

# OSTEOARTHRITIS AND ITS IMPACT ON EMPLOYERS AND EMPLOYEES



Advancing Osteoarthritis Awareness,  
Resources and Education

Serena E. Weisner, MS | Director of Community Programming  
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North Carolina Business Group on Health

# Presentation Outline

Overview of Osteoarthritis, including its causes, symptoms, and prevalence



Information about OA & comorbidities



An understanding of how OA impacts those in the workforce



A summary of the management strategies for OA



An opportunity to provide the AF's Walk With Ease program to employees



**OVER 50% OF ADULTS (18.7 MILLION) WITH OSTEOARTHRITIS ARE OF WORKING AGE**



**\$71.3 BILLION IN ANNUAL EARNING LOSSES**

**1 in 7 ADULTS HAVE OSTEOARTHRITIS**



**ANNUAL MEDICAL COSTS: \$65.5 BILLION**



**32.5 MILLION ADULTS HAVE OSTEOARTHRITIS**



**AVERAGE PER PERSON PER YEAR IN MEDICAL COSTS: \$2,018**

# Osteoarthritis (OA)

- OA is the **most common** type of arthritis.
- OA is not simply caused by “wear and tear” of the joint but is rather a complex disorder characterized by molecular, anatomic, and physiologic changes.



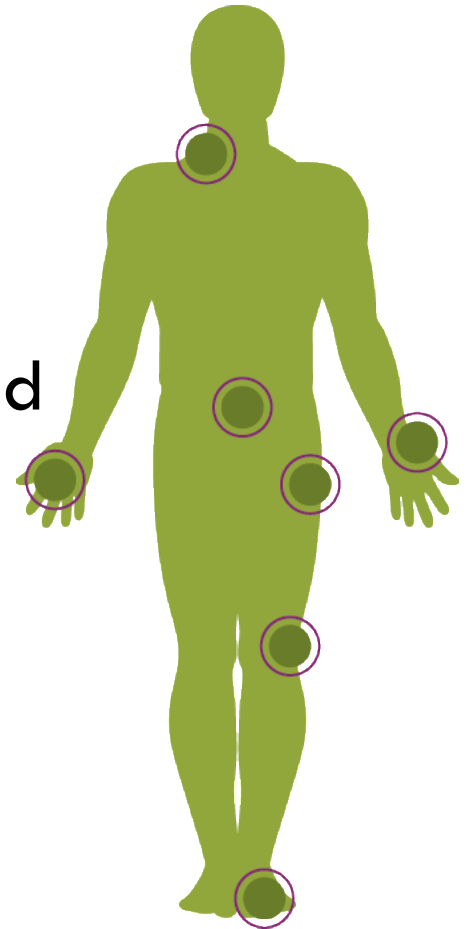
# What causes OA?

Modifiable

- Being overweight
- Joint injury/trauma (e.g. car accident, sports injury)
- Joints that are not properly formed
- A genetic defect in joint cartilage

Non-Modifiable

- Stresses on the joints from certain jobs and playing sports
- Female gender (after 45)
- Aging



