ARTHRITIS
MEETING THE CHALLENGE

AT A GLANCE
2009

NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

IMPROVING HEALTH AND QUALITY OF LIFE FOR ALL PEOPLE

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Arthritis: The Nation's Most Common Cause of Disability

What Is Arthritis?

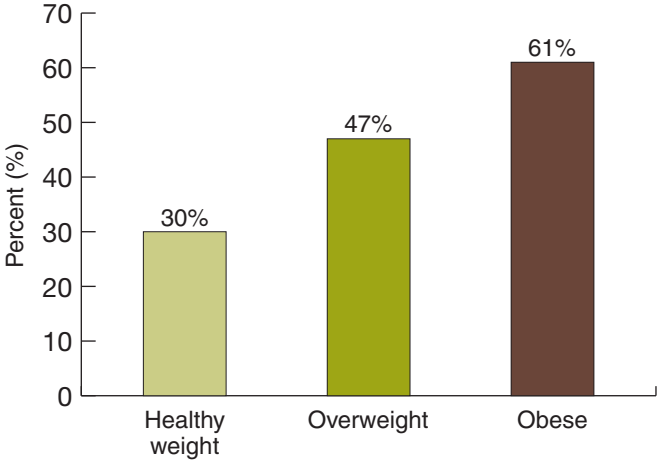
Arthritis comprises more than 100 different rheumatic diseases and conditions, the most common of which is osteoarthritis. Other frequently occurring forms of arthritis include rheumatoid arthritis, lupus, fibromyalgia, and gout. Common symptoms include pain, aching, stiffness, and swelling in or around the joints. Some forms of arthritis, such as rheumatoid arthritis and lupus, can affect multiple organs and cause widespread symptoms.

Although arthritis is more common among adults aged 65 years or older, people of all ages (including children) can be affected. Nearly two-thirds of people with arthritis are younger than age 65. Arthritis is more common among women (24.4%) than men (18.1%) in every age group, and it affects members of all racial and ethnic groups.

Why Is Arthritis a Public Health Problem?

High prevalence. An estimated 46 million U.S. adults (about 1 in 5) report doctor-diagnosed arthritis, according to annual estimates. As the U.S. population ages, these numbers are expected to increase sharply. The number of adults with doctor-diagnosed arthritis is projected to increase to 67 million by 2030, and more than one-third of these adults will have limited activity as a result. In addition, a recent study indicated that some form of arthritis affects 1 in every 250 children.

Risk of Developing Painful Knee Osteoarthritis Increases With Weight



Source: *Arthritis Care and Research* 2008;59:1207–13.

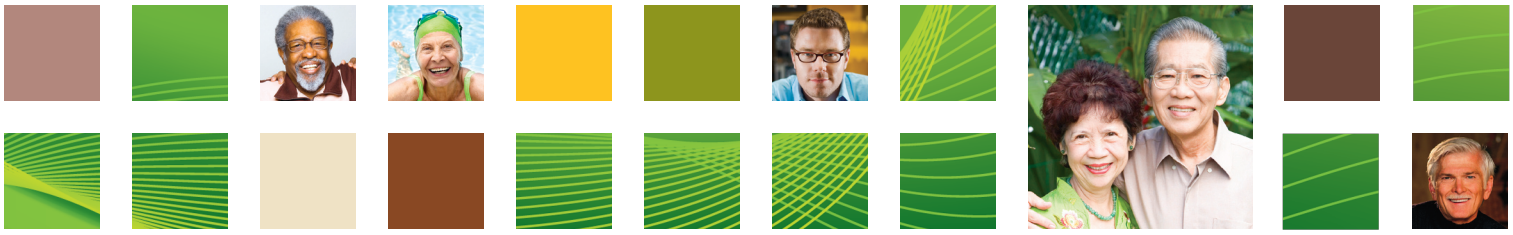
> *"Public health in the future will be increasingly about improving the quality of life, not merely its length. Arthritis, with the pain and limitation it inflicts on millions of our people, young and old, sits right in the center of that future."*
>
> **James S. Marks, MD, MPH**
> Senior Vice President and Director, Health Group
> Robert Wood Johnson Foundation

Common disability. Arthritis is the nation's most common cause of disability. Nearly 19 million U.S. adults report activity limitations because of arthritis each year. Among all U.S. adults of working age (18–64 years), about 1 in 20 report that they have arthritis that limits their work. Among the 23 million adults with arthritis in this age group, arthritis-attributable work limitations affect about 1 in 3 people.

