

Mod 3 CA

Arthritis



General Arthritis Facts

Arthritis Prevalence

More than 50 million adults have doctor-diagnosed arthritis.
That's 1 in 5 people over age 18.

Almost 300,000 babies and children have arthritis or a rheumatic condition.
That's 1 in 250 children.

Number of people expected to have doctor-diagnosed arthritis
by the year 2030: 67 million.

Employment Impact

Working-age men and women (ages 18 to 64) with arthritis were less likely to be employed than those of the same age without arthritis.

One-third of working-age people with arthritis have limitations in their ability to work, the type of work they can do or whether they can work part time or full time.

People with arthritis or a rheumatic condition lose more workdays every year due to illness or injury than adults with any other medical condition.

People with osteoarthritis and rheumatoid arthritis –just two kinds of arthritis – miss a combined of 172 million workdays every year.

Comorbidities

Among adults with arthritis, nearly half (47 percent) have at least one other disease or condition.

57 percent of adults with heart disease have arthritis.

52 percent of adults with diabetes have arthritis.

44 percent of adults with high blood pressure have arthritis.

36 percent of adults who are obese have arthritis.

One-third of adults with arthritis age 45 and older have either anxiety or depression.



Drink lots of water. Carol Davis, PT, professor emerita of physical therapy at the University of Miami Miller School of Medicine

Davis explained that stretching, trigger points, massage, with any degree of pressure will affect the water flow in your body and will be more effective if you are well-hydrated. “We recommend drinking half your weight in ounces of water,” she said. So if you weigh 150 pounds, aim for 75 ounces of water daily.

Heat and Arthritis

1 Rule- ALWAYS GO FOR CLIENT COMFORT



How Does Heat and Cold Help Arthritis Pain?

Heat or cold therapy works by stimulating your body's own healing force. For instance, heat dilates the blood vessels, stimulates blood circulation, and reduces muscle spasms. In addition, heat alters the sensation of pain.

You can use either dry heat -- such as heating pads or heat lamps -- or moist heat -- such as warm baths or heated wash cloths.

Conversely, cold compresses reduce swelling by constricting blood vessels.

While cold packs may be uncomfortable at first, they can numb deep pain.

Caution make sure to put a towel between skin and cold pack

OA Osteoarthritis

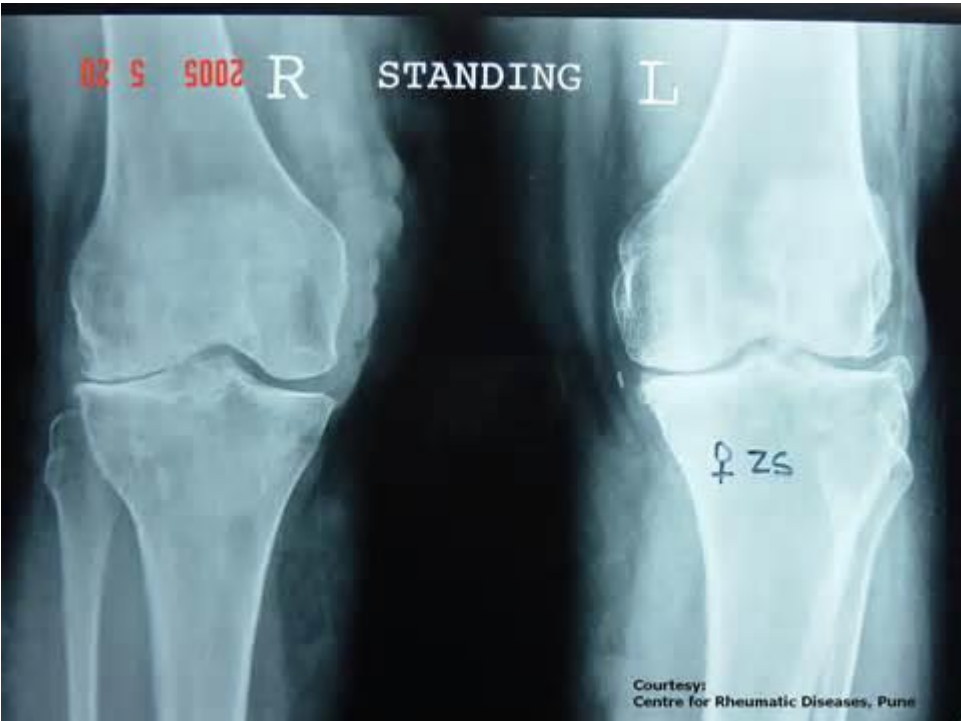
There are over 100 different types of arthritis. The most common are Osteoarthritis, Rheumatoid Arthritis and Gout Arthritis.