# OA vs. RA

Healthy joint



Osteoarthritis



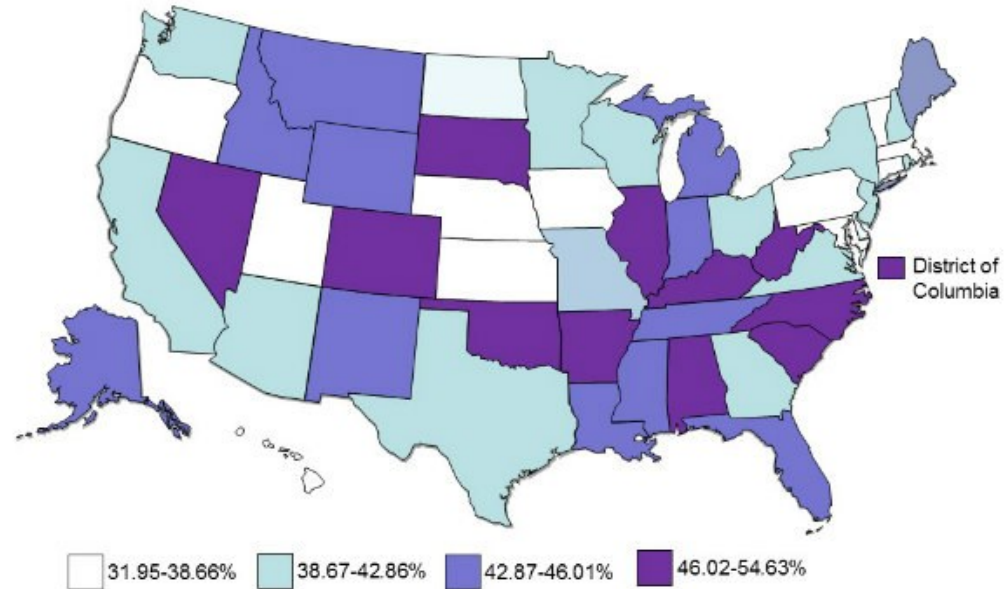
Rheumatoid arthritis



# Prevalence of OA

- 54 million U.S. adults have arthritis
- OA is THE most common arthritis (32.5 million)
- The majority of adults with OA, 16.7 million, are of “working age” (18-64 years)
- Arthritis is the most common cause of disability in U.S. adults

Age-Adjusted Prevalence of Arthritis-Attributable Work Limitations Among Adults with Arthritis, 2015

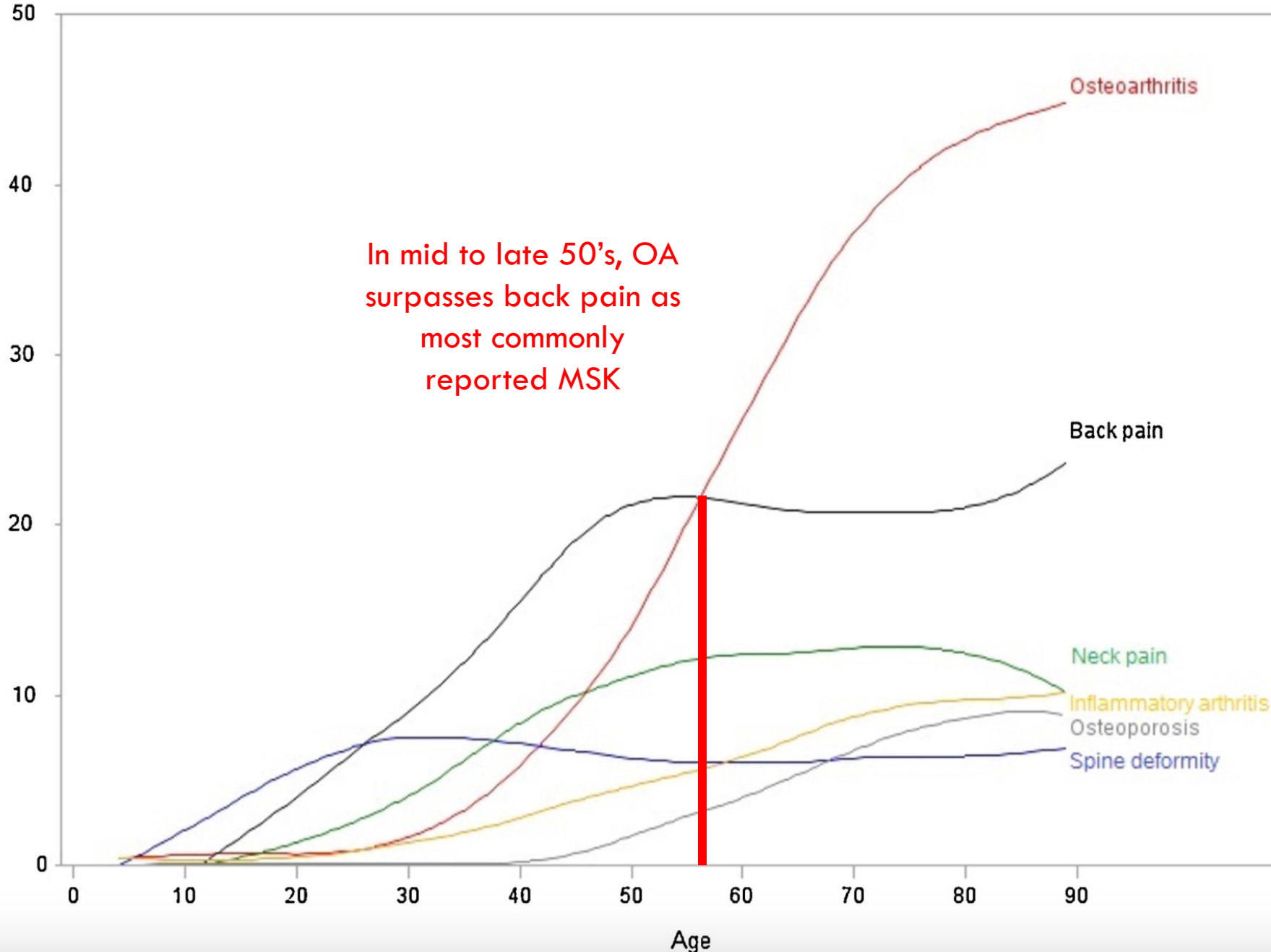


Source: 2015 BRFSS; CDC unpublished data.

