MSK MRI: Technical Considerations
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Objectives
1. Review anatomy and physiology of the musculoskeletal tissues
2. Understand MRI contrast mechanisms
3. Understand MR imaging techniques: pulse sequences, use of coils, etc.
4. Understand techniques for optimal imaging of common pathologic processes

Outline
- Bone and Joint Tissues
  - Types of tissues imaged
  - MRI appearance of tissues on conventional sequences
- Contrast mechanisms in MSK MRI
  - Generation of T1 and T2 contrast
  - Fat suppression
  - Blurring in fast spin echo
- Spatial resolution in MR imaging
  - Importance of spatial resolution.
  - Relationship of coils, imaging speed, and resolution
- High field MRI
  - Advantages and disadvantages of high field
  - Protocol optimization
- Example knee protocols:
  - Sequences and design
  - Complementary sequences

References