Osteoarthritis:

- The most common form of arthritis, affecting hips, knees and hands
- Affects more than 20 million Americans
- Also known as Degenerative Joint Disease (DJD)
- Occurs when the cartilage that covers the end of the bones slowly wears away and is more likely to occur with age



DJD



Signs and Symptoms

Key symptoms of arthritis include joint pain, swelling and stiffness, but each particular type of arthritis may yield different symptoms.

If you have any type of arthritis, you may experience:

- Stiffness, especially in the morning
- Joint pain and swelling
- Redness or tenderness around a joint
- Reduced ability to move

Symptoms of Osteoarthritis:

- Chills and fever during normal activities can indicate the gradual onset of Osteoarthritis
- Joint pain that worsens after exercise or putting weight on it
- Increase in pain in humid weather
- Fever during normal activities

Rheumatoid Arthritis:

- Long-lasting disease most commonly affecting hands, knees and wrists
- Typically affects people between ages 25-55
- Considered to be an autoimmune disease
- Begins when the immune system mistakes healthy tissue for a foreign substance and subsequently attacks itself, causing the joint lining to swell



Symptoms of Rheumatoid Arthritis:

- The disease begins gradually with fatigue, morning stiffness, weakness, muscle aches, loss of appetite
- Eventually joint pain appears in the same joints on both sides of the body
- When joint is not used for a period of time, it can become tender, stiff, warm and swollen
- Additional symptoms may include anemia, paleness, swollen glands, limited range of motion and numbness or tingling



RA criteria below:

- Morning stiffness
- 3+joints
- Arthritis of hand
- Symmetric arthritis
- Rheumatoid nodules
- RF in blood panel
- X-ray changes
 - Need 4 of the 7
 - 1-4 must occur for at least 6 wks

RA Stage Progression

- Stage I Early – no destruction
- Stage II Moderate – no joint deformity, osteoporosis w/ or w/out some bone and cartilage destruction
- Stage III Severe – cartilage and bone destruction with osteoporosis, joint deformity
- Stage IV Terminal – fibrous or bony ankylosis

Symptoms of Juvenile Rheumatoid Arthritis (Rheumatoid Arthritis in children):

- Loss of appetite
- Fever
- Weight loss
- Anemia
- Blotchy rashes on arms/legs
- Often seen limping in the am or after a nap
- Swelling in the knee(s)
- Rigid and slow





Juvenile Arthritis Symptoms

JRA – Classification Criteria

- JRA – Juvenile Rheumatoid Arthritis American College of Rheumatology 1970 three types of onset: oligo (pauciarticular), polyarticular, & systemic in the first 6 months of onset
- JCA Juvenile Chronic Arthritis (European League Against Rheumatism) 1977
- **JIA Juvenile Idiopathic Arthritis** proposed by the Pediatric Task force of the International League of Associations for Rheumatology ILAR (1993) – developed to achieve homogeneity within disease and categories.

Oligoarticular (affecting a few joints) JIA

- Arthritis in 1 to 4 joints during the first 6 months of disease
- Girls 1 to 4 years
- Knees, ankles, elbows
- Painless swelling of joints is common
- Uveitis: insidious, subacute, an internal inflammation of the eye. The condition involves the middle layers of the eye, also called the uveal tract or uvea. 15-20% have uveitis



JIA: Oligo – persistent

- No more than 4 joints affected throughout the disease course

JIA: Oligo - extended

- Affects a total of more than 4 joints after the first 6 months of disease.
At least 1/3 of children with Oligoarticular arthritis fall into this category
Outcome is more typical of RF+ polyarticular disease

Uveitis in JIA

- Intraocular inflammation affects iris and ciliary body
- Usually insidious and may be asymptomatic
- Activity of eye does not parallel joint disease
- For dx, a Slit lamp exam detects anterior chamber inflammation
- Girls, that have onset before age 7 at higher risk



