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2008 Physical Activity Guidelines for Americans: Development and Dissemination of New Federal Evidence-Informed Recommendations

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CAPT, US Public Health Service

U.S. Department of Health and Human Services



Overview

- Guidelines development process
- CDC Scientific Literature Database
- Describe the Physical Activity Guidelines
- Plans for outreach and dissemination



Physical Activity and Public Health 1995

A Recommendation From the Centers for Disease Control and Prevention and the American College of Sports Medicine

Russell R. Pate, PhD; Michael Pratt, MD, MPH; Steven N. Blair, PED; William L. Haskell, PhD; Caroline A. Macera, PhD; Claude Bouchard, PhD; David Buchner, MD, MPH; Walter Ettinger, MD; Gregory W. Heath, DHSc; Abby C. King, PhD; Andrea Kriska, PhD; Arthur S. Leon, MD; Bess H. Marcus, PhD; Jeremy Morris, MD; Ralph S. Paffenbarger, Jr, MD; Kevin Patrick, MD; Michael L. Pollock, PhD; James M. Rippe, MD; James Sallis, PhD; Leah H. Wilmore, PhD

1996 *NIH Consensus Statement*

Volume 13, Number 3
December 18-20, 1995



**Physical Activity and
Cardiovascular Health**

NATIONAL INSTITUTES OF HEALTH
Office of the Director

Physical Activity and Health

1996

A Report of the Surgeon General

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Chronic Disease Prevention and Health Promotion
The President's Council on Physical Fitness and Sports



Background

- 2000 and 2005 *Dietary Guidelines for Americans* included physical activity
 - Highlighted cardiorespiratory activity
 - Focused on energy balance
- Physical activity is one pillar of HHS Secretary's Prevention Priority announced in May 2006
 - Based on President's Healthier US Initiative
 - ◆ Be physically active each day
 - ◆ Eat a nutritious diet
 - ◆ Get preventive screening
 - ◆ Make healthy choices – avoid risky behaviors
- Federal Steering Committee
 - Penelope Slade-Sawyer (formerly Royall), Rick Troiano, Melissa Johnson, Bill Kohl, Janet Fulton

Objective

- Comprehensive, evidence-based physical activity guidelines
 - Cardiorespiratory
 - Strength
 - Balance
- Harmonize various recommendations
- Address subpopulations
 - Older adults, persons with disabilities

IOM Workshop – October 2006

- Adequacy of Evidence for Physical Activity Guidelines Development
- 6 plenary sessions plus discussants
 - Various health outcomes and risks
 - Addressed special populations
 - ◆ Children and youth
 - ◆ Pregnant and post-partum women
 - ◆ Older adults
 - ◆ Persons with disabilities
- Report pdf is on National Academies' site, www.nap.edu

Literature Review

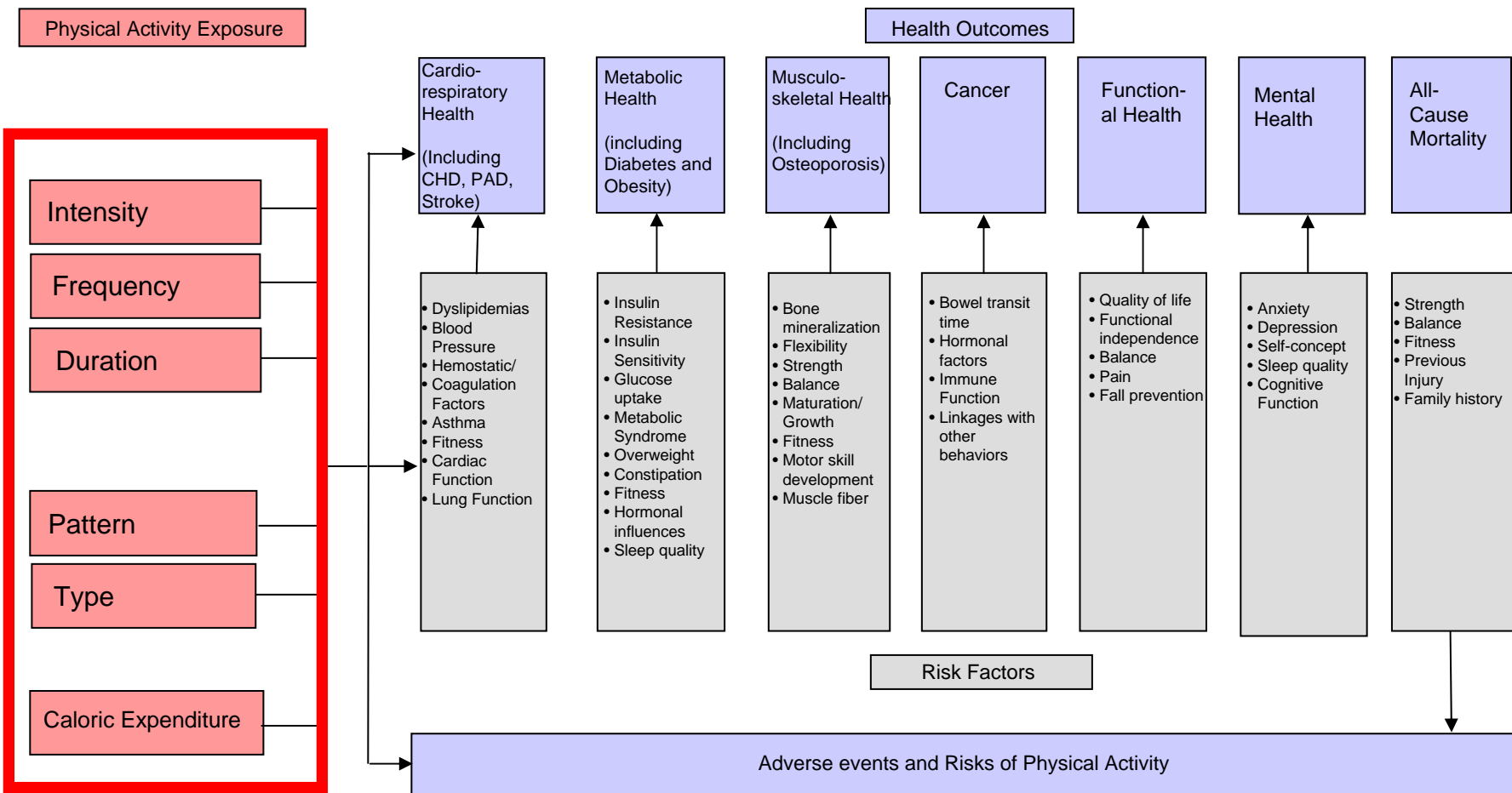
- Managed by CDC Physical Activity Branch
- Examined original research published since January 1995
- Stratified by age groups
 - Children and youth (6-18 years)
 - Adults (19-64 years)
 - Older adults (65 + years)
 - Mixed ages

