

# Increasing physical activity

among adults  
with arthritis



**Recently released strategies to boost activity levels in people with arthritis focus on creating supportive environments**

*by Mary B. Waterman, MPH, and  
Patience H. White, MD, MA*

Arthritis is a serious disease that can be disabling, but a diagnosis of arthritis does not mean that an active life is out of reach. Physical activity is a safe and effective tool for managing the disease. However, few adults with arthritis engage in physical activity. Becoming and staying active is extremely important for

these individuals, making the role of the active-aging professional key in helping individuals with arthritis live well.

This article will explain what arthritis is (and is not), its burden, and how physical activity plays an important role in its treatment. In addition, it will describe recent efforts to help professionals make physical activity an easier choice for adults with arthritis. Also highlighted are strategies and action steps from the Arthritis Foundation's new report, "Environmental and Policy Strategies to Increase Physical Activity Among Adults

*Continued on page 46*



# Increasing physical activity among adults with arthritis

Continued from page 44

*Physical activity is an important nonpharmacological tool for treating arthritis. Making these opportunities easier for adults with the disease is an essential approach for helping to improve the lives of millions and to support their living well over the life span*

with Arthritis.” This report targets professionals who can influence the physical activity levels of adults with arthritis by implementing practical and doable environmental and policy changes.

## **The burden of arthritis**

Few people understand—or believe—that arthritis is not an inevitable part of life. Some of the biggest myths about arthritis are that it’s a normal part of aging and that it only affects older adults. While it is true that the prevalence of arthritis increases with age and that roughly half of all adults over the age of 65 are diagnosed with the disease, a majority of people diagnosed with arthritis are younger.<sup>1</sup> Arthritis is not inevitable and it is not a normal part of the aging process. It affects people of all ages—including children and young adults—and all races and ethnicities.

Arthritis, which means “joint inflammation,” is a chronic condition that affects several hundred million people

worldwide.<sup>2</sup> The term *arthritis* is an umbrella for over 100 different conditions, the most prevalent being osteoarthritis, rheumatoid arthritis, fibromyalgia and gout. Warning signs include pain, stiffness and swelling in or around a joint.

In the United States, approximately 50 million adults have been diagnosed with arthritis,<sup>1</sup> and the disease is projected to affect a staggering 67 million adults by the year 2030.<sup>3</sup> It is presently the most common cause of disability among Americans.<sup>4</sup>

Because of the pain and physical limitations associated with arthritis, it is not surprising that quality of life is worse for people with this condition than those without it. Arthritis robs 21 million Americans of their ability to do daily activities such as stooping, bending, kneeling, walking, and climbing a flight of stairs.<sup>1</sup> Almost one-third of people with arthritis have work limitations.<sup>5</sup> The impact is worse for African-Americans and Hispanics, who report worse pain and more frequent work and activity limitations than non-Hispanic whites.<sup>6</sup> Overall, arthritis costs the US economy \$128 billion in direct and indirect expenses.<sup>7</sup>

Even more surprising is that almost half of adults with arthritis have one or more other chronic conditions such as heart disease, diabetes and obesity.<sup>8</sup> This means that managing arthritis is key for people with other chronic conditions because arthritis often interferes with their ability to adhere to treatment plans that include physical activity. In other words, managing arthritis through physical activity can also support the treatment of and improve many of the coexisting diseases found in adults with arthritis.

## **Physical activity and arthritis**

Today, as many active-aging professionals know, people with arthritis should no longer be told to “rest their joints” or to refrain from physical activities that

## **The OAAA mission**

The Osteoarthritis Action Alliance will prevent and control osteoarthritis by promoting effective programs, policies and communication strategies.

**Source:** [www.oaaction.org](http://www.oaaction.org)

they find enjoyable. Physical activity is one of the best nonpharmaceutical treatment options for people with arthritis and should be included in their treatment plans. Not only is physical activity safe for people with arthritis, its health benefits are numerous: reduced pain, delayed or prevented disability, and better physical functioning, mood and independence.