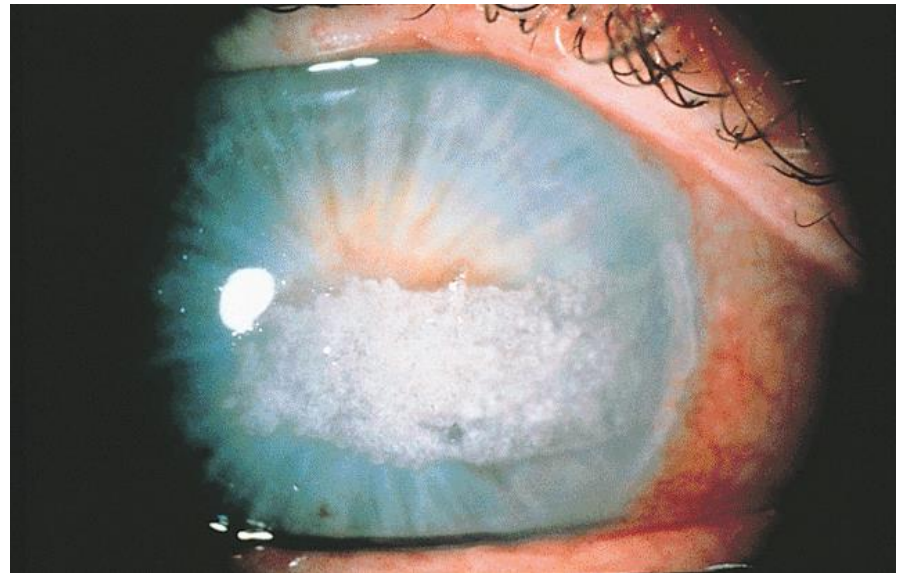
Uveitis in JIA

- Usually occurs after onset of j. arthritis. Highest risk is within 2 years of onset of arthritis. Majority develop eye disease within 5-7 years after onset
- 65% have bilateral involvement, unilateral may progress to bilateral
- Treatment includes topical steroids, SQ Methotrexate, IV Remicade; SQ Humira and
- Enbrel.

Prognosis of Uveitis in JIA

- Very good in 25% of cases
- 25% may require surgery for cataracts and/or glaucoma
- 50% require prolonged treatment for moderate to severe chronic inflammation; however, the prognosis is generally good

Complications: cataracts
20%, glaucoma 20%, band
keratopathy 16% (end stage
scarring)



Gout Arthritis:

Monosodium urate deposition – hyperuricemia **don't confuse w bunion!!!!!!**

- Painful condition causing joint pain most commonly in knees, wrists and the **big toe**
- Occurs when body overproduces or cannot get rid of uric acid
- Most common to occur in postmenopausal women, males and people with high blood pressure



Symptoms of Gout Arthritis

- Throbbing joint pains, frequently throughout the night
- Signs of tenderness, warmth and redness around affected joints
- Warmth, pain, swelling, and extreme tenderness in a joint, usually a big toe joint. This symptom is called podagra.
- The pain often starts during the night. It may get worse quickly, last for hours, and be so intense that even light pressure from a sheet is intolerable.
- Very red or purplish skin around the affected joint. The joint may appear to be infected.
- Limited movement in the affected joint.
- Peeling and itching of the skin around the affected joint as the gout gets better.



Gout Arthritis:

Purines (specific chemical compounds found in some foods) are broken down into uric acid. A diet rich in purines from certain sources can raise uric acid levels in the body, which sometimes leads to gout. Meat and seafood may increase your risk of gout. Dairy products may lower your risk.

Foods to limit (very high in purines):

Organ meats, such as liver, kidneys, sweetbreads, and brains

Meats, including bacon, beef, pork, and lamb

Game meats

Any other meats in large amounts

Anchovies, sardines, herring, mackerel, and scallops

Gravy

Beer

Foods to eat occasionally (moderately high in purines, but may not raise your risk of gout):

Fish and seafood (other than high purine seafood)

Oatmeal, wheat bran, and wheat germ

Artificial Sweeteners and Arthritis

Sugar substitutes such as Sweet 'N Low (saccharin), Splenda (sucralose) and NutraSweet (aspartame) have become staples of the American diet to reduce calorie intake and decrease the amount of sugar in food. The Food and Drug Administration has deemed aspartame safe for the U.S. population, and not a contributor to arthritis or other diseases.

Dr. Julian Whitaker, author of "The Lowdown On Aspartame/NutraSweet," published in the March 2000 issue of Health and Healing Journal of Complementary Medicine, cites in his article that rheumatoid arthritis was brought on by consumption of products containing aspartame. His review of numerous cases showed arthritis symptoms disappeared after eliminating aspartame from a patient's diet.

