



## Public Health Approach to Arthritis

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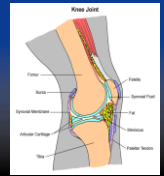
Arthritis Program  
Division of Adult and Community Health  
Centers for Disease Control and Prevention

*The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry.*

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## Osteoarthritis (OA)

- 27 million adults with OA
- 632,000 O-related joint replacements
- 11.1 million outpatient visits
- \$13.2 billion job-related OA costs



## OA Impact

- Lifetime risk is 1 in 2; 2 in 3 for obese
- Prevalence increases at age 45; early onset due to injury may bring that down
- Women more than men
- Baby boomers will increase prevalence significantly
- 25% have pain on ambulation and interferes with ADLs

## The OA Agenda

- Early 2008 CDC and the Arthritis Foundation collaborated to explore reducing the public health burden of OA over the next 3-5 years
- Steering group and 2 working groups
  - ◆ Interventions
  - ◆ Policies and communication strategies
- Vetted 2 White Papers at the OA Summit meeting in April 2009

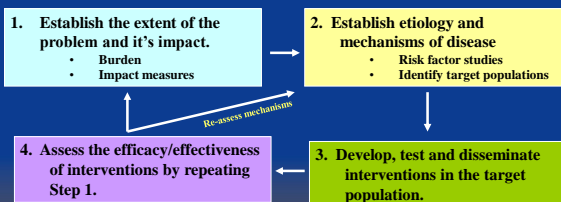
## A Public Health Intervention

An activity that prevents disease, injury or disability or promotes health in a group of persons and are distinct from individual and clinical interventions.

## Vision and Goals

1. To ensure the availability of evidence based interventions (SME, PA, etc.) to all Americans with OA,
2. To establish supportive policies, communications initiatives and strategic alliances for OA prevention and management.
3. To initiate needed research to better understand the burden of OA, its risk factors and effective strategies for prevention and intervention.

## Public Health Approach



## Ready for Public Health Action

- Self-management education
- Physical activity
- Injury prevention
- Weight management and healthy nutrition



## Criteria for PH Intervention

- Arthritis appropriate (e.g., participant control, low impact)
- Adequacy of the evidence base
  - ◆ Evaluated in present form
  - ◆ Publish article or report
  - ◆ Consistency of evidence
- Implementability as a PH intervention
  - ◆ "Lay leaders"
  - ◆ Inexpensive

## Self-management Education

- 6 week classes; 2 hour sessions
- Learn skills and strategies to manage chronic conditions
- Improve pain, disability, anxiety, depression and HRQOL
- Ready for wide scale implementation

## Self-management Education

- Arthritis Self-management Program
- Spanish ASMP
- Chronic Disease Self-management Program
- Spanish CDSMP
- Arthritis Toolkit

## Physical activity

- Low impact, aerobic and muscle strengthening exercise
- Reduces pain, improves function, mood and HRQOL; reduces risk of disability
- Packaged programs, lay instructor led
- Group or self directed

## Physical activity

- Arthritis Foundation Exercise Program
- Arthritis Foundation Aquatics Program
- Active Living Every Day
- Enhance Fitness
- Fit & Strong!
- Walk With Ease

## Injury Prevention

- No “packaged” interventions
- Injuries may result from multiple causes
- Sports injuries may be a good place to start
  - ◆ Neuromuscular training programs
  - ◆ Breakaway bases
- Australia has had success at implementing community-based injury prevention programs

## Weight Management

- Community-based programs are available but have not been evaluated among people with arthritis
- Bariatric surgery is effective but not a PH intervention
- Health communication message is any weight loss has benefit

## Example: Physical Activity

## 4 Strategies

1. Disseminate community-delivered, evidence-based (EB) packaged programs
2. Health Communication Campaigns
3. Policy and environmental strategies
4. Expand science base

## EB Packaged Programs

- Partners to disseminate EB programs
  - State health departments
  - National partners (e.g. YMCA)
- Embed programs in systems
  - Part of the organizational mission
  - Multiple delivery sites
  - Maximize sustainability
- Translation research to practice
  - A menu of programs for different needs

## CDC Approved EB Packaged Programs

Currently Approved:

- ◆ Arthritis Foundation Aquatics Program
- ◆ Arthritis Foundation Exercise Program (formerly PACE)
- ◆ Walk With Ease
- ◆ EnhanceFitness®
- ◆ Active Living Every Day
- ◆ Fit & Strong!