Despite the benefits of physical activity, studies have shown that physical activity levels are lower among adults with arthritis than those without. In fact, nearly half of people with arthritis do not engage in any leisure time physical activity at all.<sup>9</sup> Even more troubling is that when measured with accelerometers (devices that measure motion), physical activity levels among adults with osteoarthritis are even lower than previously thought.<sup>10</sup>

To address the growing need to increase physical activity levels in individuals with the arthritis, a number of programs and initiatives are available to assist active-aging professionals. There are a variety of evidence-based physical activity programs specifically for people with arthritis to help them become physically active. These include land- and water-based physical activity programs, as well as health communication campaigns from the US Centers for Disease Control and Prevention in English (“Physical Activity: The Arthritis Pain Reliever”)

Continued on page 50

# Increasing physical activity among adults with arthritis

Continued from page 46



Created by the Arthritis Foundation and Ad Council, health communications campaigns send the message that physical activity benefits adults with arthritis. A sampling of posters appears on this page and the one facing. Images courtesy of the Arthritis Foundation

and Spanish (“Buenos Días, Artritis”). In addition, the Arthritis Foundation and Ad Council teamed together on two campaigns to encourage adults with arthritis to fight their arthritis pain (“Moving is the Best Medicine” and “My Weapon in the Fight Against Arthritis”). Campaign posters appear on this page and page 51.

## A call to action

In 2010, the Arthritis Foundation and the Centers for Disease Control and Prevention (CDC) joined together to launch “A National Public Health Agenda for Osteoarthritis.” This blueprint for action recommended reducing the

burden of osteoarthritis (OA) using four intervention areas:

- self-management education
- physical activity
- injury prevention
- weight management

The two partners further collaborated to mobilize a national coalition to elevate OA as a public health priority for the United States. The first coalition of its kind focusing specifically on OA, the Osteoarthritis Action Alliance (OAAA) was established in 2011. Since its launch, the OAAA has grown to include over 40 member organizations—including the International Council on Active Aging®—representing stakeholders in the fields of arthritis, aging, chronic disease prevention, and public health.

The alliance is composed of four workgroups, each dedicated to one of the four intervention areas outlined in the OA Agenda. The Physical Activity Workgroup is focusing on expanding the availability of physical activity as a public health intervention, using the following as guiding principles from the agenda:

- Expand the format options for the delivery of physical activity programs—such as group classes, home-based and self-directed programs, and workplace programs.
- Implement the “Physical Activity Guidelines for Americans.”
- Build supportive environments to increase physical activity.
- Continue examining the role of physical activity as a management strategy.

## Environmental and policy strategies

From a public health perspective, one of the biggest efforts to dramatically reduce the impact of arthritis by increasing physical activity among adults with the disease came earlier this year, when the Arthritis Foundation responded to



the OA Agenda's call to action to create supportive environments for physical activity. Because physical, social and economic environments affect how people with arthritis live, the Foundation released a new report titled "Environmental and Policy Strategies for Increasing Physical Activity Among Adults With Arthritis." This report focuses on ways to make physical activity more convenient and accessible to adults with arthritis by creating environments that make it easy for them to get active. In other words, it is trying to make the healthy choice, the easy—or the default—choice. For example, if someone with arthritis wants to walk to the grocery store but the pedestrian crossing signal doesn't allow enough time to make it across the street, that person is not very likely to do this activity.

The Environmental and Policy Strategies report was the result of expert consensus from a variety of sectors, including the physical activity, arthritis, and healthcare sectors. A literature review focused on the facilitators and barriers to physical activity for people with arthritis, as well as policies that were relevant, such as the Americans with Disabilities Act and universal design. Draft strategies were developed and prioritized as follows: "most practical and doable, likely to have the greatest impact on adults with arthritis, able to be initiated within 1–2 years, and sustainable over time." The experts then ranked the strategies.

The resulting report targets professionals in six sectors that have the potential to reach adults with arthritis, such as the active-acting professional, who play crucial roles in encouraging, influencing, and maintaining physical activity among individuals with the disease. These sectors were adapted from the ones outlined in the US National Physical Activity Plan, a multisectoral initiative launched in May 2010. In the Arthritis Foundation report, the sectors are as follows:

- business and industry
- healthcare
- mass media
- parks, recreation, fitness and sports
- community and public health
- transportation, land use and community design

Figure 1 on page 52 represents the top priority environmental and policy strategies in each of these sectors. Other important strategies considered are also included in the report, as are explanations and examples of potential action steps that professionals can take to implement each priority strategy. A number of potential action steps are relevant to more than one strategy and more than one sector. Examples include offering arthritis-appropriate evidence-based physical activity interventions; conducting walkability audits to ensure that a path or walkway is appropriate and safe for a person with arthritis; and providing adequate training for fitness professionals who might work with adults with arthritis, including those providing services through workplace wellness initiatives.