# Prevalence of self-reported musculoskeletal diseases by age

Palazzo, et al, <https://doi.org/10.1016/j.rehab.2016.01.006>

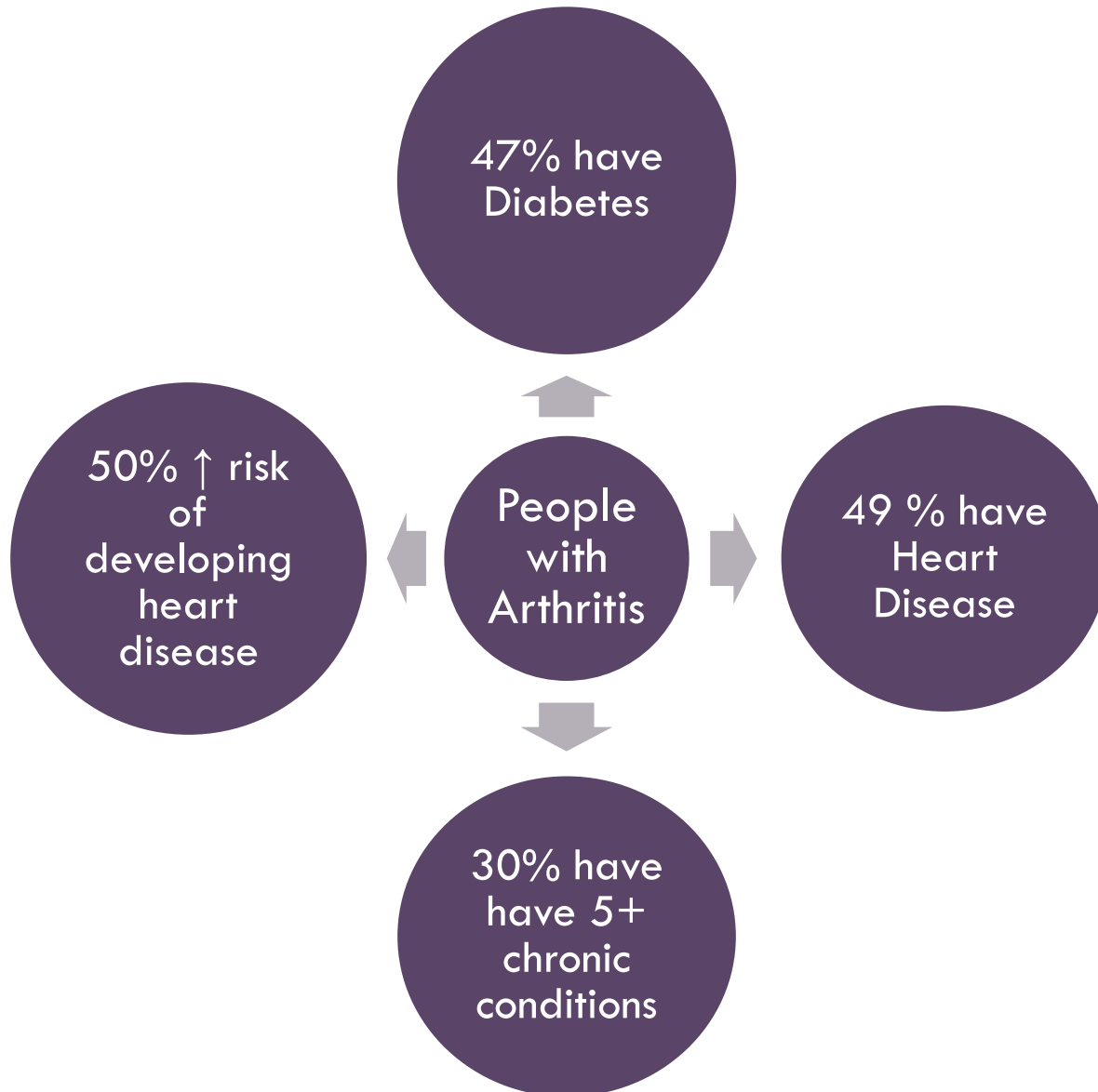
Prevalence %



In mid to late 50's, OA surpasses back pain as most commonly reported MSK



# OA & Comorbidities



# OA & Mental Health

## DEPRESSION

One third of people with arthritis over the age of 45 suffer from depression or anxiety <sup>1</sup>

