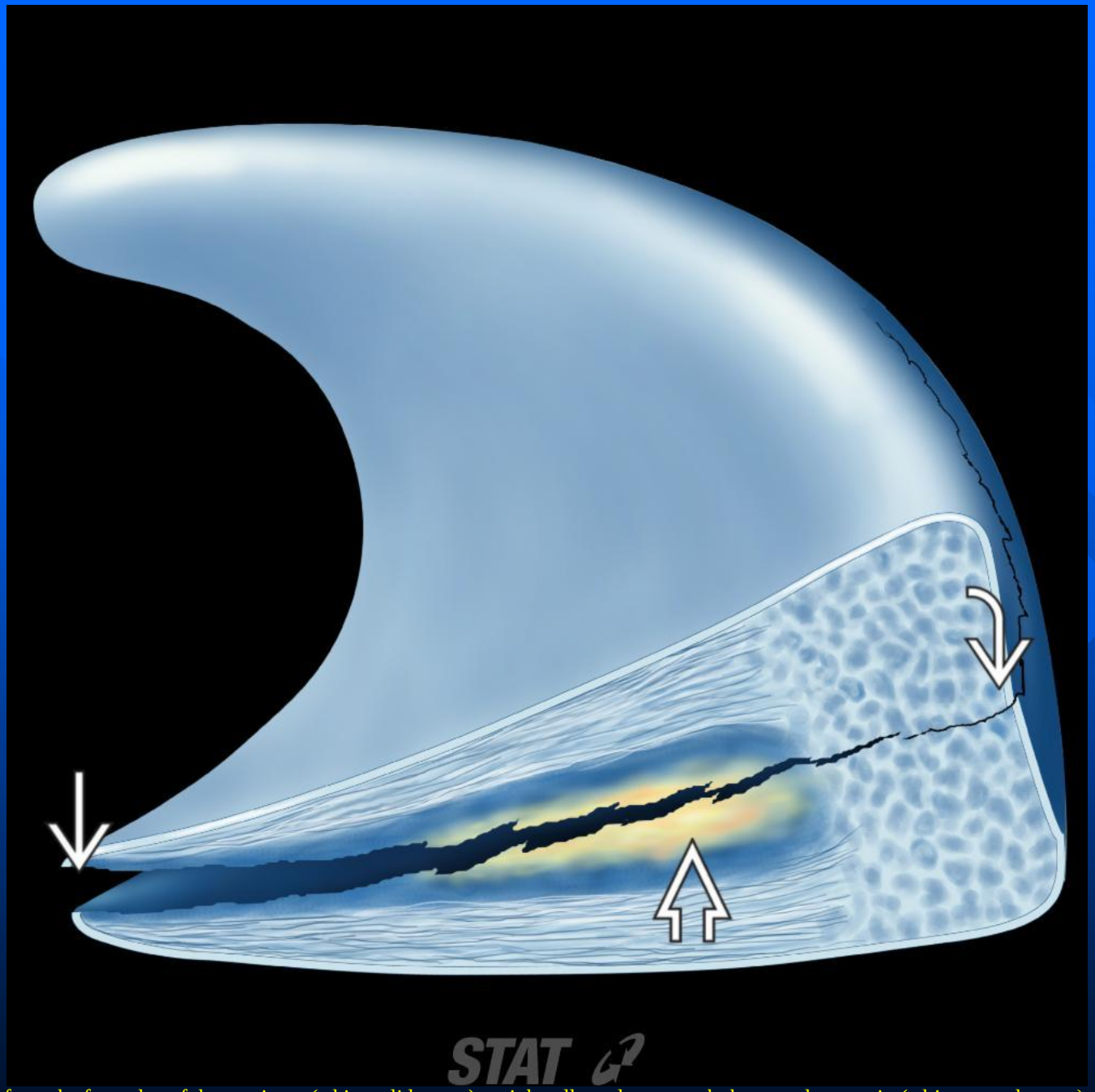
Horizontal tear

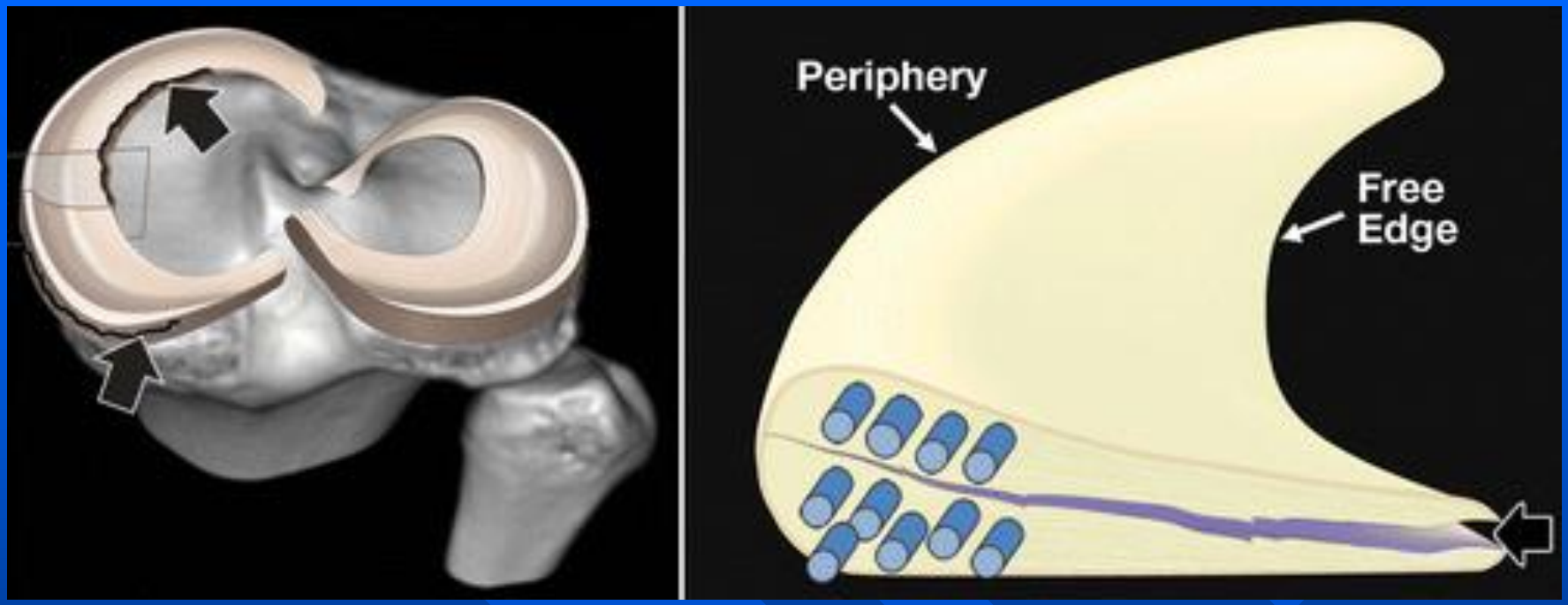
- Horizontally oriented linear increased intrameniscal signal clearly extending to articular surface
- Usually starts at free edge and propagates peripherally
- Ranges from fraying of free edge to full thickness bifurcation of meniscus
- Often more visible on short TE sequences
- May be associated with parameniscal cyst or occasionally intrameniscal cyst
- If full thickness, inferior fragment may be displaced
- Subluxation of meniscus
- Adjacent osteoarthritic changes
- If abnormal morphology of meniscus, assess for displaced flap
- Horizontal tear + displaced flap = horizontal flap tear

Zones

- Meniscal red zone: Outer 1/3 of meniscus, vascular portion of meniscus
- Meniscal red-white junction: Middle 1/3 of meniscus between peripheral zone and free edge
- Meniscal white zone: Inner 1/3 of meniscus near free edge, nonvascular