In addition to these cross-cutting action steps, active-aging professionals are invited to consider some of the other steps mentioned in the report:

- Investigate current or initiate new joint use agreements. These are agreements between two entities for shared use of properties or facilities (e.g., schools and malls) that can be used to host physical activities like walking groups.
- Create a database or a listing of physical activity resources, programs or opportunities that adults with arthritis in your community can participate in. Share the database or listing broadly with your clients and patients.
- Increase awareness about the role physical activity plays for adults with arthritis when working with clients, patients and partners.



- Encourage healthcare professionals in your community to ask their patients with arthritis about their level of physical activity and recommend arthritis-appropriate physical activities to those patients.
- Work with transportation planners to utilize complete street policies to

*Continued on page 52*

# Increasing physical activity among adults with arthritis

Continued from page 51

Priority environmental and policy strategies for improving physical activity among adults with arthritis	
<b>Community and public health</b>	Public health, aging services networks, faith-based organizations, and other community agencies should invest resources in the dissemination and delivery of evidence-based physical activity programs for adults with arthritis in convenient settings.
<b>Healthcare</b>	Healthcare systems should require licensed healthcare professionals to ask arthritis patients about physical activity levels at every visit, screen for arthritis-specific barriers to physical activity, encourage physical activity, and recommend evidence-based community interventions or rehabilitation therapies when appropriate.
<b>Transportation, land use, and community design</b>	Policies should be put in place and reinforced to create or expand efforts to promote active living environments that can support adults with arthritis being physically active.
<b>Business and industry</b>	Comprehensive worksite wellness programs should be inclusive and explicitly incorporate the needs of adults with arthritis in their programs without requiring disclosure of arthritis diagnosis.
<b>Parks, recreation, fitness, and sport</b>	Parks, recreation, fitness, and sport professionals should receive training on how to adapt and modify physical activity programs and exercises for adults with arthritis and assist them in initiating and sustaining appropriate physical activity.
<b>Mass media and communication</b>	Available evidence-based physical activity interventions for adults with arthritis should be promoted through information, guidelines, signage, media promotion, and public outreach.

Figure 1. Priority environmental and policy strategies for improving physical activity among adults with arthritis.

Source: Arthritis Foundation

- build road networks that include safe walking environments to places such as workplaces and other community venues; ensure that sidewalks and benches are available where appropriate.
- Encourage the incorporation of active living principles into planning and zoning efforts and ensure that experts in the fields of arthritis, aging, and physical activity are consulted.
- Identify local businesses with workplace wellness initiatives. These initiatives should include physical activity programs that are appropriate for people with arthritis, but aren't branded as an "arthritis" program so that participants aren't disclosing a diagnosis.

- Ask fitness facilities (gyms, parks departments, etc.) in your community to provide low-impact activities and equipment.

While certain steps may apply more to specific settings and roles than others, every one is relevant to the active-aging industry (including the broader coalitions that promote this approach). All are doable. Some action steps will require a longer-term commitment, while others can be accomplished in a relatively short period of time. With all these efforts, creating environments that encourage adults with arthritis to include physical activity in their lives will have a lasting effect.

To supplement the Arthritis Foundation report, sector-specific action briefs were created to give quick facts about arthritis and physical activity, and why they matter.

These summary sheets outline some of the topline strategies that a sector can implement immediately and over the long term. They also contain resources, including a table of all CDC-approved evidence-based programs, as well as websites for additional information, links to CDC articles about coexisting conditions, and more. A number of useful resources appear in the sidebar on page 53 as well, to guide professionals who want to get involved.

## Next steps

Carrying out the strategies outlined in the Environmental and Policy Strategies report will present both successes and challenges. One of the first actions taken to implement a strategy from the business and industry sector was to incorporate the Arthritis Foundation Walk With Ease Program (WWE) into a workplace wellness initiative. To assist with additional implementation efforts, a resource guide is currently being developed that will help with the “how to” of reaching out and connecting with the six sectors outlined in the report. Expected to be completed in summer 2013, this guide will focus on how to effectively support and promote the strategies outlined in the report. It will be based on a scan of current environmental activities, as well as information garnered from interviews with leaders and experts in each targeted sector.