Goals for Scientific Review

- Develop and implement systematic review of physical activity and health literature for maximal benefit to Federal Advisory Committee
- Provide initial literature database for first Federal Advisory Committee meeting
- Support Committee work throughout its term



Physical Activity Guidelines For Americans: Conceptual Framework for Scientific Literature Review



All arrows will be examined for heterogeneity across demographic characteristics (eg gender, age, race/ethnicity). Evidence will also be examined for select special population groups.

Physical Activity Guidelines

Proposed Initial Research Questions

What is the evidence that:

1. Physical activity is associated with [Outcome]?
2. The dose of physical activity that is associated with [Outcome] or precursors varies by:
 - Differing intensities?
 - Accumulation of multiple short periods of participation?
 - A specific pattern of weekly regularity?
 - Different modes (types) of physical activity?
3. Physical activity might increase the risk of a certain [Outcome]?
4. An exposure of physical activity other than 30 minutes/day on most, preferably all, days each week is associated with [Outcome]?

Evidence Table

cont.

Non-Intervention Studies: Secondary Format (03/06/2008)

Study Basics, Design, and Execution	Population / Setting, Exposure Measures	Results of Study Outcomes for the Physical Activity Exposure Measure, with Comments (used for covariates)			
Author (year)/ AbstractId/Medline ID: Moore,L.L.(1995) / 7148 / 7572980 Age/Study Group: Youth Study Purpose: To examine the effect of preschool physical activity on the change in body fatness from preschool to first grade using data from The Framingham Children's Study. Comments on Study: Who: {C} Where:{C} When: {C} Other: {C} Study Design: Prospective Cohort Study Sample Size (n, final %): Beginning: 106 Analytic: 97 [91.51%] Sample Type: Convenience/ Volunteer Sample	Setting: Country: United States / City or state: Framingham, Massachusetts Community-wide {C} Eligibility Criteria: 1. <u>Inclusion:</u> 1) families had to live within approx 40 miles of Framingham, Mass 2) healthy 3 to 5 yr old child with no physical or mental disability that would interfere with diet or activity 3) 2 biological parents living in the home 2. <u>Exclusion:</u> Study Sample Characteristics By: 1. <u>ALL</u> a. Age: 4.00 yrs or Age/Other format: N/R b. Female %: 40.20 % c. Ethnicity: Hispanic or Latino (0%), Non-Hispanic (0%), Other / Unknown (0%) d. Race: AI/AN (0%), Asian (0%), White (100.00%), Black or AA (0%)Other / Unknown (0%), Not reported (0%) e. SES: Not Reported f. Special population: No g. Comment on demographics: {C} h. Comment on sample setting: N/R Physical Activity Exposure:	Major Study Results by: Strata, Outcome, Physical Activity Exposure Contrasts: Strata - Overall: 1. Phase 1 - Morbidity: Metabolic-Adiposity: Adiposity (site specific, other): Increasing TRICEPS skinfold slope a. ALL: Activity Level 1) Active {C} 1.0000 (0.0000, 0.0000) N/R 2) Inactive {C} 3.8000 (1.4000,10.6000) N/R 2. Phase 1 - Morbidity: Metabolic-Adiposity: Adiposity (site specific, other): Increasing SUBSCAPULAR skinfold slope a. ALL: Activity Level 1) Active {C} 0.0000 (0.0000, 0.0000) N/R 2) Inactive {C} 0.0000 (0.0000, 0.0000) N/R 3. Phase 1 - Morbidity: Metabolic-Adiposity: BMI: Increasing BMI slope a. ALL: Activity Level 1) Active {C} 0.0000 (0.0000, 0.0000) N/R 2) Inactive {C} 0.0000 (0.0000, 0.0000) N/R Strata - Male: 1. Phase 1 - Morbidity: Metabolic-Adiposity: Adiposity (site specific, other): Increasing TRICEPS skinfold slope a. ALL: Activity Level 1) Active {C} 1.0000 (0.0000, 0.0000) N/R 2) Inactive {C} 2.7000 (0.8200,8.9000) N/R 2. Phase 1 - Morbidity: Metabolic-Adiposity: Adiposity (site specific, other): Increasing SUBSCAPULAR skinfold slope a. ALL: Activity Level 1) Active {C} 1.0000 (0.0000, 0.0000) N/R	a.Type: Cardiorespiratory b.Measure: Categorical c.Assessment: Diary/Log, Accelerometer[Physical activity was assessed twice yearly for 5 days with an electronic motion sensor] / Name: N/R d.Exposure categories: 1.Active : {C} 2.Inactive: {C}	3. Phase 1 - Morbidity: Metabolic-Adiposity: BMI: Increasing BMI slope a. ALL: Activity Level 1) Active {C} 1.0000 (0.0000, 0.0000) N/R 2) Inactive {C} 1.3000 (0.4200,4.2000) N/R Strata - Female: 1. Phase 1 - Morbidity: Metabolic-Adiposity: Adiposity (site specific, other): Increasing TRICEPS skinfold slope a. ALL: Activity Level 1) Active {C} 1.0000 (0.0000, 0.0000) N/R 2) Inactive {C} 2.5000 (0.5400,12.5000) N/R 2. Phase 1 - Morbidity: Metabolic-Adiposity: Adiposity (site specific, other): Increasing SUBSCAPULAR skinfold slope a. ALL: Activity Level 1) Active {C} 1.0000 (0.0000, 0.0000) N/R 2) Inactive {C} 1.0000 (0.2200,4.6000) N/R 3. Phase 1 - Morbidity: Metabolic-Adiposity: BMI: Increasing BMI slope a. ALL: Activity Level 1) Active {C} 1.0000 (0.0000, 0.0000) N/R 2) Inactive {C} 1.7000 (0.4000,7.2000) N/R	
Footnotes: N/R = not reported, [s] = static, [p] = progressive, {C} = Reader should refer to the associated comment in the row below from where this symbol appears., AI/AN = American Indian or Alaska Native, AA = African American, [CA] = Clinical assessment, [CR] = Chart review, [DC] = Death certificate, [DM] = Directly (measured), [MR] = Medical record, [O] = Other, [PR] = Proxy report, [SR] = Self-reported, SD = Standard deviation, SD(T) = variance within arm for intervention times, Mean(D) = mean difference, SD(D) = variance for intervention differences between arms over times compared, p = p-value for within-arm comparisons, [p] = p-value for comparisons with the referent or first category listed., * = p-value for the statistical test for linear trend.					
Citation: Moore,L.L. Nguyen,U.S. Rothman,K.J.et al. Preschool physical activity level and change in body fatness in young children. The Framingham Children's Study American Journal of Epidemiology.142.(9):982-8., 1995					
Draft: The data conveyed in evidence tables are preliminary and are subject to revision. At this point in time, tabled data are only intended to assist Federal Advisory Committee Act panel members in their deliberations.					

Direct Link to PDF

Search

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Search Result Count:1

Please click the column header to sort by that column. To view the Evidence table, select the desired abstract(s) and then click on one of the View Selected Evidence Table buttons.

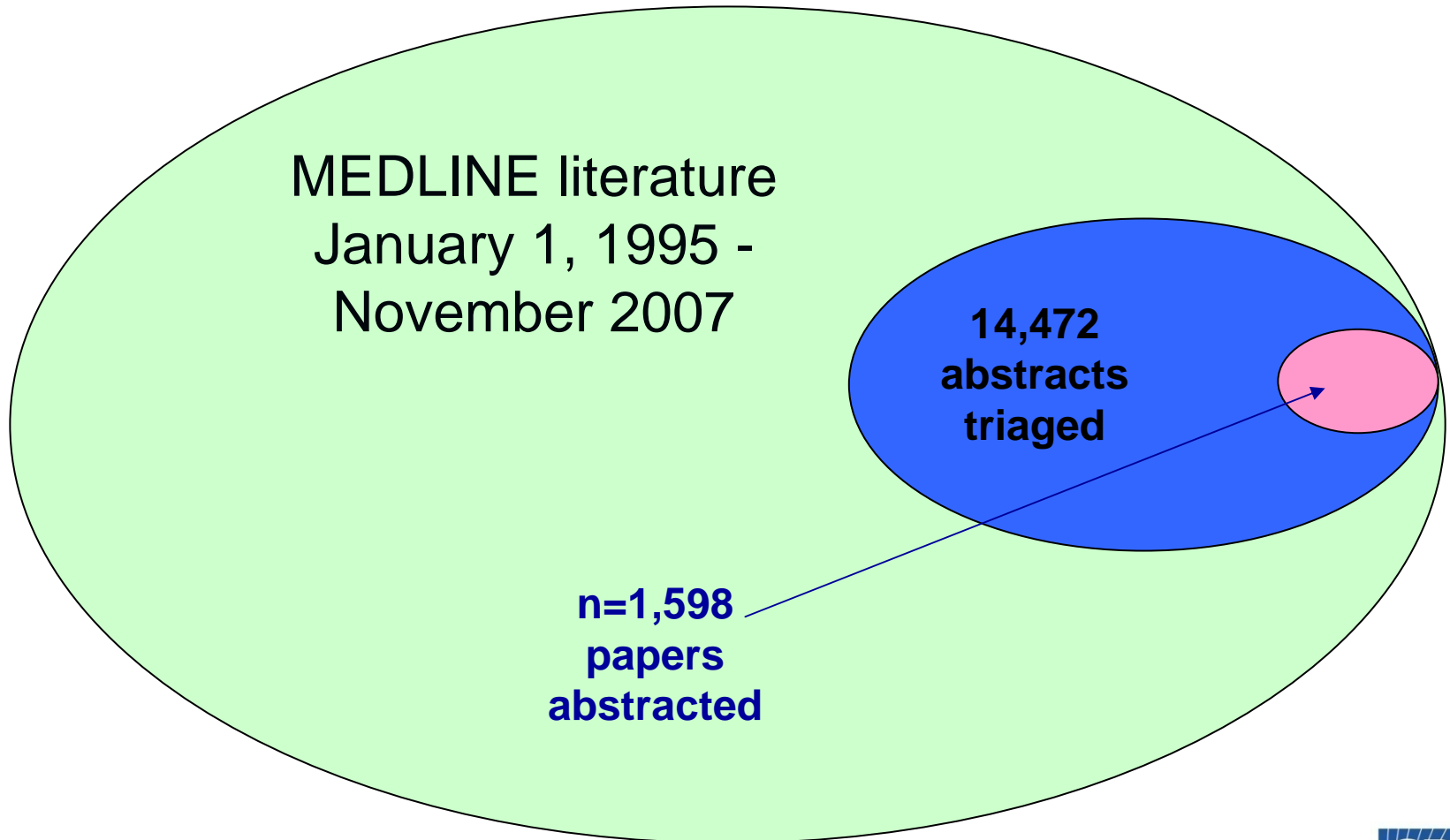
View Selected Evidence Tables (Abridged)

