

# LIVING WITH ARTHRITIS



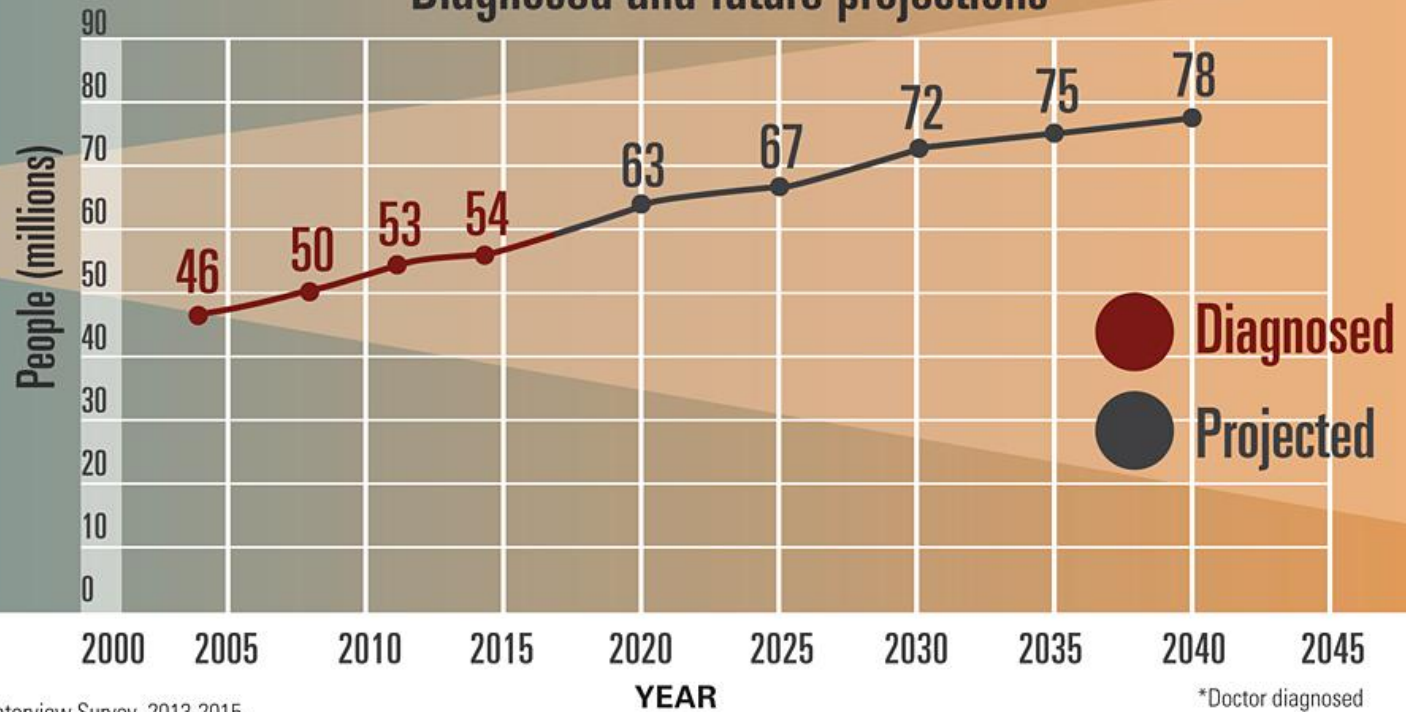
# Arthritis Prevalence

- By conservative estimates, about 58 million U.S. adults have doctor-diagnosed arthritis (1 in 4)
- As the population ages, these numbers are projected to increase dramatically. Number of people expected to have doctor-diagnosed arthritis by the year 2040: more than 78 million.
- The most common type of arthritis is osteoarthritis, which affects an estimated 31 million Americans.
- For people over 65, the numbers are much worse