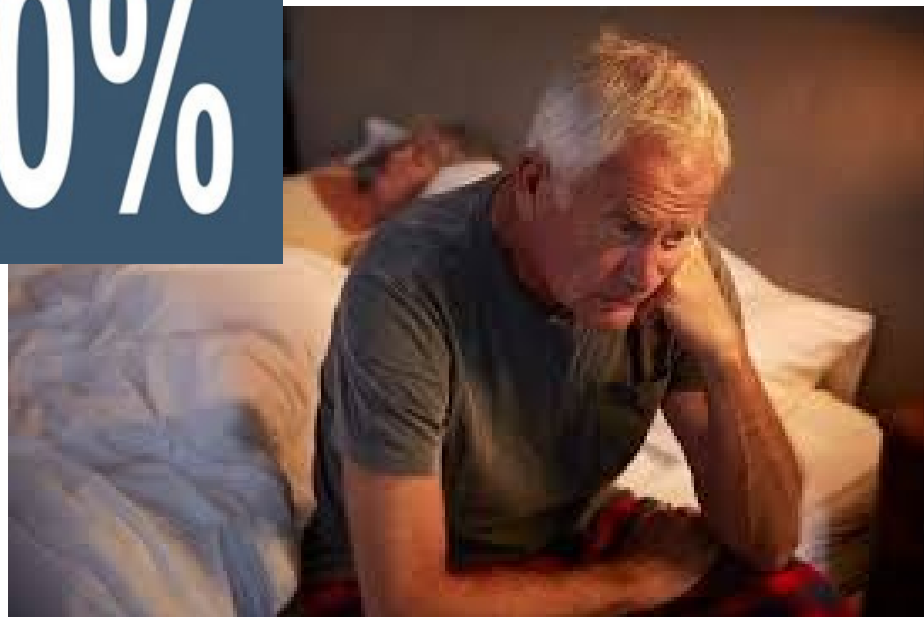
People with OA are at greater risk of depression because of increased disability and fatigue associated with their pain <sup>2</sup>



# OA & Sleep



70%



# Cost of OA

- Among the most expensive conditions to treat when joint replacement surgery is required.
- OA was the 2nd most costly health condition treated at US hospitals in 2013.
  - In that year, it accounted for \$16.5 billion, or 4.3%, of the combined costs for all hospitalizations.
- OA was also the most expensive condition for which privately insured patients were hospitalized, accounting for over \$6.2 billion in hospital costs.



