



# 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.<sup>1</sup>

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.<sup>2</sup>

**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.<sup>3</sup> 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
<a href="#">Arthritis Self-Management Program (ASMP)</a>	<a href="#">Active Living Everyday (ALED)</a>
<a href="#">Chronic Disease Self-Management Program (CDSMP)</a>	<a href="#">EnhanceFitness (EF)</a>
<a href="#">Tomando Control de su Salud (Spanish CDSMP)</a>	<a href="#">Fit &amp; Strong!</a>
<a href="#">Programa de Manejo Personal de la Artritis (Spanish ASMP)</a>	<a href="#">Walk With Ease (WWE)</a>

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](http://oaaction.unc.edu).

<sup>1</sup> 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.

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

<sup>3</sup> 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&sectionid=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](#)