# Arthritis Prevalence



**ARTHRITIS** will **INCREASE** as the population grows and ages  
Diagnosed and future projections\*

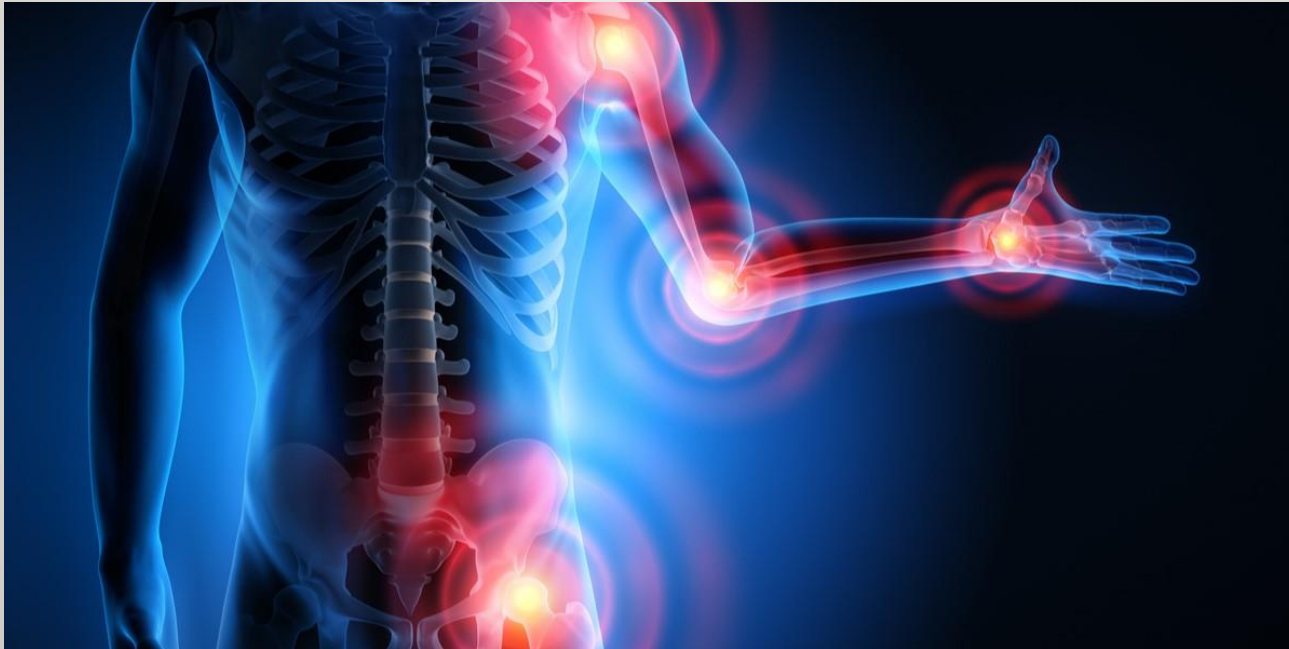


SOURCE: National Health Interview Survey, 2013-2015.

\*Doctor diagnosed

# Arthritis Prevalence

- Arthritis is more common in women (23.5%) compared with men (18.1%), more common among adults with fair/poor health (40.5%) compared with those who have excellent/very good health (15.4%).





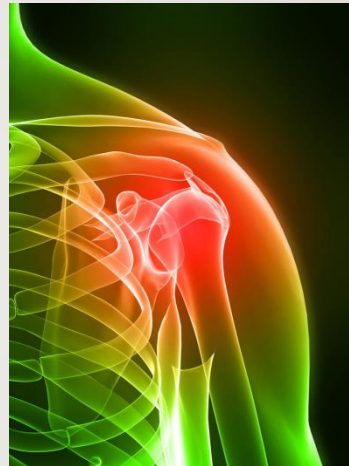
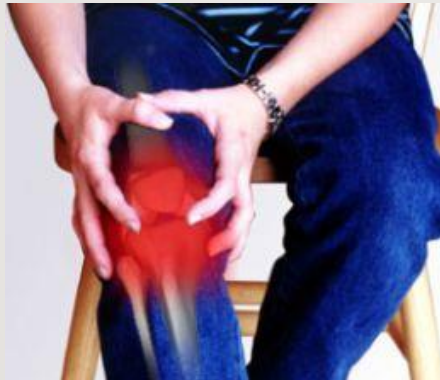
# Arthritis Prevalence

- Arthritis is less common among adults who meet physical activity recommendations (18.1%) compared with adults who are insufficiently active or inactive (23.1% and 23.6%, respectively).
- Arthritis prevalence increases with age.



# What is “Arthritis”?

- Arthritis is "inflammation of the joint" from the Greek "arthron" for joint and Latin "itis" for inflammation.



# What is “Arthritis”?

- It is an informal way of referring to joint pain or joint disease.
- People of all ages, genders and races have arthritis.
- It is the leading cause of disability in the United States.



# Types of Arthritis

- Arthritis refers to more than 100 different diseases causing pain, swelling and limited movement in joints and connective tissues throughout the body.
- Arthritis is usually chronic and lasts a lifetime.
- The 3 most prevalent types of arthritis are osteoarthritis (OA), fibromyalgia, and rheumatoid arthritis (RA).