## OA Impact on Employers

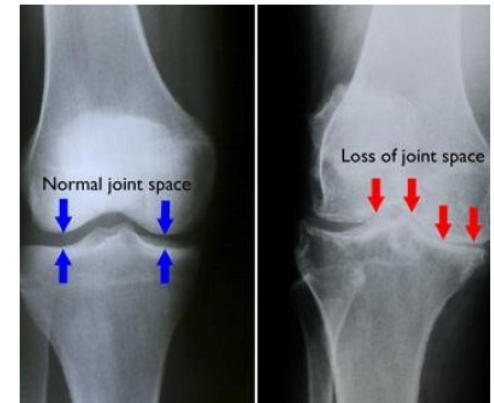
# OA and Employees



The risk of an employee developing hip OA is 25%



\$164 billion in lost wages each year due to absence



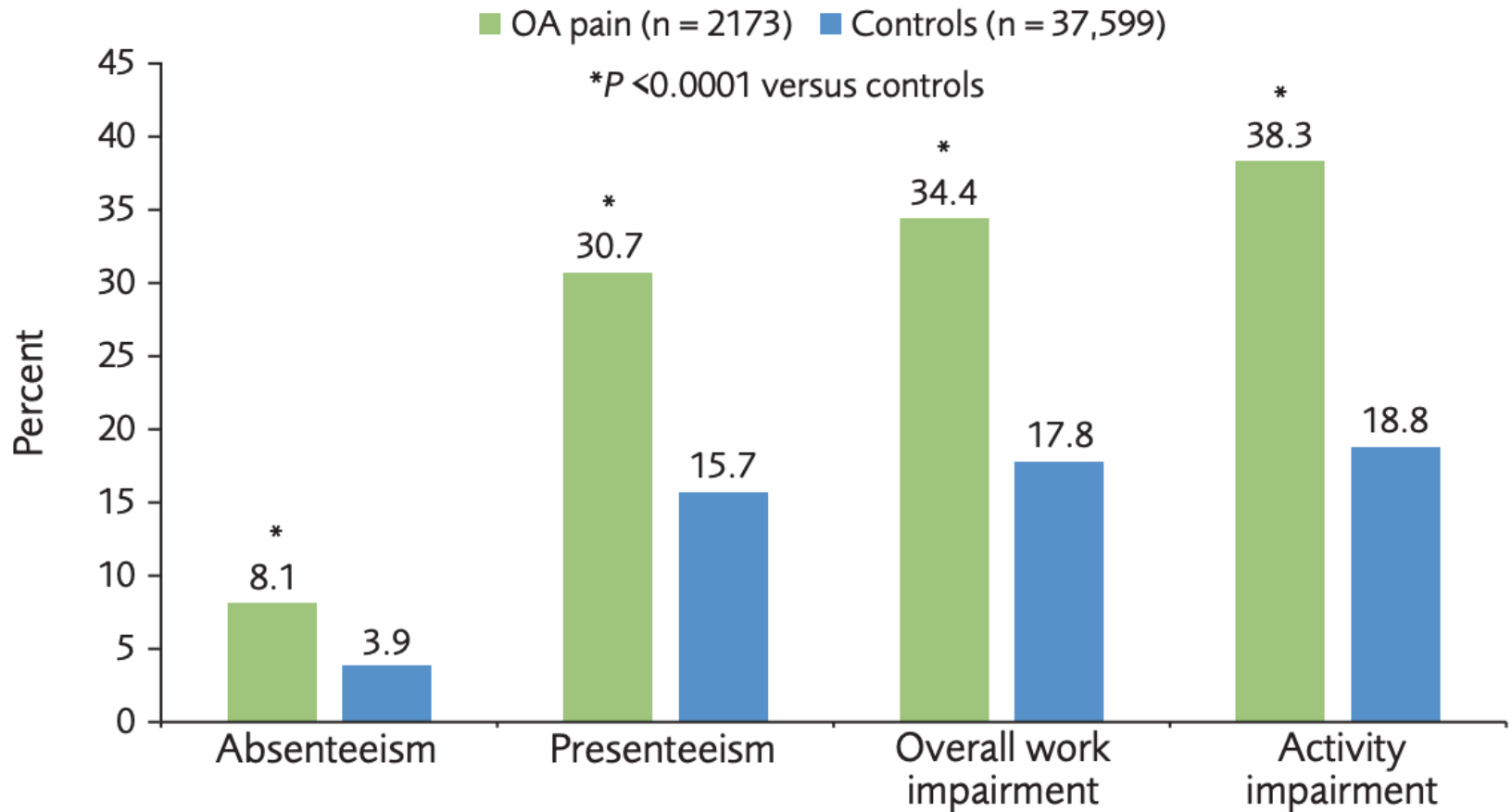
The risk of an employee developing knee osteoarthritis is 45%

# OA Impact on Employers

## Sample Employers in NC

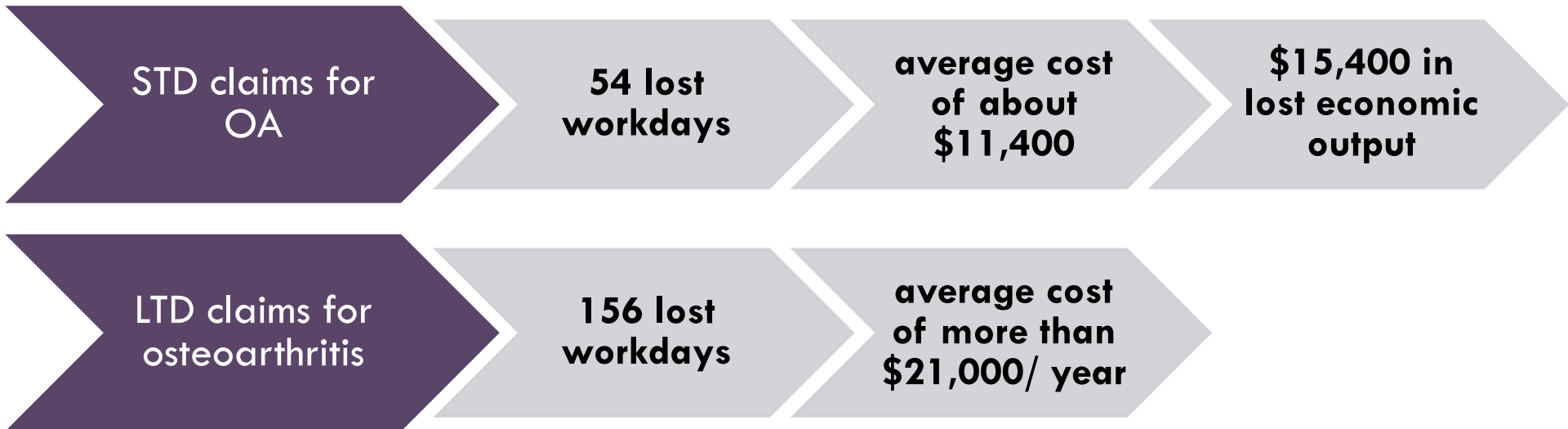
- ✓ UNC – Chapel Hill = 13,000 = \$2.8 million
- ✓ Duke Energy = 29,000 employees = \$6.3 million
- ✓ Bank of America = 137,000 employees = \$30 million

