Distinguishing between Inflammatory and Degenerative Joint Disease

**Inflammatory Joint Disease**
- Auto-immune attack of body tissues, due to failure of the body’s immune system to discriminate between self and non-self.
- Within joints, severe synovial inflammation dilates local blood vessels, and causes the vessel endothelium to be more leaky.
- Accumulation of abundant inflammatory synovial fluid at rest or overnight.
  - Swelling stimulates joint nociceptors
  - Overnight fluid accumulation in the synovial membrane
  - Moving the joint physically pushes fluid back into lymphatics, relieving the painful swelling.
  - Pain with rest
  - Morning stiffness
  - Pain relieved with motion
  - Stiffness resolves after >1hr

**Degenerative Joint Disease**
- Repetitive, excess, or abnormal mechanical forces on joints over time, leading to physical breakdown of the joint.
- Motion (using the joint) exacerbates the mechanical forces that are wearing down the joint.
- Fragments of broken articular cartilage triggers a mild synovial inflammation that seeps fluid into the synovial membrane during inactivity.
- Larger, weight-bearing joints tend to bear the brunt of the mechanical forces.
  - Most commonly affects the knee, hip, and L/C-spine facet joints

**Extra-articular manifestations; positive inflammatory markers (CRP, ESR, RF, ANA)**

**Pain with motion (relieved by rest)**

**Joint stiffness after inactivity**

**Stiffness is short-lived, quickly relieved by movement**

**Note:** one big difference btw the two is the *degree* of joint inflammation (synovitis) present in the joint capsule

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**Legend:** Pathophysiology | Mechanism | Sign/Symptom/Lab Finding | Complications

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Published November 1, 2012 on www.thecalgaryguide.com