View Selected Evidence Tables (Unabridged)

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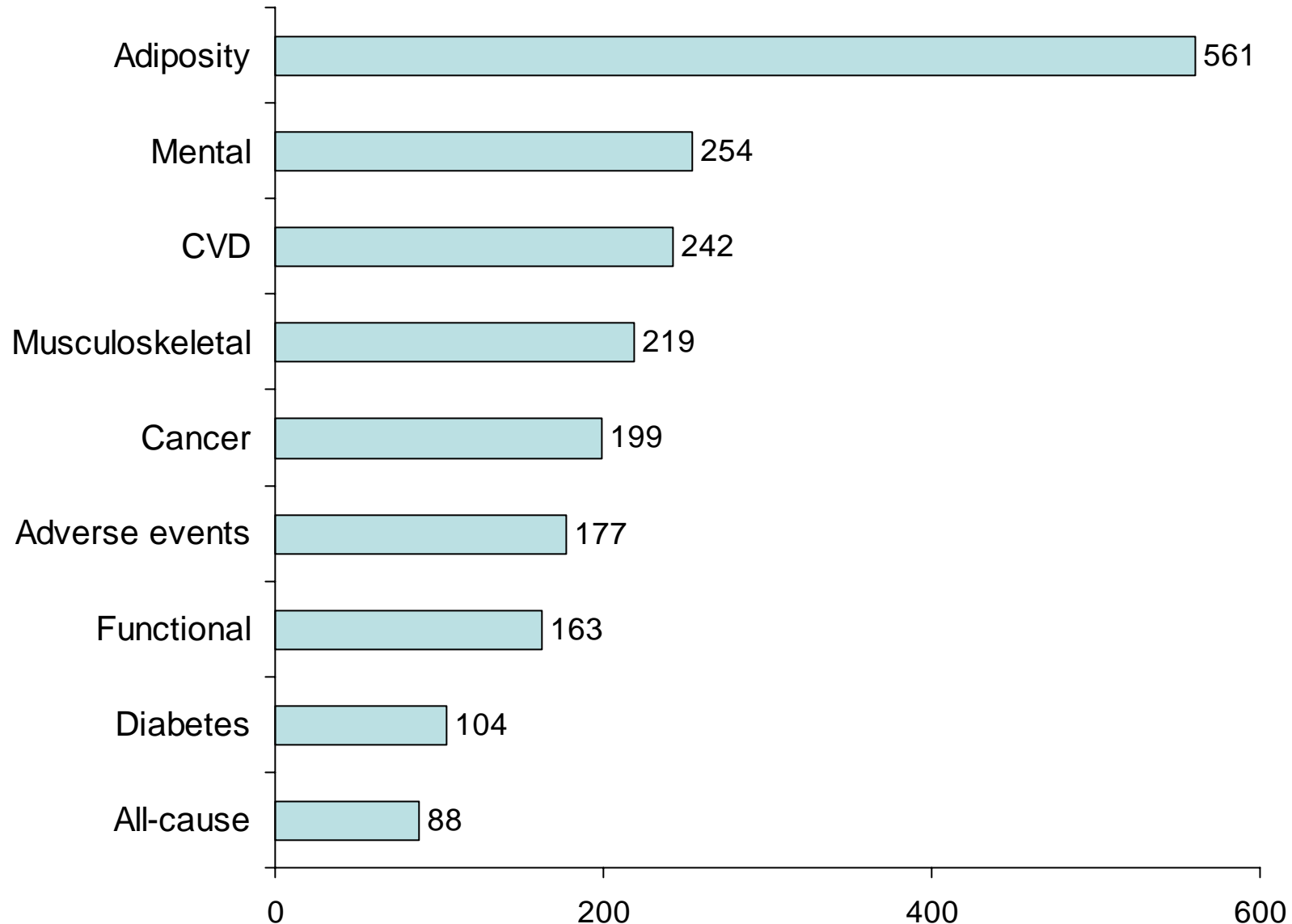
Select	Abridged Evidence Table	Unabridged Evidence Table	Article PDF	Title	First Author	Team	Study Type	Published Year
<input type="checkbox"/>	7636	7636	16835422	Daily activity energy expenditure and mortality among older adults.[see comment]	Manini, T.M.	Older Adult	Prospective Cohort Study	2006