# Osteoarthritis

- Degenerative joint disease, more common among older adults, but may appear decades earlier.
- Begins when joint cartilage breaks down, sometimes eroding completely, creating a bone-on-bone joint (ouch!)
- The joint loses shape, bone ends thicken, and spurs develop.
- Any joint can be affected; most common are the knee, hip, feet, and fingers

# Osteoarthritis

- OA is not fatal but it is incurable.
- Symptoms of pain and stiffness can persist for long periods of time, leading to difficulty in walking, stair climbing, rising from a chair, lifting and carrying.



# Fibromyalgia

- Fibromyalgia is a condition with generalized muscular pain, fatigue, and poor sleep
- It affects about 3.7 million Americans.
- It means pain in the muscles, ligaments, and tendons.
- It may feel like a joint disease, but it is not a true form of arthritis and does not cause joint deformity.
- Instead, it is a form of soft tissue or muscle rheumatism.



# Fibromyalgia



## Specific symptoms:

- Widespread Pain
- Fatigue
- Non-restful Sleep
  
- Cognitive difficulties
- Headaches
- TMJ pain
- Chest Pain / Palpitations
- Irritable bowel syndrome
- Urinary Problems
- Pelvic Pain
- Numbness and tingling
- Skin Rashes / Skin sensitivit
- Chemical Sensitivity



# Rheumatoid Arthritis

- Rheumatoid arthritis is the 3<sup>rd</sup> most common form of arthritis.
- It is an autoimmune disease affecting 2.1 million Americans, 3 times more women than men.
- It involves inflammation of the membrane lining a joint, causing pain, warmth, redness and swelling.
- RA can strike at any age but usually appears between ages 20 and 50.



RA causes chronic **swelling**  
**and pain** that is sometimes  
severe.

# Rheumatoid Arthritis

- RA starts slowly over several weeks to months.
- The small joints of the hands and the knee are most commonly affected, but it can affect most joints of the body.
- Severe complications, decline in ability to function and premature death are frequently associated with RA.
- It is highly variable and some people become bed-ridden and other run marathons. It is difficult to control and can cause severely deformed joints.

# Other Forms of Arthritis

- Gout—a metabolic disorder leading to high uric acid and crystal formation in joints, especially the big toe
- Spondylarthropathies—inflammatory disease of the spine that can result in fused vertebrae and a rigid spine
- Juvenile arthritis
- Systemic lupus erythematosus –an autoimmune disorder that can involve skin, kidneys, blood vessels, joints, the nervous system, heart and other organs

# Prevalence of Types of Arthritis

Arthritis Type	No. Cases in U.S.	Commonly Affected Joints
osteoarthritis	20.7 million	hands, spine, hips, knees
fibromyalgia	3.7 million	generalized pain in muscles, tendons, ligaments
rheumatoid arthritis	2.1 million	wrist, hands, knees, feet, cervical spine
gout	2.1 million	great toe, ankles, knees, wrists
spondylarthropathies	412,000	spine, hip, shoulder girdle, knees
juvenile arthritis	285,000	wrist, hands, knees, feet, cervical spine
lupus	239,000	hands, knees, elbows, feet



# Treatment of Arthritis



- The key to management and treatment of arthritis is early diagnosis and a plan individualize to the needs of the patient.
- If a person has pain, stiffness, swelling or difficulty moving a joint for more than 2 weeks, a medical appointment should be made.

# Arthritis Treatment Goals

There are 4 main goals in treating arthritis:

- Easing pain
- Decreasing inflammation
- Improving function
- Lessening joint damage



# Arthritis Treatment Goals

- Patient education
- Medication
- Exercise
- Weight control
- Rest
- Use of heat and cold
- Joint protection techniques
- Sometimes surgery (e.g. Joint replacement)



# Education for Arthritis

- Learning about the disease and about the tools to help adjust to it and deal with the pain are important goals
- Learning ways to limit the pressure on involved joints and not add to the damaged joints
- Learning what are the best medications to alleviate pain/inflammation
- Finding helpful therapies—self-help devices, exercises, applications of heat/cold