High lifetime risk. A recent community study estimated that the lifetime risk of developing knee osteoarthritis serious enough to cause painful symptoms is 45%. Risk increases to 57% among people with a past knee injury. Lifetime risk for knee osteoarthritis also goes up with increased weight, and 3 in 5 people who are obese are at risk.

High costs. In 2003, the total cost of arthritis was $128 billion, including $81 billion in direct costs (medical) and $47 billion in indirect costs (lost earnings). This total is equal to 1.2% of the 2003 U.S. gross domestic product. Each year, arthritis results in 992,100 hospitalizations and 44 million outpatient visits.

Risky complications. Arthritis makes it more difficult for people to be physically active, and not being physically active is a risk factor for many chronic diseases. More than half of adults with diabetes or heart disease also have arthritis. Research shows that pain, fear of pain, fear of worsening symptoms or damaging joints, and lack of information on how to exercise safely prevent people with arthritis from being physically active. To effectively manage chronic conditions such as diabetes, heart disease, and obesity, people with arthritis need help finding ways to overcome arthritis-specific barriers to physical activity.



What Can Be Done to Address Arthritis?

Learn techniques to manage arthritis. Self-management education programs such as the Arthritis Foundation's Self-Help Program can teach people how to manage arthritis and lessen its effects. This 6-week course reduces arthritis pain by 20% and physician visits by 40% for participants. Unfortunately, this program is not available in all areas of the country. More widespread use of this program and similar courses, such as the Chronic Disease Self-Management Program, which addresses arthritis along with other chronic diseases, could save money and improve quality of life for people with arthritis.

Be physically active. For people with arthritis, physical activities such as walking, bicycling, and swimming have been shown to have significant benefits, including reducing pain and improving physical function, mental health, and quality of life.

The Arthritis Foundation Exercise Program, the Arthritis Foundation Aquatics Program, and EnhanceFitness are three examples of community exercise programs that have been shown to improve health among participants.

Control your weight. Weight control and injury prevention measures can lower a person's risk of developing osteoarthritis. Weight loss also can reduce symptoms for people with knee osteoarthritis.

Consult a physician. Early diagnosis and appropriate management are especially important for people with inflammatory arthritis. Recommendations from health care providers are the most influential factor in convincing people to take an arthritis self-management course.

CDC's Response

CDC is committed to leading strategic public health efforts to promote well-being, prevent chronic disease, and achieve health equity. With $13 million in Fiscal Year 2008 (FY 2008) funding, CDC is working with the Arthritis Foundation, the National Association of Chronic Disease Directors (NACDD), state arthritis program directors, and other partners to improve quality of life for adults with arthritis.

These efforts include the *National Arthritis Action Plan: A Public Health Strategy*, developed by CDC, the Arthritis Foundation, the Association of State and Territorial Health Officials, and 90 other organizations, to address the growing problem of arthritis. By implementing the goals of the action plan, CDC and its partners are moving toward achieving the first-ever arthritis-related national objectives outlined in *Healthy People 2010.*

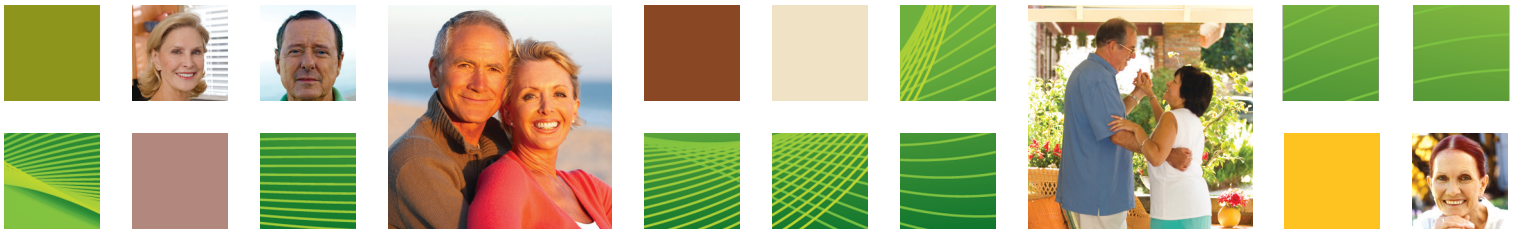
In addition, CDC is convening science, program, and policy leaders in partnership with the Arthritis Foundation to develop a national public health agenda for addressing osteoarthritis, the most common type of arthritis and a frequent cause of disability and expensive joint replacement. The agenda will develop strategies for addressing osteoarthritis as a major public health issue in the next 5 years. CDC also will identify model dissemination efforts that can be replicated in other states, as well as models for working with partners and other chronic disease programs at state, regional, and national levels.