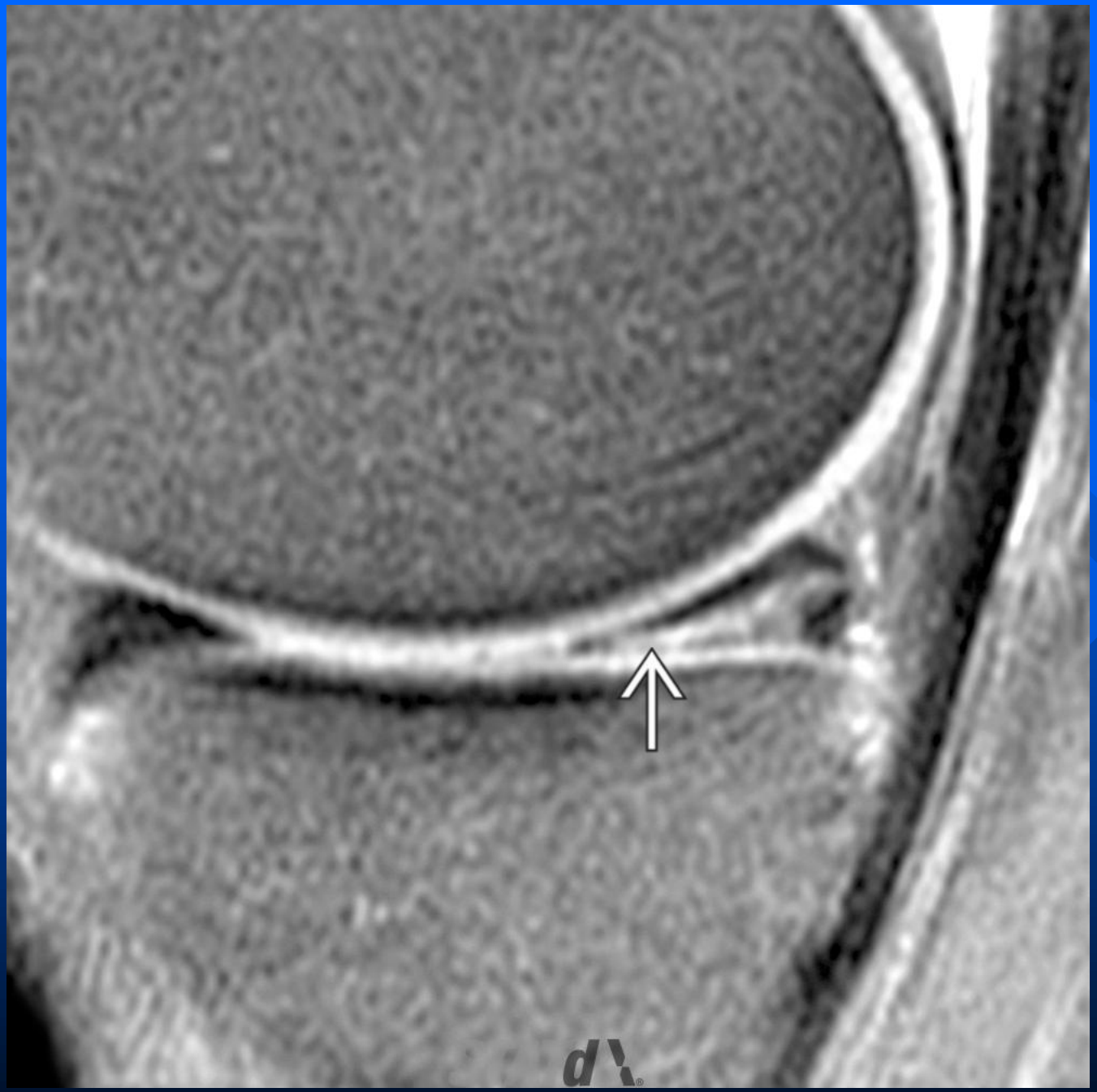


The tear propagates from the free edge of the meniscus (white solid arrow) peripherally and may reach the capsular margin (white curved arrow). Horizontal tears often occur in menisci with underlying mucinous degeneration (white open arrow).