Dr. H.J. Roberts, author of "Aspartame Disease: An Ignored Epidemic," talked about the direct role products containing aspartame have on health in his article "Professional Opinion Concerning the Role of Products Containing Aspartame in Arthritis and Fibromyalgia." His 15 years of study of more than 1,200 patients found a dramatic decrease in joint pain after discontinuing use of products containing aspartame.

Dr. Tenesha Weine says in her article "Sickly Sweet: The Problem With Aspartame" that aspartame makes your body acidic, disrupting the normal pH balance, leading to joint pain and arthritis. In treating patients with arthritis, she finds that eliminating aspartame helps alleviate arthritis by bringing pH to a more alkaline level.

Once Arthritis starts to set in the joints mobilization is the key to help keep things from getting

- Immobilization due to pain is the kiss of death to joints. The result is contractures and deformity
 - You need to maintain passively pt's ROM esp. in non-weight bearing joints like shoulder and hand.
- Once immobilization begins then disc and or cartilage degeneration begins.
- Once this happens osteophytes begin to form (bone spurs)
- If left untreated then they form into syndesmophytes (bone fusion)



Osteophyte



Syndesmophyte



Psoriasis (Pso)

Psoriasis affects 2% of population

Almost a third of patients with Psoriasis will develop some form of arthritis

Psoriatic Arthritis

A chronic and inflammatory arthritis in association with skin psoriasis

Usually rheumatoid factor (RF) negative and ACPA negative

Distinct from RA

Psoriatic arthritis is an inflammatory disease, the manifestations of which may include:

- Inflammatory arthritis which over time typically progresses to involve greater numbers of joints and can result in joint damage in over 40% of patients
- Psoriasis
- Diffuse swelling of the fingers and toes known as dactylitis
- Enthesitis, which is the inflammation of the point of insertion of tendons, ligaments or joint capsules into bone. Shown here is swelling in the ankle region resulting from the inflammation of the Achilles tendon at the point of insertion into the heel. This is a common site of enthesopathy.

Psoriatic Arthritis



Psoriatic Arthritis

Although the exact cause is not known, psoriasis commonly runs in families. Aside from the possibility of a genetic susceptibility, most doctors believe that psoriasis involves the immune system.

This is because an increased number of white blood cells are present between the psoriasis skin layers and because this skin condition responds to immunosuppressant drugs. In addition, the following factors may contribute to psoriasis development, worsening or flare-ups:

- Cold, dry weather

- Skin injury

- Stress and anxiety

- Infection

- Certain medications

Although there are rarely any dangerous complications of this skin disorder, approximately 10-25 percent of people with psoriasis are at risk for a painful and possibly extreme form of arthritis, called psoriatic arthritis. General symptoms of psoriatic arthritis include:

- Pain in affected joints
- Swollen joints
- Joints that are warm to the touch

Asymmetric – This is the mildest form of psoriatic arthritis, and it usually affects less than five joints on one side of the body; typical culprits are the hip, knee, ankle or wrist.

Symmetric – Usually affecting five or more joints on both sides of the body, symmetric psoriatic arthritis is more common in women and tends to be severe.

Fingers and Toes – Distal interphalangeal (DIP) joint predominant psoriatic arthritis is rare and occurs mostly in men. This type of arthritis affects the small, distal joints in the fingers and toes and often causes thickening, pitting and discoloration of the nails.

Spine – Called spondylitis, this form of psoriatic arthritis causes inflammation in the spine as well as stiffness and inflammation in the neck, lower back and sacroiliac joints.

Destructive – A small percentage of people with psoriatic arthritis have a severe, painful and disabling form called **arthritis mutilans**. Over time, arthritis mutilans destroys the small bones of the hands, especially the fingers, leading to permanent deformity and disability.

- “The biggest and fastest growing part of American’s drug problem is prescription drug abuse.”

— National Institute on Drug Abuse



- Addictive,
- Toxic to our organs over time,
- Many side effects
- Don't improve conditions that cause pain.



Key take away points on Arthritis

1. Patient Comfort Priority (placement, hot, cold)
2. When flare ups occur do passive joint ROM
 - a. start with non involved joints adjacent to effected joint first
3. Be cognizant of weather, barometer changes
4. Modalities such as laser, estim (for muscles) trigger points, may help
5. Consult with Drs and other treating staff regularly

STOP

End of Arthritis