Additional implementation activities will primarily be led and directed by experts in the OAAA Physical Activity Workgroup. Plans include piloting WWE with local parks departments and assessing walkability audits for their effectiveness for adults with arthritis. Further, the Arthritis Foundation, through the OAAA, is seeking more partners and stakeholders to collaborate and implement specific strategies, and to champion the report’s recommendations. Interested parties can contact the OAAA and find out how to participate by visiting the OAAA website (see “Resources” on this page).

## A key component

Today, arthritis affects a staggering number of people around the globe, including 50 million adults who live in the United States. Almost half of these Americans are limited in some way because of their arthritis. Managing arthritis helps people to cope with its physical effects and reduce its impact on their independence, quality of life and economic well-being. It is also a key

component of managing other chronic diseases—an increasing factor as people advance in years.

Physical activity is an important non-pharmacological tool for treating arthritis. Making these opportunities easier for adults with the disease is an essential approach for helping to improve the lives of millions and to support their living well over the life span. ☺

*Mary B. Waterman, MPH, is the director, public health, at the Arthritis Foundation, National Office, in Washington, DC, where she works with the Osteoarthritis Action Alliance physical activity workgroup, leads the policy and environmental strategies initiative, and assists with the implementation of the foundation’s strategic plan on arthritis-related health disparities. Prior to joining the Arthritis Foundation in 2002, Waterman worked for Westat in Rockville, Maryland, as a study manager for two national cancer-screening trials for the National Cancer Institute. She received a bachelor’s degree from Indiana University and a master of public health degree from the Rollins School of Public Health at Emory University.*

*Patience White, MD, MA, is vice president for public health at the Arthritis Foundation and professor of medicine and pediatrics at the George Washington University School of Medicine and Health Sciences (GWUSMHS). At the Arthritis Foundation, White is leading the public health initiatives to improve physical activity and lessen health disparities among people with arthritis. Before joining the foundation in 2005, she served as the director of the Division of Adult and Pediatric Rheumatology and Associate Dean for Faculty Affairs at GWUSMHS, and was a Robert Wood Johnson Health Policy Fellow on the Senate Finance Committee in Washington, DC. White has been caring for adults and children with rheumatic diseases for over 30 years.*

*Continued on page 54*

## Resources

### Internet

#### Arthritis Foundation

[www.arthritis.org](http://www.arthritis.org)

#### Arthritis Foundation: Physical Activity Report

(including a list of cosponsors, white paper and action briefs)

[www.arthritis.org/public-health-physical-activity-report.php](http://www.arthritis.org/public-health-physical-activity-report.php)

#### Fight Arthritis Pain

[www.fightarthritispain.org](http://www.fightarthritispain.org)

#### Osteoarthritis Action Alliance

[www.oaaction.org](http://www.oaaction.org)

#### US Centers for Disease Control and Prevention: Arthritis Program

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

#### US Centers for Disease Control and Prevention: Communication Campaigns

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

### Print

#### Environmental and Policy Strategies to Increase Physical Activity Among Adults with Arthritis

[www.arthritis.org/media/resources/OA\\_Physical\\_Activity\\_Rpt\\_508\\_v1\\_TAG508.pdf](http://www.arthritis.org/media/resources/OA_Physical_Activity_Rpt_508_v1_TAG508.pdf)

#### A National Public Health Agenda for Osteoarthritis

[www.arthritis.org/media/Ad%20Council%20101/OA\\_AGENDA\\_2011REV.PDF](http://www.arthritis.org/media/Ad%20Council%20101/OA_AGENDA_2011REV.PDF)

# Increasing physical activity among adults with arthritis

Continued from page 53

## Acknowledgements

Thank you to our colleagues at the Centers for Disease Control and Prevention, Arthritis Program, for their significant contribution to the “Environmental and Policy Strategies to Increase Physical Activity Among Adults With Arthritis” report: Teresa Brady, PhD; Casey Hannan, MPH; Jennifer Hootman, PhD; Erica Odom, MPH; and Angela Oliver, JD.

We also thank public health consultant Susan Baker, MPH, for her contributions.

