

**Beebe Healthcare**  
**Margaret H. Rollins School of Nursing**  
**N101 – Foundations of Nursing**

|                     | <b>OA</b>   | <b>RA</b>   |
|---------------------|---|---|
| <b>Patho</b>        | <ul style="list-style-type: none"> <li>• Many factors including genetic, metabolic, and local, lead to the initial development of OA.</li> <li>• Begins with inflammation and thickening of the synovial capsule and synovium of the joints.</li> <li>• Over time, the thinner central cartilage edges become thicker and osteophytes form.</li> <li>• The rubbing together of bones causes articular surfaces to crack and wear as the articular cartilage becomes softer and less elastic.</li> </ul> | <ol style="list-style-type: none"> <li>1. Susceptible host experiences initial immune response to an antigen.</li> <li>2. Antigen triggers the formation of abnormal IgG.</li> <li>3. Rheumatoid Arthritis = + autoantibodies known as Rheumatoid factor (RF)</li> <li>4. RF and IgG create immune complexes that deposit into the synovial membranes of the superficial articular cartilage in the joints.</li> <li>5. Triggers an inflammatory response.</li> <li>6. Neutrophils are attached to the site of inflammation and release enzymes that damage articular cartilage.</li> </ol> |
| <b>Risk Factors</b> | <ul style="list-style-type: none"> <li>• Age</li> <li>• Decreased estrogen; menopause</li> <li>• Obesity</li> <li>• Anterior cruciate ligament injury</li> <li>• Frequent kneeling and stooping</li> <li>• Smoking</li> <li>• Trauma</li> </ul>   | <ul style="list-style-type: none"> <li>• Immunocompromised</li> <li>• Genetic predisposition</li> <li>• Gender</li> <li>• Age</li> </ul>  |
| <b>S&amp;S</b>      | <ul style="list-style-type: none"> <li>• Joint pain</li> <li>• Joint tenderness</li> <li>• Joint stiffness</li> <li>• Deformities (Heberden's and Bouchard's nodes, abnormal knee rotation)</li> </ul>  | <ul style="list-style-type: none"> <li>• Fatigue, anorexia, weight loss</li> <li>• Joint pain, stiffness, limited motion, and inflammation</li> <li>• S&amp;S occur symmetrically.</li> <li>• Fingers spindle-shaped</li> <li>• Pain increases with motion.</li> <li>• Vasculitis</li> <li>• Rheumatoid nodules</li> <li>• Sjogren syndrome</li> <li>• Felty syndrome</li> <li>• Flexion contractures and hand deformity</li> <li>• Depression</li> </ul>   |
| <b>Dx</b>           | <ul style="list-style-type: none"> <li>• Bone Scan</li> </ul>   | <ul style="list-style-type: none"> <li>• Anti-CCP</li> </ul>  |

|           |   |   |
|-----------|---|---|
|           | <ul style="list-style-type: none"> <li>• CT</li> <li>• MRI</li> <li>• X-rays</li> <li>• Synovial fluid analysis</li> </ul>  | <ul style="list-style-type: none"> <li>• ANA</li> <li>• ESR, CRP</li> <li>• Synovial fluid analysis</li> <li>• Tissue biopsy</li> <li>• X-rays</li> <li>•</li> </ul>  |
| <b>Tx</b> | <ul style="list-style-type: none"> <li>• No cure, just palliative care.</li> <li>• Care works to manage inflammation and pain, prevent disability, and improve/maintain joint function.</li> <li>• Rx: NSAIDs, DMOADs, topical agents, intraarticular corticosteroid injections, hyaluronic acid injection</li> <li>• Sx: reconstructive</li> </ul> | <ul style="list-style-type: none"> <li>• Rx: DMARDs, BRMs, abx, corticosteroid therapy</li> <li>• Physical therapy</li> <li>• Occupational therapy</li> </ul>   |
| <b>NI</b> | <ul style="list-style-type: none"> <li>• Heat and cold applications</li> <li>• Nutrition therapy and exercise</li> <li>• Rest and joint protection</li> <li>• Guiding home health management</li> </ul>   | <ul style="list-style-type: none"> <li>• Exercise/ROM</li> <li>• Client and family education</li> <li>• Heat and cold applications</li> <li>• Relaxation techniques</li> <li>• Joint protection</li> <li>• Pain management</li> <li>• Lightweight splints</li> <li>• Skin care</li> <li>• Psychosocial support</li> </ul> |