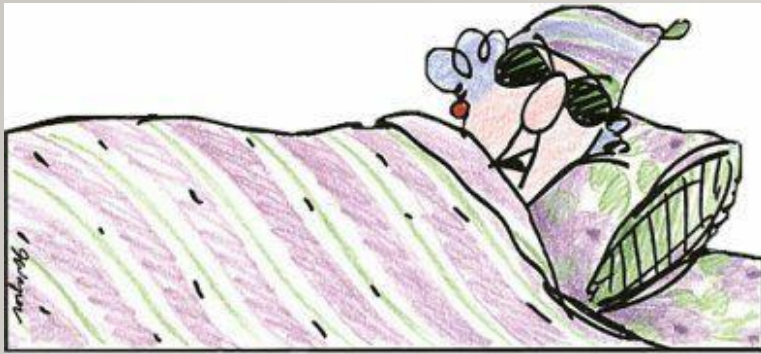


# Medications for Arthritis

- Acetaminophen (Tylenol) – first drug to try for mild to moderate pain. Standard dose for OA is 1000 mg up to four times a day. Always check with your doctor to see if you can tolerate that much.
- NSAIDs – might be considered when pain is more severe. Patients with heart disease need to use with caution. Always check with your doctor!

# Other Therapies

- Glucosamine/chondroitin – a combination that might be helpful for some patients
- Topical capsaicin—a heat treatment
- Heat & cold—heating pads/ice packs
- Weight loss – a 15 pound weight loss can subtract 50% of one's pain
- Surgical solutions –these have come a long way. Pain can be greatly relieved and there can be major restoration of function. Very serious consideration, obviously.



# Arthritis & Sleep

- Improved sleep may be the best medicine for people in pain. Sleep disruption appears to be an overlooked consequence of arthritis for many people.
- The insomnia associated with arthritis may be due to chronic pain, arthritis related stress, or one of the many medications required for disease control.



# Helpful Lifestyle Changes

- Exercising to improve joint range of motion, strengthen muscles and improve cardiorespiratory endurance is critical
- Resting as needed to recover from exercise or during flares
- Eating a balanced diet
- Losing weight to reduce stress on joints
- Getting enough sleep





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"At least your arthritis didn't prevent you from opening that jar of pickles!"

# Assistive Devices



# Exercise is Vital

- Strengthen the muscles around your joints
- Help you maintain bone strength
- Give you more strength and energy to get through the day
- Make it easier to get a good night's sleep
- Help you control your weight
- Make you feel better about yourself and improve your sense of well-being

# No Exercise is a Huge Mistake

- Lack of exercise actually can make your joints even more painful and stiff.
- Keeping your muscles and surrounding tissue strong is crucial to maintaining support for your bones.
- Not exercising weakens those supporting muscles, creating more stress on your joints.