# Work Productivity and Activity Impairment

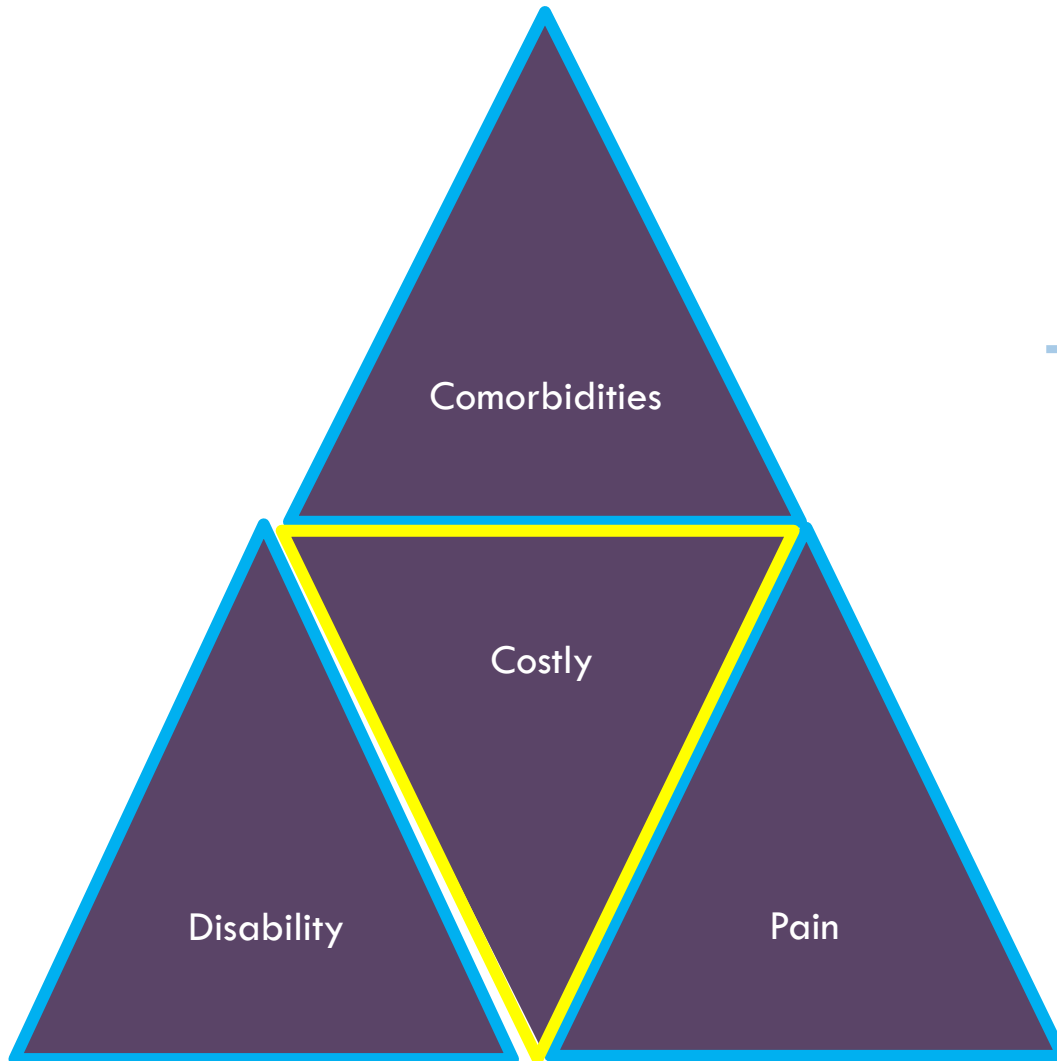




# Disability Claims



# Key facts for employers



- Most common cause of disability among adults.
- OA and other forms of Arthritis are the leading cause of missed work days in the US

# OA is challenging to manage

Interventions can reduce pain, improve function, but:

- No cure or remission
- No strategy to reduce progression
- No proven way to prevent need for joint replacement
- Structural damage is irreversible and progressive
- Available pharmacologic treatments are associated with significant adverse events

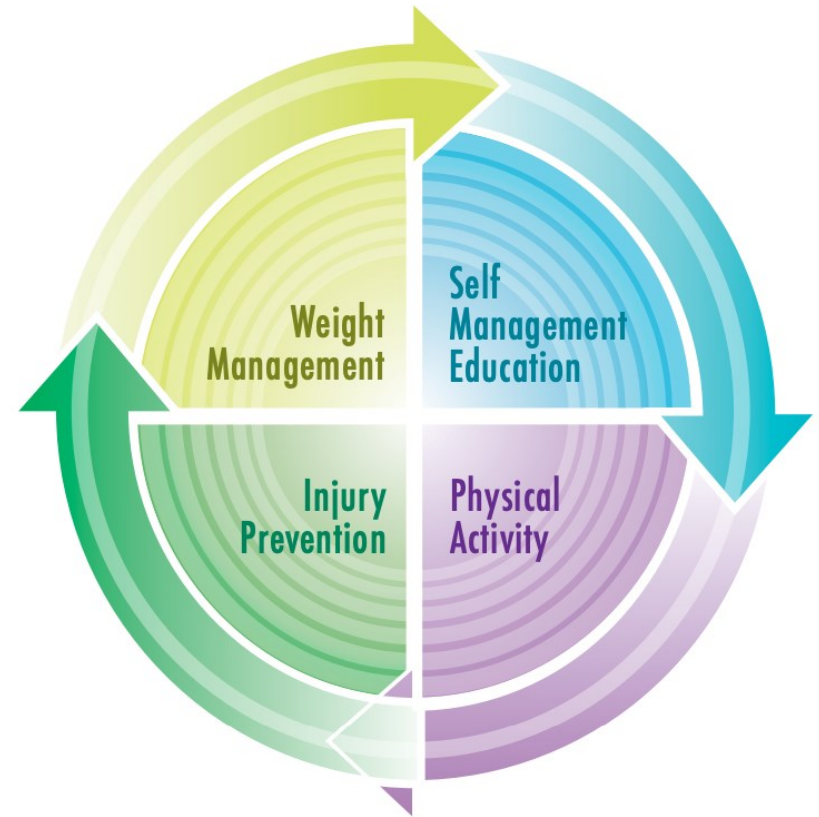
One size fits all strategy may not be appropriate

# A Vicious Cycle



# Management of OA

- Ultimate goal: ↓ pain to ↑ function
- A comprehensive plan for the management of OA may include:
  - ✓ Educational
  - ✓ Behavioral
  - ✓ Psychosocial
  - ✓ Physical interventions
  - ✓ Topical, oral, and intraarticular medications



# Educational, behavioral, psychosocial & physical approaches

- Self-Management Strategies
  - ▣ Exercise
    - Increase physical activity
    - Use Physical Activity Guidelines as a benchmark
    - Reduce sedentary behavior
    - Evidence-based physical activity programs
  
  - ▣ Weight loss 10% ↓ weight can = 50% ↓ pain
  
  - ▣ Self-efficacy and education



# CDC's Lifestyle Management Programs for Arthritis

- **Physical activity programs**
  - Active Living Every Day
  - Fit & Strong!
  - Walk With Ease
  - Enhance Fitness
  
- **Self-Management Education**
  - Arthritis Self-Management Program
  - Chronic Disease Self-Management Program

# How can employers support OA care?

1

In-depth understanding of the underlying mechanisms involved with work-related OA onset and progression

2

Develop effective interventions and policies that improve the work environment for OA prevention and management

3

Investigate occupation-specific progression of OA during the occupational lifespan of workers

4

Implement known effective interventions such as physical activity programs and self-management education



# WWE Self-Directed Portal



LESS PAIN. MORE GAIN.

## WALK WITH EASE

The Arthritis Foundation's Walk With Ease program is proven to reduce the pain of arthritis and improve overall health. Our online portal provides patients with:

*A WALK WITH EASE*  
GUIDEBOOK WITH TOOLS TO  
DEVELOP A WALKING PLAN



WEEKLY ENGAGEMENT EMAILS  
TO KEEP YOU MOTIVATED AND  
MOVING FORWARD!