What Activities Does CDC's Arthritis Program Support?

The primary goal of CDC's Arthritis Program is to improve quality of life for people affected by arthritis. The program achieves this goal by supporting the following five key activities:

1. Building state programs.
Over the past 5 years, state health departments have successfully used CDC funding to build capacity in their arthritis programs. These efforts include creating new partnerships, increasing public awareness, improving their ability to monitor the burden of arthritis, and delivering evidence-based interventions.

Recommendations from a 2007 expert panel are being used to guide current state program activities, build on the lessons learned by states, and guide efforts to expand program reach. These recommendations have led to a new approach of funding states at higher levels to increase the effectiveness of state programs and to reach more people with arthritis in funded states. Beginning in 2008, CDC gave 12 states (down from 36 in previous years) an average of $500,000 per year as part of a 4-year cooperative agreement (see map on Arthritis insert). This funding helps state arthritis programs increase the reach of CDC-recommended, evidence-based interventions. States also are encouraged to apply innovative policy, communication, and partnership strategies to reach their program goals.



CDC's Response (continued)

CDC also is working with NACDD to support efforts in nine states (Alaska, Illinois, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Mississippi, and New York) to integrate arthritis interventions into existing chronic disease programs. NACDD, with CDC support, recently gave each of these state health departments about $50,000 per year as part of a 3-year project.

2. Reaching the public.
CDC, working with state health departments and Arthritis Foundation chapters, has developed two health communications campaigns to promote physical activity. *Physical Activity, The Arthritis Pain Reliever* is an English-language campaign designed to promote physical activity among whites and African Americans aged 45–70 years with arthritis. This campaign is used by state health departments and others to raise awareness of physical activity as a way to manage arthritis pain and increase functioning and knowledge of appropriate activity. It is currently being revised. *Buenos Días, Artritis* is a similar physical activity campaign targeted at Spanish-speaking Hispanic adults.

3. Improving the science base.
CDC supports research to learn more about arthritis and effective management strategies. For example,

- CDC is evaluating existing physical activity programs and developing new ones for people with arthritis. Walking is one of the most feasible forms of physical activity for most people. CDC is supporting researchers at the University of North Carolina at Chapel Hill to evaluate group-based and self-directed walking programs among a culturally diverse sample of adults with arthritis.

- Self-management education programs have been proven to reduce pain and costs, yet not all people with arthritis are able to attend such programs. CDC supported researchers at the University of North Carolina at Chapel Hill and Stanford University to develop and evaluate programs that can be delivered by mail or online to help make these programs available to everyone who needs them.

- Systemic lupus erythematosus is a serious autoimmune inflammatory disease that affects multiple systems in the body. It can be difficult to diagnose, and prevalence estimates vary widely. CDC is supporting researchers at the University of Michigan and Emory University, through the Michigan and Georgia state health departments, to produce more reliable prevalence estimates of lupus for African Americans and whites. CDC plans to create additional registries to collect data for Hispanics and Latinos, Asians, and American Indians/Alaska Natives.

4. Measuring the burden of arthritis.
CDC uses surveys such as the Behavioral Risk Factor Surveillance System and Arthritis Conditions Health Effects Survey to define the burden of arthritis, monitor trends, and assess how arthritis affects quality of life. Research has shown that arthritis can be a barrier to physical activity among people with diabetes or heart disease. More research is needed to find effective ways to improve the health of people with multiple conditions.

5. Making policy and systems changes.
CDC's epidemiology and surveillance activities collect data useful to policy and decision makers. Examples include cost estimates and data on arthritis-attributable work limitations at state and national levels. CDC also collects and analyzes data on the occurrence of arthritis among people with diabetes and heart disease. Future CDC and state efforts will include attention to these risk factors as starting points for policy changes.

Future Directions

Working with its partners, CDC aims to expand arthritis programs and interventions nationwide to improve quality of life for people affected by arthritis and move state programs from building capacity to widespread implementation of effective programs through systems such as aging services agencies, cooperative extension programs, large health care systems, and large employers. CDC also is working to develop innovative interventions that meet the needs of diverse populations.

For more information or copies of the *National Arthritis Action Plan: A Public Health Strategy*, please contact
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