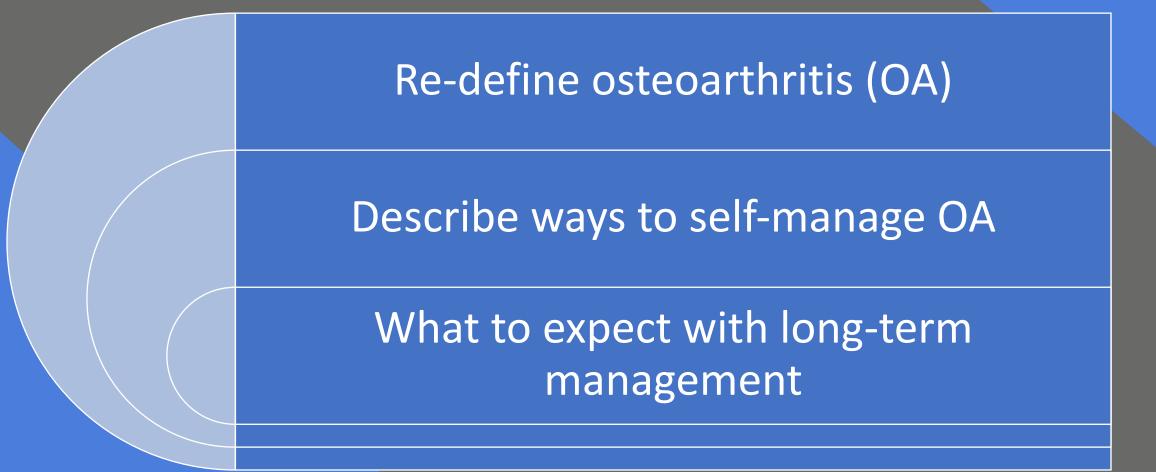
Self-management of Osteoarthritis

Joseph Douglass, SPT, CSCS

2020

Goals



Outline

General Terms

Basic Principles

• Exercise

• Self-management

Joint-specific Information

Introduction

- Osteoarthritis (OA) = break down of the cartilage that cover the ends of bones
- Everyone's cartilage breaks down over time, it is a normal process of aging
- Many people have OA but do not experience pain
- "Wrinkles on the inside"

Pressure is the Name of the Game

Avoid Joint Compression

Avoid Highimpact Activities

Avoid Carrying Heavy Loads (weight)

Basic Exercise Guidelines

Cardio and Nonweight Bearing Exercise

Strength is the Goal

Regularity and Consistency

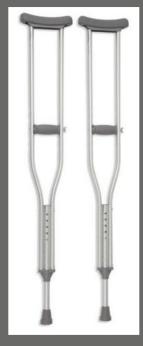
Assistive Devices

Walkers





Crutches



Self-management

Correct Poor Alignment

- Shoes
- Inserts
- Cane

Decrease Joint Forces

- Lose weight
- Shoes with more cushion
- Stronger muscles
- Stretch tight muscles
- Run slower
- Perform low-impact exercise

Joint-specific Information

Hip and Knee OA

Thigh and Hip Muscle Strength

Aerobic Exercise

Balance

Spine OA

Abdominal Strength*

Exercises 4+ days per Week

Pre-surgical Exercise

Shoes with Cushion

Avoid Highimpact Activity

What about Medications?

- This is a good question for your medical provider
- Medications can help pain, but do not help the health of your joint
- No class of medications (Advil, Tylenol, opioids) have shown any long-term benefits for function

Main Take-aways

- OA is not a "disease"
 - Wrinkles on the inside

You can manage your symptoms and live an active life with OA

- Stopping activity is NOT helpful
 - Consistency is key
- Reduce the pressure on your joints
 - Lose weight

Thank you!

References

1. What Is Arthritis? Available at: https://arthritis.org/health-wellness/about-arthritis/understanding-arthritis/what-is-arthritis. Accessed March 24, 2020.

2. Sands W, Wurth J, Hewit J. BASICS OF STRENGTH AND CONDITIONING MANUAL. NSCA 2012.

3. Fernandes L, Hagen KB, Bijlsma JWJ, et al. EULAR recommendations for the non-pharmacological core management of hip and knee osteoarthritis. *Ann. Rheum. Dis.* 2013;72(7):1125-1135. doi:10.1136/annrheumdis-2012-202745.

4. Fransen M, McConnell S, Harmer AR, Van der Esch M, Simic M, Bennell KL. Exercise for osteoarthritis of the knee: a Cochrane systematic review. *Br. J. Sports Med.* 2015;49(24):1554-1557. doi:10.1136/bjsports-2015-095424.

5. Skelly AC, Chou R, Dettori JR, et al. *Noninvasive Nonpharmacological Treatment for Chronic Pain: A Systematic Review*. Rockville (MD): Agency for Healthcare Research and Quality (US); 2018. doi:10.23970/AHRQEPCCER209.

6. Messier SP, Mihalko SL, Legault C, et al. Effects of intensive diet and exercise on knee joint loads, inflammation, and clinical outcomes among overweight and obese adults with knee osteoarthritis: the IDEA randomized clinical trial. *JAMA* 2013;310(12):1263-1273. doi:10.1001/jama.2013.277669.

7. Allen K, Choong P, Davis A, et al. Osteoarthritis: Models for appropriate care across the disease continuum. *Best Pract Res Clin Rheumatol* 2016;(30):503-535.

8. American Academy of Orthopaedic Surgeons. MANAGEMENT OF OSTEOARTHRITIS OF THE HIP EVIDENCE-BASED CLINICAL PRACTICE GUIDELINE. 2017. 9. Vieira S, Dibai-Filho AV, Brandino HE, Ferreira VTK, Scheicher ME. Abdominal muscle strength is related to the quality of life among older adults with lumbar osteoarthritis. *J Bodyw Mov Ther* 2015;19(2):273-277. doi:10.1016/j.jbmt.2014.05.002.

10. Chen H, Onishi K. Effect of home exercise program performance in patients with osteoarthritis of the knee or the spine on the visual analog scale after discharge from physical therapy. *Int. J. Rehabil. Res.* 2012;35(3):275-277. doi:10.1097/MRR.0b013e328355a1bd.

11. Fors M, Enthoven P, Abbott A, Öberg B. Effects of pre-surgery physiotherapy on walking ability and lower extremity strength in patients with degenerative lumbar spine disorder: Secondary outcomes of the PREPARE randomised controlled trial. *BMC Musculoskelet. Disord.* 2019;20(1):468. doi:10.1186/s12891-019-2850-3.

12. Lindbäck Y, Tropp H, Enthoven P, Abbott A, Öberg B. PREPARE: presurgery physiotherapy for patients with degenerative lumbar spine disorder: a randomized controlled trial. *Spine J.* 2018;18(8):1347-1355. doi:10.1016/j.spinee.2017.12.009.

13. Kolasinski SL, Neogi T, Hochberg MC, et al. 2019 american college of rheumatology/arthritis foundation guideline for the management of osteoarthritis of the hand, hip, and knee. *Arthritis Rheumatol.* 2020;72(2):220-233. doi:10.1002/art.41142.

14. American Academy of Orthopaedic Surgeons. TREATMENT OF OSTEOARTHRITIS OF THE KNEE: EVIDENCE-BASED GUIDELINE, 2ND EDITION. 2013.