Physical Activity Guidelines Scientific Database

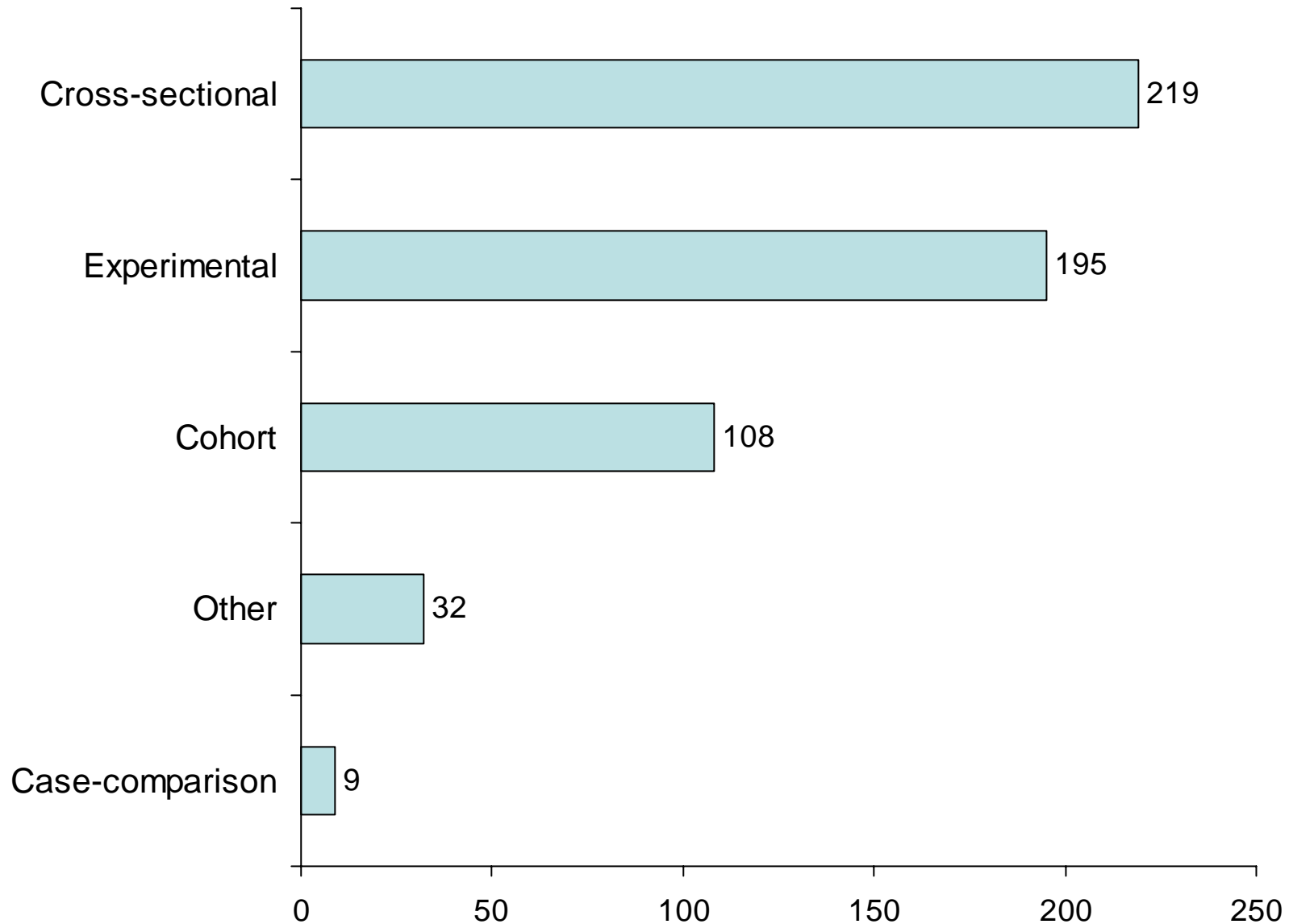


<http://apps.nccd.cdc.gov/PhysicalActivityGuidelines>

Number of Studies with the Following Health Outcomes in *Physical Activity Guidelines* Scientific Review Database



Number of Studies of Physical Activity and Adiposity by Study Design, US Physical Activity Guidelines Scientific Database -- March, 2008



Federal Advisory Committee

William L. Haskell, Stanford University - Chair
Miriam Nelson, Tufts University - Vice Chair

Rod K. Dishman, University of Georgia
Edward T. Howley, University of Tennessee
Wendy Kohrt, University of Colorado
William Kraus, Duke University
I-Min Lee, Harvard University
Anne McTiernan, Fred Hutchinson Cancer Center
Kenneth E. Powell, Atlanta Georgia
Russell R. Pate, University of South Carolina
Judy Regensteiner, University of Colorado
James Rimmer, University of Illinois, Chicago
Antronette Yancey, UCLA