## References

1. Cheng, Y. J., Hootman, J. M., Murphy, L. B., et al. (2010). Prevalence of doctor-diagnosed arthritis and arthritis-attributable activity limitation—United States, 2007–2009. *Morbidity and Mortality Weekly Report*, 59(39), 1261–1265.
2. Woolf, A. D., & Pfleger, B. (2003). Burden of major musculoskeletal conditions. *Bulletin of the World Health Organization*, 81(9), 646–656. Retrieved on October 19, 2012, from <http://www.who.int/bulletin/volumes/81/9/Woolf.pdf>.
3. Hootman, J. M., & Helmick, C. G. (2006). Projections of US prevalence of arthritis and associated activity limitations. *Arthritis and Rheumatism*, 54(1), 226–229.
4. Brault, M. W., Hootman, J. M., Helmick, C. G., et al. (2009). Prevalence and most common causes of disability among adults—United States, 2005. *Morbidity and Mortality Weekly Report*, 58(16), 421–426.
5. Bolen, J., Schieb, L., Hootman, J. M., et al. (2010). Differences in the prevalence and severity of arthritis among racial/ethnic groups in the United States, National Health Interview Survey, 2002, 2003, and 2006. *Preventing Chronic Disease*, 7(3), A64.
6. Murphy, L. B., Hootman, J. M., Langmaid, G. A., et al. (2011). Prevalence of doctor-diagnosed arthritis and arthritis-attributable effects among Hispanic adults, by Hispanic subgroup—United States, 2002, 2003, 2006, and 2009. *Morbidity and Mortality Weekly Report*, 60(6), 167–171.
7. Yelin, E., Murphy, L., Cisternas, M. G., et al. (2007). Medical care expenditures and earnings losses among persons with arthritis and other rheumatic conditions in 2003, and comparisons with 1997. *Arthritis and Rheumatism*, 56(5), 1397–1407.
8. Murphy, L., Bolen, J., Helmick, C. G., & Brady, T. J. (2009). Comorbidities are very common among people with arthritis. Poster 43. 20<sup>th</sup> National Conference on Chronic Disease Prevention and Control, Centers for Disease Control and Prevention, February 2009.
9. Shih, M., Hootman, J. M., Kruger, J., & Helmick, C. G. (2006). Physical activity in men and women with arthritis, National Health Interview Survey, 2002. *American Journal of Preventive Medicine*, 30(5), 385–393.
10. Dunlop, D. D., Song, J., Semanik, P. A., et al. (2011). Objective physical activity measurement in the osteoarthritis initiative: Are guidelines being met? *Arthritis and Rheumatism*, 63(11), 3372–3382.

## Capitol Hill briefing

On May 16, 2012, the Arthritis Foundation sponsored a Capitol Hill briefing in Washington, DC—in cooperation with the Congressional Arthritis Caucus—to release its new report, “Environmental and Policy Strategies to Increase Physical Activity Among Adults with Arthritis.” Twenty-five partners from the Osteoarthritis Action Alliance (OAAA) signed on as cosponsors of the event, which was held to highlight the report’s background, recommendations and strategies. (To learn more about the OAAA, see “A call to action” on page 50.)

Among the Foundation’s outreach prior to the briefing were targeted stakeholder invites to all OAAA partners and other national stakeholders in the United States, targeted media, and each congressional office in both

the US House of Representatives and the US Senate. These efforts produced results. The event was well-attended by sponsor organizations, national stakeholders, OAAA partners, and Capitol Hill staff members. Representative Anna Eshoo (Democrat-California), cochair of the Congressional Arthritis Caucus, was also present.

The briefing not only outlined the new report and its relevance, but also discussed the arthritis burden, the benefits of physical activity for individuals with arthritis, and the current lack of activity among them. The day’s speakers included:

- John Klippel, MD, president and CEO, Arthritis Foundation
- Wayne Giles, MD, MS, director of the Division of Population Health,

National Center for Chronic Disease Promotion and Health Prevention, US Centers for Disease Control and Prevention (CDC)

- Mary Wu, patient advocate, Ossining, New York
- Zarnaaz Bashir, MPH, director of Strategic Health Initiatives, National Recreation and Park Association

Immediately after the briefing, the OAAA hosted a lunch-and-learn conference call featuring Drs. Klippel and Giles, allowing partners and other stakeholders who were unable to attend the event in person to learn about the new report. Copies were later distributed to local Arthritis Foundation regions, CDC Arthritis Program-funded states, and other partners.