[www.walkwitharthritis.org](http://www.walkwitharthritis.org)  
[oaaction@unc.edu](mailto:oaaction@unc.edu)

# Examples



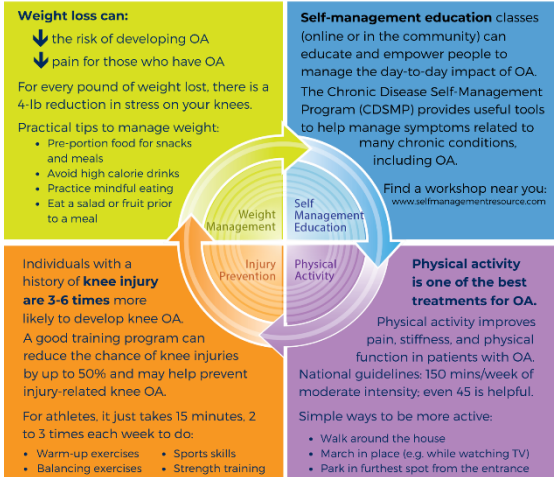
# OACareTools = OA Toolkit for healthcare providers

OACARETOOLS.ORG

## Downloadable patient handouts

### Osteoarthritis | Prevention & Self-Management

Over 32 million Americans - 1 in almost every 7 adults - have osteoarthritis (OA). This disease of the joints can cause pain, stiffness, and weakness and often leads to disability. Below are strategies you can use to avoid or manage OA and improve your quality of life.



For more tips and resources, visit: <https://oaaction.unc.edu/rxlinks/>



### Osteoarthritis (OA)

Get to know OA with these simple facts

#### WHAT IS OSTEOARTHRITIS?

Osteoarthritis (OA) is the most common form of arthritis. OA commonly occurs in the knees, hips, lower back and neck, small joints of the fingers, and the bases of the thumbs and big toes. The shoulders and jaw joints may also be affected. Other joints are rarely involved, except as a result of joint injury or unusual stress on the joint.

OA affects all parts of a joint, but in particular, cartilage. In normal joints, a firm, rubbery material called cartilage covers the end of each bone. This cartilage provides a smooth, gliding surface for joint motion and acts as a cushion between the bones. In OA, this cartilage breaks down, leading to symptoms such as pain and swelling and problems using the joint.

#### FACTORS THAT IMPACT OA

**Aging** | OA becomes more common as people age.  
**Gender** | Under 50 years of age, OA is more common in men. At age 50 and over, it's more common in women.  
**Excess body weight** | Overweight or obesity contributes to more severe symptoms and impact of OA, especially OA of the knees.  
**Joint injury** | Traumatic injury to a joint, whether from sports or an accident, can increase the risk of developing OA, or accelerate OA.

#### TREATMENT

There is no cure for OA, but treatments can reduce pain and help you move more comfortably.

- ✓ Exercise
- ✓ Weight loss
- ✓ Heat/cold
- ✓ Braces
- ✓ Shoe inserts
- ✓ Occupational or Physical Therapy
- ✓ Oral or topical medications
- ✓ Self-management classes



For tips and resources, visit <https://oaaction.unc.edu/rxlinks/>

StandUp2OA.org

### Resources for People with Arthritis

Visit <https://oaaction.unc.edu/RxLinks> to access these resources.

Tips to set goals and overcome barriers to become and stay physically active.	Active Living Every Day
Find water aerobics classes in your area for a low-impact workout with less pain.	Arthritis Foundation Aquatics Program
Tips to start or maintain an exercise program for those with osteoarthritis.	Arthritis Foundation Exercise Program
Learn about this group physical activity class and find one in your community.	EnhanceFitness
Find an exercise class in your area to have better movement in joints with less pain.	Fit and Strong
Get started with 4 progressive strength-training exercises and more.	Get Active
Find programs to help you manage your osteoarthritis symptoms, improve your quality of life, and reduce healthcare costs.	Self-Management Resource Center (Arthritis Self-Management Program)
Learn about the walking program that is proven to reduce the pain of arthritis in joints your overall health.	Walk With Ease
Get motivation and tips to help you lose weight for less joint pain.	Weight Management
Take steps now to prevent pain in the future.	Osteoarthritis Prevention
Get moving to prevent pain.	Tips to Increase Physical Activity





## A NATIONAL PUBLIC HEALTH AGENDA FOR OSTEOARTHRITIS: **2020 UPDATE**

From the Centers for Disease Control and Prevention, Arthritis Foundation, and the Osteoarthritis Action Alliance.



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention



[www.cdc.gov/arthritis](http://www.cdc.gov/arthritis)

## Q&A

Serena Weisner, MS

*Osteoarthritis Action Alliance*

*Director of Community Programming*

[Serena\\_Weisner@med.unc.edu](mailto:Serena_Weisner@med.unc.edu)

<https://oaction.unc.edu>