Advisory Committee Process

- Three public Committee meetings
 - June and December, 2007 and February 2008
 - Major work in subcommittees
 - ◆ Consultants to subcommittees (>30, including Dr. DiPietro)
 - ◆ Outcome-focused chapters
 - As developed for Literature Database
 - ◆ Youth, Understudied Populations

The Federal Advisory Committee

PA Guidelines Advisory Committee



650+ page report
summarizing the science



Guidelines Development

HHS writing group

- Chaired by Dr. David Buchner
- Members from:
 - Office of Disease Prevention and Health Promotion
 - Centers for Disease Control and Prevention
 - National Institutes of Health
 - President's Council for Physical Fitness and Sports
 - Office of Assistant Secretary for Planning and Evaluation



HHS Writing Group



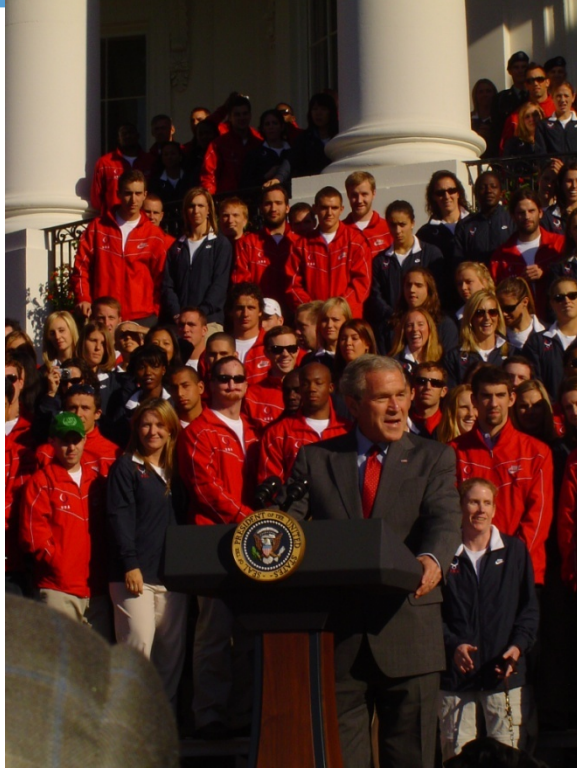
Guidelines Writing Process

- Strong reliance upon Advisory Committee Report
- Writing group teams draft chapters
- In-person working meeting in DC
- EXTENSIVE review
 - Peer, HHS Departmental (plus)
 - Over 900 individual comments considered and addressed

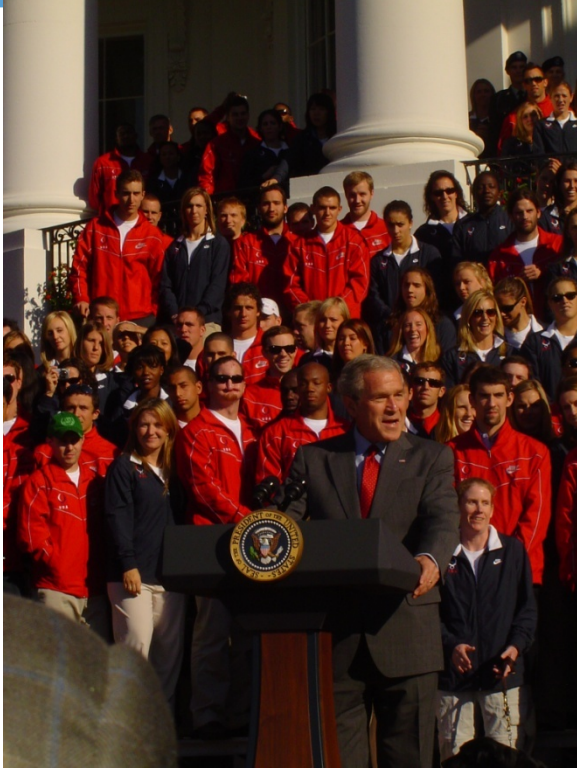
October 7, 2008



Launch Day



Launch Day



Launch Day



HHS Launch Event



Physical Activity Guidelines for Americans

**The Federal Government published
comprehensive Physical Activity
Guidelines for Americans for the first
time in October 2008**



What Is New About the Guidelines?

- First major science review in more than a decade.
- Include a range of activity: “The more you do, the more benefits you gain.”
- Specify a total amount of activity per week. People can design their own way to meet the Guidelines.
- Address Americans over the age of 6 and specific subgroups.



Major Conclusions

- Regular activity reduces risk of many adverse health outcomes
- Some activity is better than none
- Added health benefits generally occur as amount of activity increases
- Most health benefits require at least 2 hours and 30 minutes (150 minutes) a week of moderate-intensity physical activity



Major Conclusions (cont.)

- Both aerobic & muscle-strengthening activity are beneficial
- For fitness benefits, aerobic activity should be episodes of at least 10 minutes.
- Health benefits apply to people of all types, sizes, and ages
- Health benefits occur for people with disabilities
- Physical activity can be done safely. Benefits far outweigh possible risks.



Continuum of Benefits

- Adults who participate in any amount of physical activity gain some health benefits.
- A total of 2 hours and 30 minutes a week of moderate-intensity aerobic activity *substantially* reduces the risk of many chronic diseases and other adverse health outcomes.
- As a person moves from 2 hours and 30 minutes a week toward 5 hours a week, he or she gains *additional and more extensive* health benefits.