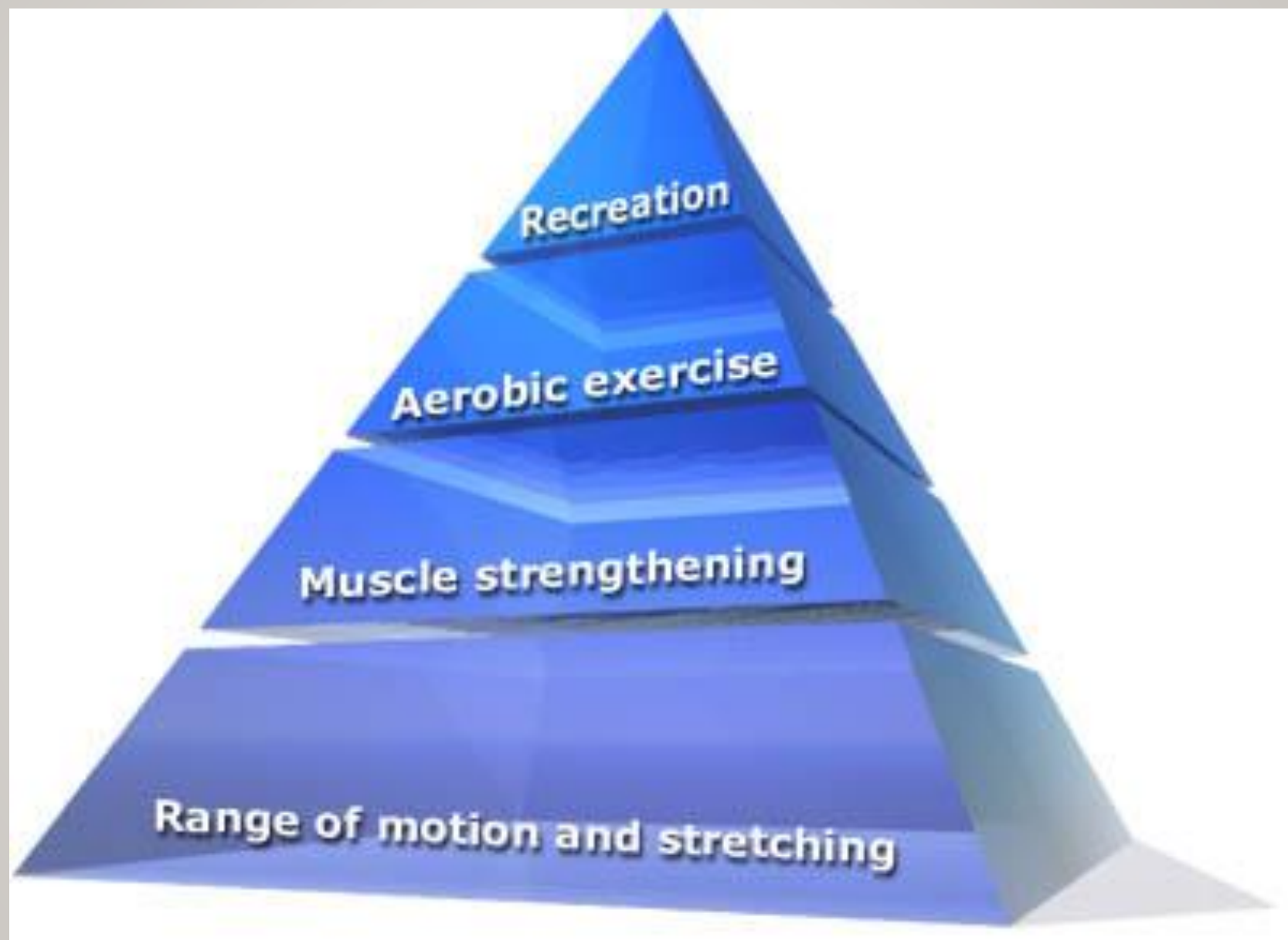


# Exercise for Arthritis

- Rest is important, especially during arthritis flares. However, inactivity can lead to weak muscles, stiff joints, reduced range of motion, and decreased energy and vitality.
- Rheumatologists routinely advise a balance of physical activity and rest, individualized to meet each patient's needs.

# Exercise Training Objectives

- Preserve or restore range of motion and flexibility around each affected joint
- Increase muscle strength and endurance to enhance joint stability
- Increase aerobic conditioning to improve psychological state and to decrease risk of disease; help in weight control; help in energy state



Recreation

Aerobic exercise

Muscle strengthening

Range of motion and stretching

# RANGE OF MOTION EXERCISES

- Stretching! Loss of joint range of motion results in a tightening of surrounding tendons, muscles and other tissues.
- Acutely inflamed joints should be put through gentle range of motion exercises several times a day with the assistance of a therapist or trained family member. Once inflammation controlled, a once daily routine should suffice.
- Overzealous stretching or improper technique can have harmful effects and obviously should be avoided.

# Muscle Strengthening

Both isometric and isotonic strengthening exercises are recommended

- Isometric exercises can help build strength without adversely affecting an inflamed joint
- Isotonic exercises (weight lifting, calisthenics) allow the joints to move through a limited or full range of motion while strengthening muscles.
- Super high-repetition, high-resistance and high-impact muscle strengthening exercises are not recommended (duh!)



# Cardiovascular Exercise

- Low impact activities, such as swimming, water aerobics, walking, cycling, low impact dance aerobics and rowing can improve cardiovascular fitness without negatively affecting arthritis
- Exercise can be accumulated throughout the day, with an eventual goal of 30-60 minutes nearly daily activity. Interval approaches (mixture of work and rest bouts) can be considered for some individuals.

# Exercise Program Recommendations

- Each exercise session should begin and end with range of motion exercises.
- Stair climbing, running or other high-impact activities should be avoided in patients with arthritic knees or hips.
- Footwear that provides maximum shock attenuation during exercise should be worn.
- Orthotics should be considered for biomechanical correction at the ankles and knees.

# Recreational Exercise



- Golfing, gardening, hiking on gentle terrain, and other hobbies requiring physical activity are encouraged. Aquatic exercises classes are an excellent consideration too.

# Take Home Points

- People with arthritis need to be aware of their own personal capabilities and limitations
- Medications can help—consult your doctor for the best approach for you
- Exercise is critical—
  - Flexibility training (stretching) for joint mobility
  - Strength training for joint integrity
  - Cardiovascular training for health status

(does this exercise program sound at all familiar?)



# Take Home Points

Important!

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- Need to manage pain
- Need to keep moving