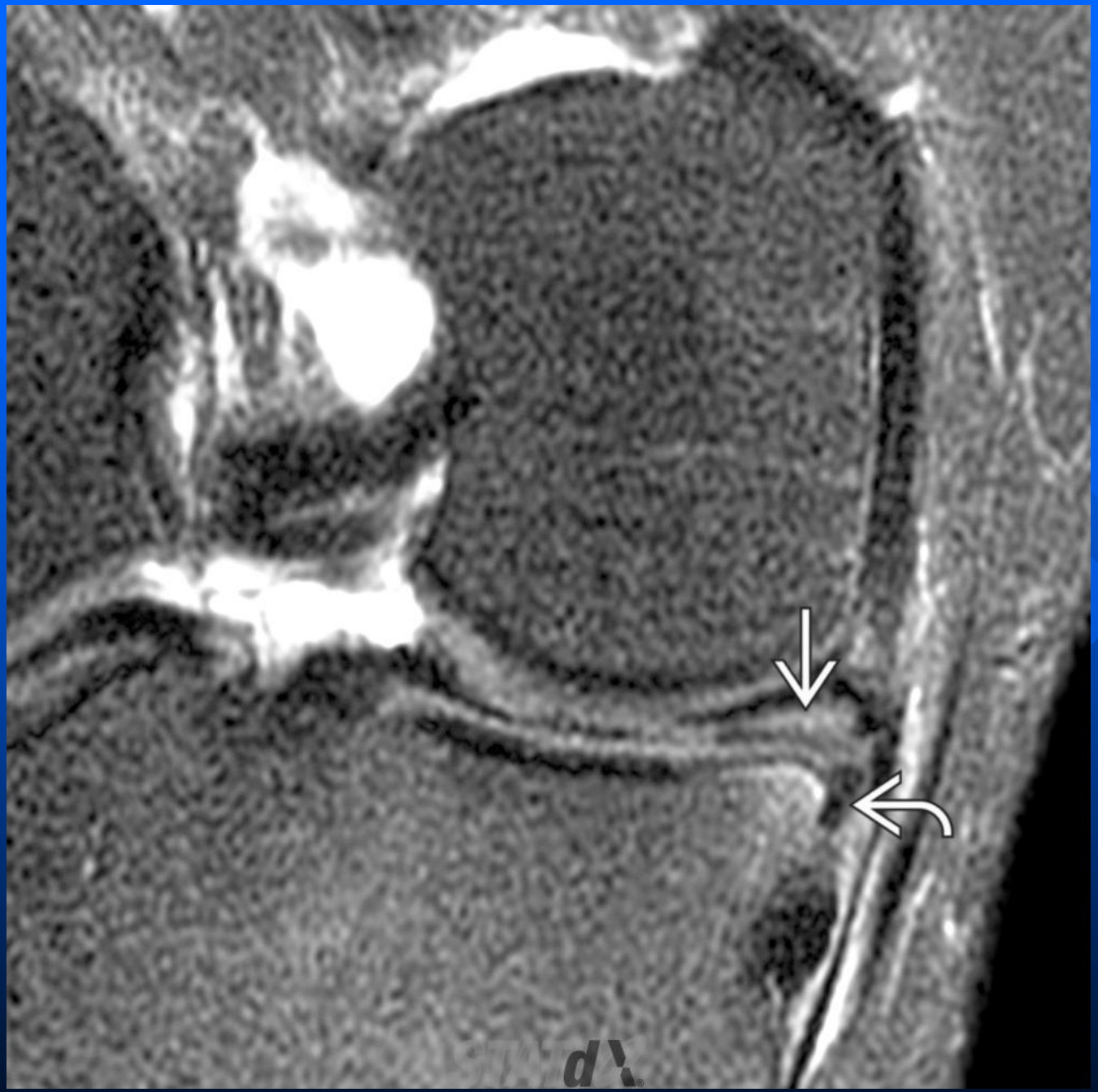


Courses between the longitudinal collagen bundles (blue cylinders) without disrupting them and separates the meniscus into upper and lower halves.

Usually occur in patients older than 40 years without an inciting trauma and are more common in the setting of underlying degenerative joint disease.



Sagittal PDWI FS MR shows a horizontal tear of the posterior horn of the medial meniscus. Linear signal within the substance of the meniscus clearly contacts the inferior articular surface (white solid arrow).



Coronal T2WI FS MR in the same patient better shows the horizontal morphology of the tear (white solid arrow). A small fragment arising from the undersurface of the meniscus is displaced into the inferior medial gutter (white curved arrow).