## Health Communications

1. CDC Health Communication Campaigns
  - *Physical Activity. The Arthritis Pain Reliever*
  - *Buenas Días Arthritis*
2. Arthritis Foundation
  - *Lets Move Together*
  - *Movement is the Best Medicine (Ad Council)*



## Health Communication Messages

- Any activity is better than none
- Strive for at least 150 min/wk, moderate, low impact
  - Break into bouts if necessary
  - Modify activity to symptoms – don't stop completely
- Expect some slight increase in symptoms initially, but long-term reduction if habitual
- Arthritis-specific classes are available in the community

## What to take for arthritis pain?



Take a walk. A bike ride. A swim. Studies show that 30 minutes of moderate physical activity three or more days a week can relieve pain and help you move more easily. 30-60 minutes of rest in one month, or 10-15 minutes a few times a day. To make it fun, bring a friend or family member to join you. Stick with it, and in just four to six weeks you could be beating back and feeling better.

**Physical Activity: The Arthritis Pain Reliever.**  
Call 1-800-285-7800 to learn more.

A message from The Centers for Disease Control and Prevention • The Arthritis Foundation • The Department of Health & Human Services



## BUENOS DÍAS, ARTRITIS.

HOY, NO NOS VENCERÁS.



Las estadísticas indican que 30 minutos diarios de actividad física puede disminuir el riesgo de sufrir problemas crónicos de dolor provocado por la artritis y aumentar la movilidad. El ejercicio es una actividad física que puede ser divertida y fácil de hacer. Y es un buen momento para la artritis. Si desea más información, llame al 1-800-285-7800.



## Policy and Environmental

- Healthy People 2010/2020
- 2008 PA Guidelines for Americans
- Public Health Agenda for Osteoarthritis
- OA Action Alliance <http://www.oaaction.org>
- IOM Panel – Multiple Chronic Conditions
- Affordable Care Act
  - Consolidated Chronic Disease Program
  - Community Transformation Grants
  - CPPW grantees



## Expand Science Base

- Evaluations of packaged exercise programs
- Qualitative studies of barriers/facilitators
  - ✦ Adults with arthritis
  - ✦ Health care professionals
- Meta-analyses
- Programmatic-relevant descriptive epidemiology

## Increase Menu of Programs

### 2 Programs 1999

- AF Exercise Program
- AF Aquatics

### 3 Under Evaluation

- AF Tai Chi
- First Step for Active Health
- Active Choices

### 6 Programs 2011

- AF Exercise Program
- AF Aquatics
- Active Living Every Day
- EnhanceFitness®
- Fit & Strong!
- Walk With Ease

## Focus Groups and Meta-Analyses

Journal of Applied Gerontology, Volume 34(2) 2009  
 © 2009 Sage Publications  
 10.1177/0731948708324466

### Perceived Exercise Barriers, Enablers, and Benefits Among Exercising and Nonexercising Adults With Arthritis: Results From a Qualitative Study

Cheryl A. Der Ananian, Sara Wilcox, Ken Watkins, Ruth P. Saunders, and Alexandra E. Evans

Journal of Aging and Health, 2009, 16, 105-114

### Factors Associated With Exercise Participation in Adults With Arthritis

Cheryl A. Der Ananian, Sara Wilcox, Ken Watkins, Ruth P. Saunders, and Alexandra E. Evans

### The Exercise Experience in Adults With Arthritis: A Qualitative Approach

Cheryl A. Der Ananian, PhD; Sara Wilcox, PhD; Jill Abbott, MPH, DrPH; Jillian Vrand, PhD; Corinne Ramsey, PhD; Patricia Shapiro, PhD; Terrell Brady, PhD

## Journal of Applied Gerontology

http://jag.sagepub.com

### Exercise and Health-Related Quality of Life in Older Community-Dwelling Adults: A Meta-Analysis of Randomized Controlled Trials

Charles A. Hooton, PhD; B. Scott Goldstein, PhD; Jonathan and Craig L. Horley, PhD; Journal of Applied Gerontology, 2009, 34(2), 105-114

DOI: 10.1177/0731948708324466

Journal of Applied Gerontology, 2009, 34, 105-114

### Effects of Community-Deliverable Exercise on Pain and Physical Function in Adults With Arthritis and Other Rheumatic Diseases: A Meta-Analysis

Charles A. Hooton, PhD; B. Scott Goldstein, PhD; Jonathan and Craig L. Horley, PhD

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## Program Relevant Science

- Prevalence of physical inactivity and meeting PA recommendations
- Physical activity impact on function, pain, HRQOL, sleep impairment, depression
- Translation of PA guidelines for PWA to rheumatology and orthopedic health professionals



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**CDC Arthritis Website:**

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

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