



The Role of Pharmacists in the Detection, Prevention and Care of Osteoarthritis

Pharmacists Are Essential

As a healthcare provider that sees patients up to 5 times more frequently than primary care physicians, pharmacists are perfectly poised to guide patients with arthritis or joint pain symptoms to various forms of treatment and management. They have the unique ability to identify and screen patients at risk for osteoarthritis (OA), as well as provide treatment recommendations that can include referrals to community-based programs proven to increase levels of physical activity, promote weight loss, and/or enhance self-management skills.

Arthritis and Its Impact

The Centers for Disease Control and Prevention (CDC) estimates that 1 in 4 US adults have some form of the 100+ types of arthritis. Osteoarthritis is the most common form of arthritis, affecting 30.8 million US adults and costing up to \$81 billion annually.¹

Osteoarthritis is a disorder within a joint that affects all joint tissues, including cartilage, synovium, extracellular matrix, and subchondral bone. Historically, OA was considered a non-inflammatory arthritis caused by “wear and tear” on the affected joint(s); however, at a molecular level, proinflammatory factors are now appreciable contributors to the process of joint degradation.²

Symptoms: *Pain is the primary symptom of OA. This pain is likely the result of a complex interplay of factors including mechanical, inflammatory, and centralized pain pathways.³ OA is frequently described in terms of its severity. In mild OA, patients have low levels of pain with well-preserved joint function and quality of life (QOL). In cases of moderate OA, patients have more persistent pain which begins to impair functionality, participation in activities, and QOL. In severe OA, patients have persistent pain which significantly impairs functionality, restricts participation in activities and significantly impairs QOL.*

Comorbidities: *Adding to treatment complexity, people with arthritis are more likely to have other chronic illnesses such as heart disease or diabetes. Furthermore, nearly half of those living with these chronic conditions also have arthritis. When these comorbidities are combined, they can lead to a vicious cycle.*

Nonpharmacological Treatment Options
Arthritis education *
Weight loss (if overweight)
Increase physical activity *
Information regarding community-based resources *
Exercise (non-weight bearing on the affected joint(s)) *
Assistive walking devices (e.g. cane) (if applicable)
Corrective footwear (if applicable)
Hot or cold therapy
Referral to physical therapy and/or occupational therapy

* denotes first-line treatments recommended by the American College of Rheumatology

Treatment: Although a cure for arthritis, including osteoarthritis, remains elusive, management should include pharmacologic and non-pharmacologic strategies.

For osteoarthritis, the American College of Rheumatology recommends non-pharmacological treatments – especially physical activity and weight management – as the first-line approach. Despite the availability of drug treatment options for OA, evidence supporting superior efficacy and/or sustained relief is lacking and untoward side effects can be a real detriment. When pain persists or function is impaired, however, analgesics and surgical options can be explored.

Connecting Patients to Community Programs

As noted (*) in the figure of Nonpharmacological Treatment Options on the previous page, a great deal of benefit can be gained from participation in self-management and physical activity programs based in community settings like recreation centers, senior centers, YMCAs, residential communities, etc. The CDC Arthritis Program recommends evidence-based programs that are proven to improve the quality of life of people with arthritis, or Arthritis-Appropriate Evidence-Based Interventions (AAEBIs). The following programs result in improvements in arthritis symptoms, such as pain or limitations in function, and are widely available in communities across the US.

Self-Management Education	Physical Activity Programs
Arthritis Self-Management Program (ASMP)	Active Living Everyday (ALED)
Chronic Disease Self-Management Program (CDSMP)	EnhanceFitness (EF)
Tomando Control de su Salud (Spanish CDSMP)	Fit & Strong!
Programa de Manejo Personal de la Artritis (Spanish ASMP)	Walk With Ease (WWE)

Knowledge of community-based arthritis programs can be a real asset to patients seeking pain relief and social support. In the blue box to the right, there are two websites that the pharmacist can use or suggest to patients looking for arthritis programs in the community.

In addition, the Osteoarthritis Action Alliance (OAAA) has developed a Pharmacist Toolkit to facilitate the detection, management, and prevention of OA. This toolkit recognizes that successful OA management requires a partnership among pharmacists and patients to facilitate multimodal care strategies and long-term success. With evidence-based education and actionable tools and resources, pharmacists and their patients can feel empowered to engage in proactive care for osteoarthritis.

The OAAA has released a continuing education course, **OA - the challenges are opportunities for the pharmacist.**

Learn more at the OAAA website: oaaction.unc.edu.

¹ Barbour KE, Helmick CG, Boring M, et al. Vital signs: prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation – United States, 2013-2015. *MMWR* 2017; 66(9): 246-253.

