

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

	OA	RA
Patho	<ul style="list-style-type: none"> • OA is a slowly progressive noninflammatory disorder of the diarthrodial (synovial) joints; it affects over 30 million adults in the US • Involves gradual loss of articular cartilage w/ formation of bony outgrowths at the joint margins; cartilage destruction begins from ages 20-30; most adults affected by age 40; few pts. Have symptoms until >50 yo; by 65, 50% report having arthritis. • May be caused by a known event or condition that directly damages cartilage or causes joint instability; however, there is no single cause; various genetic traits may contribute to the development of cartilage defects • Decreased estrogen at menopause may contribute to the increased incidence of OA in aging women • Genetic, metabolic, and local factors interact to cause cartilage deterioration from damage at the level of the chondrocytes; normal smooth, white, translucent articular cartilage becomes dull, yellow, and granular as OA progresses • The body's attempts at cartilage repair can't keep up w/ destruction caused by OA • Secondary synovitis occurs w/ OA when phagocytes try to rid the joint of small pieces of cartilage torn from the joint surface 	<ul style="list-style-type: none"> • A chronic, systemic autoimmune disease characterized by inflammation of connective tissue in the diarthrodial (synovial) joints • Typically marked by periods of remission and exacerbation • RA most often begins in women between ages 30 and 60; rare in men <45 yo; affects 1.5 million adult Americans; almost 3 times as many women have RA as men • Exact cause UNK; likely results from genetics and environmental triggers; widely accepted cause is autoimmune; RA begins when a genetically susceptible person has an initial immune response to an allergen, although no specific infection or organism to date have been found • Antigen triggers formation of an abnormal immunoglobulin G; marked by autoantibodies to this abnormal IgG; the autoantibodies are known as rheumatoid factor (RF); they combine w/ IgG to form immune complexes; at first, these complexes deposit on synovial membranes or superficial articular cartilage in the joints; complex formation leads to complement activation and an inflammatory response • Neutrophils are attracted to the inflammation and release proteolytic enzymes that damage articular cartilage and cause the synovial lining to thicken • Some pts. report a precipitating stressful event, such as infection, work stress, physical exertion, childbirth, surgery, or emotional upset; people who smoke are less likely to have disease remission if they have RA; strongest evidence for a genetic predisposition is the role of human leukocyte antigens (HLA), esp. HLA-DR4 and HLA-DR1 antigens
Risk Factors	<ul style="list-style-type: none"> • Older age (esp. menopausal women) • Obesity 	<ul style="list-style-type: none"> • Smoking • Older age (esp. women)

	<ul style="list-style-type: none"> • Playing contact sports (football and soccer) • Work that requires frequent kneeling and stooping • Prolonged corticosteroid use • Hematologic/endocrine problems • Inflammation • Joint instability • Mechanical stress • Neurologic problems • Skeletal deformities • Trauma 	<ul style="list-style-type: none"> • Genetics • Obesity • Family hx • Environmental factors • Hormonal, reproductive, and neuroendocrine factors
S&S	<ul style="list-style-type: none"> • Mild discomfort to significant disability • Joint pain (worsens w/ activity) • Pain referred to the groin, buttock, or outside of the thigh or knee • Hard to sit down or get up from a chair • Joint stiffness (usually in the early morning that resolves within 30 min) • Crepitation at the joints • Affected unilaterally • Heberden nodes on DIP joints • Bouchard nodes on PIP joints • Bowlegged or knock-kneed • One leg shorter than the other 	<ul style="list-style-type: none"> • Fatigue • Anorexia • Weight loss • General stiffness • Joint pain, stiffness, limited motion, and signs of inflammation • Joint symptoms occur symmetrically • Morning stiffness (that lasts 60 min to hours) • Spindle-shaped fingers • Difficulty in grasping items • Ulnar drift, swan neck, boutonnière deformities
Dx	<ul style="list-style-type: none"> • X-rays help confirm disease and stage joint damage • Synovial fluid analysis • H&P 	<ul style="list-style-type: none"> • H&P • CBC • ESR • C-reactive protein • Rheumatoid factor • Antibodies to citrullinated peptide • Antinuclear antibody • X-rays of involved joints • Synovial fluid analysis, synovial biopsy
Tx	<ul style="list-style-type: none"> • Care focused on managing pain and inflammation, preventing disability, and maintaining and improving joint function • Drug therapy (NSAIDs and intraarticular corticosteroids) 	<ul style="list-style-type: none"> • Nutrition and weight management counseling • Therapeutic exercise • Psychologic support • Rest and joint protection, use of assistive devices • Heat and cold applications

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NI	<ul style="list-style-type: none"> • Encourage pt. To lose weight and reduce occupational or recreational hazards • Provide education on nature and tx of OA, pain management, body mechanics, correct use of assistive devices, principles of joint protection and energy conservation • Assure the pt. that OA is a localized disease and severe deforming arthritis is not the usual course • Apply ice therapy to reduce swelling from inflammation • Apply heat therapy for stiffness • Educate pt. on warming up before exercising to decrease risk for injury 	<ul style="list-style-type: none"> • Educate pt. about the disease process and tx plan • Incorporate an alternating schedule for rest periods w/ activity throughout the day • Change daily activities to avoid overexertion and fatigue • Educate on proper body mechanics • Encourage pt. to make dressing easier by wearing shoes w/ Velcro fasteners and clothing w/ buttons or a zipper in the front instead of the back • Apply ice therapy to reduce swelling from inflammation • Apply moist heat therapy for chronic stiffness • Encourage gentle ROM exercises daily to keep joints functional • Educate on the importance of eating a balanced diet • Suggest activities such as listening to music, reading, exercising, and counseling to decrease depressive symptoms