Does Everyone Need the Same Amount of Physical Activity?

- The amount and type of activity needed depends on:
 - age; and
 - special conditions
- Many choices—“Be Active Your Way” means meeting the guidelines based on setting personal goals.



Key Guidelines – Children and Adolescents (ages 6–17)

- 1 hour or more of daily physical activity that is at least moderate:
 - Most of the 1 or more hours a day should be either moderate- or vigorous-intensity aerobic physical activity.
 - Do vigorous-intensity physical activity at least 3 days a week.



Key Guidelines – Children and Adolescents (ages 6-17) (cont.)

- As part of 1 or more hours of daily physical activity, include muscle-strengthening activities at least 3 days a week.
- As part of 1 or more hours of daily physical activity, include bone-strengthening activities at least 3 days a week.
- It is important to encourage young people to participate in physical activities that are age appropriate, enjoyable, and offer variety.

Key Guidelines – Adults (ages 18–64)

- Minimum levels a week
 - 2 hours and 30 minutes (150 minutes) moderate-intensity aerobic activity; or
 - 1 hour and 15 minutes (75 minutes) vigorous-intensity aerobic activity; or
 - An equal combination
- Muscle-strengthening activities that involve all major muscle groups should be performed on 2 or more days of the week.



Key Guidelines – Adults (ages 18–64) (cont.)

- For additional health benefits
 - 5 hours (300 minutes) moderate-intensity aerobic activity a week; or
 - 2 hours and 30 minutes (150 minutes) vigorous-intensity aerobic activity a week; or
 - An equivalent combination (2:1 rule of thumb)



Key Guidelines – Older Adults (ages 65 years and older)

- Follow adult guidelines. When not possible, be as physically active as abilities and conditions allow.
- Do exercises that maintain or improve balance if at risk for falling.
- Those without chronic conditions and symptoms (e.g., chest pain or pressure, dizziness, or joint pain) do not need to consult a health care provider about physical activity.



Additional Considerations

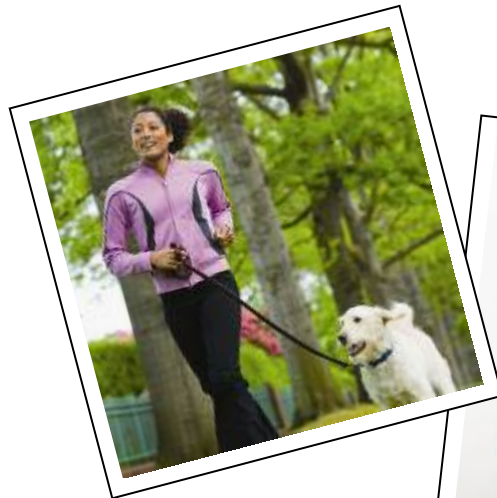
Other subgroups of the population in the Physical Activity Guidelines for Americans include:

- Persons with disabilities
- Women during pregnancy and the postpartum period
- Adults with selected chronic conditions
 - Type 2 diabetes, osteo-arthritis,
 - Cancer survivors



What About Using Daily Activity Instead of Weekly for Adults?

- The current Guidelines recommend a total amount of aerobic activity time per week.
- The recommendation of doing 30 minutes of moderate physical activity on 5 days a week is one way to meet the minimum amount recommended.





PRE-LAUNCH

- Invited 16 “pre-launch” supporters to serve as a “reaction group.”
- Reaction group members selected based on their organization’s mission, their national reach, and population(s) they serve.
- Many serve as President’s Council science partners.
- These supporters provided input about what would be important to them to include in a PAG toolkit, the look and feel of partnership materials, and types of messaging.
- Operated through conference calls and collaborative workspace set up through ODPHP.





PHYSICAL ACTIVITY GUIDELINES COMMUNICATIONS COMMITTEE

- Led by Kay Loughrey, ODPHP
- Members of ODPHP, PCPFS, CDC, and ASPE
- Provided leadership on communications/toolkit items
- Worked with collaborative workspace





BE ACTIVE YOUR WAY ON-LINE COMMUNITY

U.S. Department of Health & Human Services

Physical Activity Guidelines Communication Group

[Home](#) > [PAG](#) >

For Help, please e-mail your [Community Facilitator](#)

[PAG](#) > [Library](#)

[Workspace](#) [Partnership Toolkit Signup](#) [Discussion](#) [Library](#) [Survey](#)

Library

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File	Date		Size
Toolkit User's Guide	10/02/2008 12:31	View Now	1516 K
COMMENTS (0)			
Frequently Asked Questions	10/02/2008 11:12	View Now	928 K
COMMENTS (0)			
Power Point Presentation	10/02/2008 11:01	View Now	246 K
COMMENTS (0)			
Event Flyers	10/02/2008 10:59	View Now	242 K
COMMENTS (0)			
Posters	10/02/2008 10:58	View Now	757 K
COMMENTS (0)			
Fact Sheet Professionals	10/02/2008 10:52	View Now	195 K
COMMENTS (0)			
Consumer Fact Sheet for	10/02/2008 10:51	View Now	219 K