² Courties A, Sellam J, Berenbaum F. Metabolic syndrome-associated osteoarthritis. *Curr Opin Rheumatol* 2017; vol 29(2): 214-222.

³ Buys LM, Wiedefeld SA. Osteoarthritis. In: DiPiro JT, Talbert RL, Yee GC, et al. eds. *Pharmacotherapy: A Pathophysiologic Approach*, 10e New York, NY: McGraw-Hill. <http://accesspharmacy.mhmedical.com/content.aspx?bookid=1861§ionid=133893029>. Accessed July 30, 2018.

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Pharmacists are well-positioned to refer patients with osteoarthritis to arthritis-appropriate evidence-based programs within the community.”

*Tina H. Thornhill, PharmD,
FASCP, BCGP*

Find A Program Near You

- [Arthritis Foundation Resource Finder](#)
- [Evidence-Based Leadership Council Program Locator](#)
- [Walk With A Doc](#)



Checklist for Pharmacotherapy Consideration	✓
Patient has tried non-Rx (e.g. weight loss, increased activity, thermal modalities), but pain persists	
Arthritis education has been provided	
Current medications and supplements have been reviewed	
Medication allergies have been discussed	
Medical history has been discussed	
Acetaminophen (mild-moderate pain) – Maintain < 4 grams per 24 hours from all sources	
<i>Failed adequate trial of scheduled acetaminophen</i>	
NSAIDs (OTC) – Assess patient for appropriate use and risk factors (GI, renal, CV, asthma)	
<i>Failed adequate trial of scheduled NSAIDs</i>	
Recommend referral to PCP for further evaluation	

Learn more about the symptoms of osteoarthritis at StandUp2OA.org

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Patient Information / Assessment

Name / Date of Birth:			
Height:	Weight:	BMI (Body Mass Index): BMI = $\frac{\text{(weight in kilograms)}}{\text{height in meters}^2}$	
Joints affected:			
<input type="checkbox"/> Hand <input type="checkbox"/> Foot	<input type="checkbox"/> R <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> L	<input type="checkbox"/> Knee <input type="checkbox"/> Shoulder	<input type="checkbox"/> R <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> L
		<input type="checkbox"/> Hip <input type="checkbox"/> Neck	<input type="checkbox"/> R <input type="checkbox"/> L
		<input type="checkbox"/> Back C/T/L	
Degree of Functional Impairment:		Level of Physical Impairment:	
<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe		<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	
Patient's Motivation:			
<input type="checkbox"/> 1 (none) <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 (highest)			
Patient's SMART Goals:			
Specific, Measurable, Attainable, Relevant, Time-bound			

Osteoarthritis Screening Questions

Yes

No

Have you ever been told by a doctor that you have inflammatory arthritis?

Did your joint pain start suddenly or abruptly?

Does your pain or stiffness last longer than 30 minutes after rising from a sitting position?

Do you have any of the following:

Recent history of trauma (fall, car wreck, sports injury)

History of osteoporosis (fragile bones)

Fever

Rash

Muscle weakness

Burning, stinging, tingling, numbness around the painful joint(s)

Red, swollen joint(s)

Do you have more than 2 or 3 painful joints?

Do you have any of the following health conditions:

History of inflammatory arthritis (such as rheumatoid or gout)

Fibromyalgia

Have you been experiencing excessive fatigue with your joint pain?

If you answered “yes” to any of these questions, your symptoms could be something other than osteoarthritis. It is recommended that you talk to a physician about these symptoms.

Learn more about the symptoms of osteoarthritis at StandUp20A.org



OSTEOARTHRITIS
ACTION ALLIANCE

Tips to set goals and overcome barriers to become and stay physically active.	Active Living Every Day	Visit the site
Find water aerobics classes in your area for a low-impact workout with less pain.	Arthritis Foundation Aquatics Program	Visit the site
Tips to start or maintain an exercise program for those with osteoarthritis.	Arthritis Foundation Exercise Program	Visit the site
Get motivation and tips to help you lose weight for less joint pain.	Weight Management	Download the PDF
Take steps now to prevent pain in the future.	Osteoarthritis Prevention	Visit the site
Get moving to prevent pain.	Tips to Increase Physical Activity	Visit the site
Walking program that steps you to less joint pain.	Walk with Ease	Visit the site

SIMPLE Targets of OA Therapy

Helping your patient with their osteoarthritis symptoms is **SIMPLE**. Remember these steps to prevent and treat osteoarthritis.

- › Symptom management (e.g. reduce pain and stiffness)
- › Increase **Mobility**
- › Prevent disability
- › Maintain or improve quality of **LifE**



Resources for People with Arthritis

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

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