

# Osteoarthritis: The Rheumatologist's Perspective

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## Introduction

Osteoarthritis (OA) is the most common form of arthritis and is a major cause of morbidity, limitation of physical activity, and health care utilization, especially in people aged 45 and above [1]. OA has been defined as "... a progressive disease of synovial joints that represents failed repair of joint damage. This ultimately results in the breakdown of cartilage and bone, leading to symptoms of pain, stiffness, and functional disability" [2]. The term "degenerative joint disease (DJD)" should not be used by health care practitioners to describe this entity; it is a misnomer and suggests to patients that nothing can be done for their condition. Thus, OA can be considered as a disease characterized by structural abnormalities at the joint level and an illness defined by a person's symptoms [2]. The symptoms that characterize knee OA include frequent pain, aching or discomfort, stiffness, fatigue, and sleep disturbance. These symptoms result in functional limitations leading to reduced participation in activities and decreased health-related quality of life.

## OA's Impact on Health and Quality of Life

Health care practitioners must recognize that OA is associated with increased mortality and reduced health-related quality of life [3–5]. Losina and colleagues [4] reported earlier this year that obesity and osteoarthritis combine to reduce quality-adjusted life years (QALYs) due to disability and mortality; this finding ranged from 1.86 QALYs lost in nonobese persons with knee OA to 3.5

QALYs lost in persons affected by both conditions. Losses were disproportionately higher in black and Hispanic women. Nuesch and colleagues [5] extended results of a prior systematic review and best evidence synthesis to show that persons with symptomatic hip or knee OA had 55% greater all-cause mortality compared with the general population and that a history of walking disability was associated with excess all-cause mortality and mortality due to cardiovascular disease, even after adjustment for age and sex.

As no curative therapies for OA exist at this time, health care providers must recognize that management of OA should be directed toward control of pain and other symptoms, reduction in functional limitation, and improvement in health-related quality of life [6, 7]. Patient complaints need to be taken seriously and not dismissed as an inevitable consequence of aging. As Professor Kraus said to Dr. Kusevitsky, "If there is one thing a patient expects from his physician, it is gravitas" [8]. Current recommendations suggest that patients receive a combination of non-pharmacologic and pharmacologic modalities, with consideration being given not only to the efficacy and safety/tolerability but also to the cost–benefit of treatments.

Table 1 lists non-pharmacologic and pharmacologic modalities recommended for the management of patients with symptomatic OA. A "pyramid" approach to management is advocated which begins with non-pharmacologic modalities and adds pharmacologic therapy as necessary; patients who fail to respond to medical management are referred for surgery as appropriate (Fig. 1). Despite the large number of available treatments, a large unmet need remains for safe, tolerable, efficacious medications, particularly for those patients who are intolerant of and/or have contraindications to non-steroidal anti-inflammatory drugs and opioid analgesics. Patients with symptoms that are not satisfactorily controlled by medical therapy are considered candidates for total joint replacement; indeed, symptomatic radiographic knee OA accounts for the vast majority of total knee replacement procedures performed annually in the USA [9].

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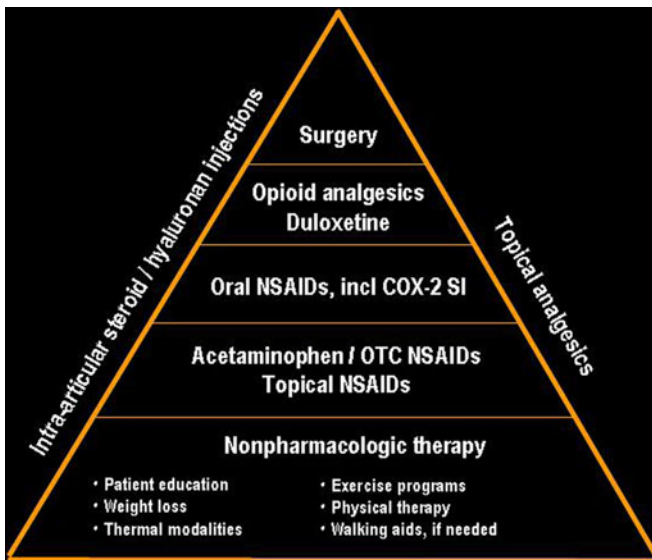
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**Table 1** A multidisciplinary approach

Nonpharmacologic	Pharmacologic
Self-management programs	Acetaminophen
Referral to PT	NSAIDs including COX-2-selective inhibitors
Regular exercise	Topical agents
Aerobic, aquatic, resistance	Capsaicin and NSAIDs
Weight loss, if overweight	Intra-articular therapies
Walking aids	Glucocorticoids
Thermal modalities	Hyaluronates
Patellar taping	Centrally acting agents
Bracing	Tramadol
Appropriate footwear	Duloxetine
Tai Chi	Opioid analgesics
TENS/TESA	
Traditional Chinese acupuncture	

### Indications for Joint Replacement Surgery

Recent data from an international study conducted under the auspices of a task force of the Osteoarthritis Research Society International (OARSI) and Outcome Measures in Rheumatology (OMERACT) suggest that the decision of the orthopedic surgeon to perform total joint arthroplasty in the patient with hip or knee OA cannot be satisfactorily predicted on the basis

**Fig. 1.** An overview of osteoarthritis management

of the severity of the patient's pain and/or physical limitation [10]. Additional analyses of data collected in this study, however, suggest that patients who were recommended for total joint arthroplasty can be categorized on the basis of their self-reported quality of life and the severity of the joint space narrowing on an X-ray of the symptomatic joint [11]. Further evaluation of this approach in additional patient cohorts is necessary before it can be recommended for use in either clinical practice or clinical trials.

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