

Science Base Chapter:

Physical Activity

Physical Activity Writing Group

Physical Activity
Writing Group
Membership

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Introduction

- The combination of a healthy diet and regular physical activity is central to promoting overall health and preventing many chronic diseases.
- Physical activity is important for all people—children, adolescents, adults, older adults, women during pregnancy and the postpartum period, and individuals with disabilities.

Topics & Questions Addressed

Physical Activity Dose

What dose of physical activity is most likely to provide health benefits in children and adolescents ?

What dose of physical activity is most likely to provide health benefits in adults?

Are there any special considerations for dose of physical activity for older adults?

Physical Activity and Health Outcomes in Children and Adolescents

What is the relationship between physical activity, body weight, and health outcomes in children and adolescents?

Topics & Questions Addressed

Physical Activity and Health Outcomes in Adults

What is the relationship between physical activity and body weight?

What is the relationship between physical activity and cardiorespiratory health?

What is the relationship between physical activity and metabolic health and risk of type 2 diabetes?

What is the relationship between physical activity and musculoskeletal health?

What is the relationship between physical activity and incidence of breast and colon cancer?

What is the relationship between physical activity and mental health?

Topics & Questions Addressed

Physical Activity and Health Outcomes in People with Disabilities

What is the relationship between physical activity and health outcomes in people with disabilities?

Physical Activity and Health Outcomes During Pregnancy and the Postpartum Period

Does being physically active during pregnancy and the postpartum period provide health benefits?

Physical Activity and Adverse Events

What is the relationship between the amount and type of physical activity and the risk of adverse events?

Topics & Questions Addressed

Physical Activity Interventions in Children and Adolescents

What is the relationship between physical activity participation and interventions in school-based settings?

What is the relationship between physical activity participation and interventions to change the built environment?

What is the relationship between physical activity participation and interventions based in home settings?

What is the relationship between physical activity participation and interventions based in early care and education centers?

What is the relationship between physical activity participation and interventions based in primary health care settings?

Sources of Evidence

Existing federal physical activity-related reports:

Physical Activity Guidelines Advisory Committee Report,
2008

Physical Activity Guidelines for Americans, 2008

Physical Activity Guidelines for Americans Midcourse Report:
Strategies to Increase Physical Activity Among Youth

Status Update

- No substantive changes since the work was previously reported in a public meeting.

Physical Activity Guidelines for Americans

Recommendations for Children and Adolescents Ages 6 to 17 Years

Children and adolescents should do 60 minutes or more of physical activity daily.

- **Aerobic:** Most of the 60 or more minutes a day should be either moderate- or vigorous-intensity aerobic physical activity, and should include vigorous-intensity physical activity at least 3 days a week.
- **Muscle-strengthening:** As part of their 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity on at least 3 days of the week.
- **Bone-strengthening:** As part of their 60 or more minutes of daily physical activity, children and adolescents should include bone-strengthening physical activity on at least 3 days of the week.

Physical Activity Guidelines for Americans

Recommendations for Adults Ages 18 years and Older

- Adults should do at least 150 minutes (2 hours and 30 minutes) a week of moderate-intensity aerobic physical activity
 - OR 75 minutes (1 hour and 15 minutes) a week of vigorous-intensity aerobic physical activity
 - OR an equivalent combination of moderate- and vigorous intensity aerobic activity
- For additional and more extensive health benefits, adults should increase their aerobic physical activity to 300 minutes (5 hours) a week of moderate intensity
 - OR 150 minutes a week of vigorous intensity aerobic physical activity
 - OR an equivalent combination of moderate- and vigorous-intensity activity
- Adults should also do muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on 2 or more days a week

Physical Activity Guidelines for Americans

Recommendations for Adults Ages 65 years and Older

- When older adults cannot do 150 minutes of moderate-intensity aerobic activity a week because of chronic conditions, they should be as physically active as their abilities and conditions allow.
- Older adults should do exercises that maintain or improve balance if they are at risk of falling.
- Older adults should determine their level of effort for physical activity relative to their level of fitness.

Major Conclusions and Recommendations

- Being physically active is one of the most important steps that people of all ages can take to improve and maintain their health.
- All individuals should avoid physical inactivity.
- The majority of the U.S. population does not meet physical activity recommendations.

Major Conclusions and Recommendations

- Compared to less active counterparts, physically active people have:
 - improved growth and development
 - higher levels of fitness
 - a lower risk profile for developing a number of disabling medical conditions
 - lower rates of various chronic diseases

Major Conclusions and Recommendations

- Ensure that all individuals have access to safe, affordable, and enjoyable modes of physical activity throughout the day in the environments where they live, learn, work, and play.

Chapter Summary

- There is strong evidence supporting the importance of regular physical activity for health promotion and disease prevention in the U.S. population.
- Given the low physical activity participation rates in this country, it is critically important to identify proven strategies and approaches to increase population-level physical activity across the lifespan.

Special Thanks

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Discussion