Internet





LAUNCH: OCTOBER 7, 2008

- Partnership Forum hosted by PCPFS and ODPHP
- Website and Toolkit introduced

www.health.gov/paguidelines

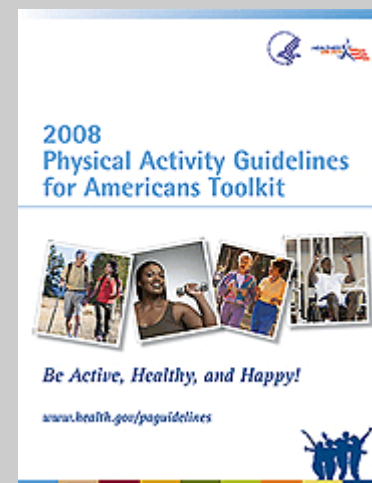




PHYSICAL ACTIVITY GUIDELINES TOOLKIT

Toolkit resources include printed and CD-ROM versions of the following items:

- 2008 Physical Activity Guidelines for Americans
- Be Active Your Way: A Guide for Adults
- Be Active Your Way: A Fact Sheet for Adults
- Physical Activity Guidelines for Americans Toolkit User's Guide
- Posters (4)
- Event Flyers (4)
- At-A-Glance: A Fact Sheet for Professionals
- Frequently Asked Questions (FAQ)
- Federal Resources
- PowerPoint Presentation (available on CD-ROM only)





Physical Activity Guidelines for Americans

[Home](#)[FAQs](#)[Guidelines](#)[Be Active Your Way](#)[Toolkit](#)[Advisory Committee](#)[Federal Resources](#)[Become a Supporter](#)[News Room](#)[Get Active](#)[healthfinder.gov](#)

2008 Physical Activity Guidelines for Americans

The Federal Government has issued its first-ever Physical Activity Guidelines for Americans. They describe the types and amounts of physical activity that offer substantial health benefits to Americans.



2008 Physical Activity Guidelines for Americans

For policy makers and health professionals



Be Active Your Way: A Guide for Adults

For adults aged 18–64



2008 Physical Activity Guidelines for Americans Toolkit

For organizations and communities



2008 Physical Activity Guidelines Advisory Committee Report

For health professionals and researchers

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This page last updated on: 10/7/2008

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Office of Disease Prevention & Health Promotion, U.S. Department of Health and Human Services.





Physical Activity Guidelines for Americans

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Become a Supporter

Your organization is invited to sign up to be a Supporter of the 2008 Physical Activity Guidelines for Americans and help get the word out about the Guidelines. Supporters are eligible to receive a toolkit. The toolkit offers you resources that will complement and support what your organization is doing to encourage Americans to get the amount of physical activity they need based on the Guidelines and their own goals.

When you complete the sign up form below, you will receive a form to sign and return by fax that briefly describes how your organization will use the toolkit to benefit your community.

Fields with an * are required.

* Organization Name:

* Mailing Address1:

Mailing Address2:

* Contact First Name:

* Contact Last Name:

* E-mail:

Web address for
Organization's physical
activity information:

Would you like to receive future emails about physical activity tools?

☐ Yes ☒ No



OVER 1,000 SUPPORTERS HAVE SIGNED UP TO DATE

Types of Supporters:

- Domestic and international
- Non-profits
- Corporations
- Schools, colleges and universities
- Cities and counties
- State Departments of Health and Education
- Fitness Centers
- Faith Based Organizations
- Pharma
- Hospitals and medical centers
- Medical organizations
- Senior and youth centers/organizations
- Health Insurance companies
- Governor's Councils on Physical Activity & Health





POST-LAUNCH

Ongoing Outreach:

- Virtual Launch – tentative date: January 2008
- Long-term Outreach:
 - Be Active Your Way Online Community
 - e-marketing and social media
 - Consumer success stories on Healthfinder
 - Outreach to healthcare providers
 - Quarterly communications with Supporters via webinars and conference calls
 - Blogging





WEBSITES

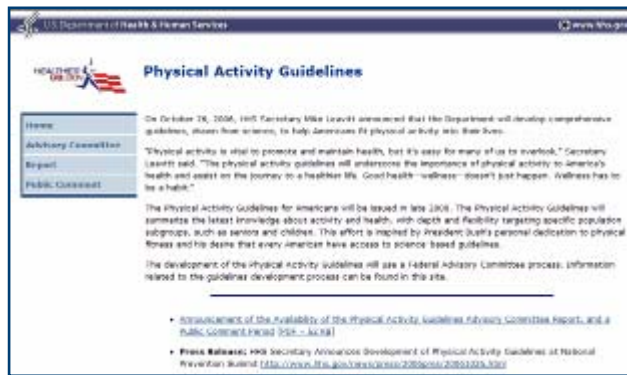
- *www.health.gov/paguidelines*
- *www.healthfinder.gov*
- *www.fitness.gov*
- *www.cdc.gov/physicalactivity/everyone/guidelines/index.html*

How Can You Get Involved?

- Sign up as a Supporter & help spread the word about the Physical Activity Guidelines.
- Receive a toolkit filled with outreach information.
- Be listed as a Supporter on the official Physical Activity Guidelines Web site.



For More Information



www.health.gov/paguidelines



www.healthfinder.gov (Get Active)

Acknowledgements

Over 200 individuals contributed to the Guidelines process:

13 Advisory Committee members

34 Consultants to the subcommittees

8 Assistants to Committee members

15 Scientific database management staff

6 HHS interns

57 Scientific literature abstractors

10 Physical Activity Guidelines Management Staff

20 Members of the HHS writing committee

50 or more reviewers of the Guidelines

Uncounted contract staff for meeting and database support and publications

Be Active Your Way!
Be Active, Healthy, and Happy!

