

# Behavioral Counseling in Primary Care To Promote Physical Activity: Recommendation and Rationale

U.S. Preventive Services Task Force\*

This statement summarizes the U.S. Preventive Services Task Force (USPSTF) recommendations on counseling by primary care physicians to promote physical activity and the supporting scientific evidence, and it updates the 1996 recommendations contained in the *Guide to Clinical Preventive Services*, second edition. The complete USPSTF recommendations and rationale statement on this topic, which includes a brief review of the supporting evidence, is available through the USPSTF Web site ([www.preventiveservices.ahrq.gov](http://www.preventiveservices.ahrq.gov)), the National Guideline Clearinghouse ([www.guideline.gov](http://www.guideline.gov)), and in print through the Agency for

Healthcare Research and Quality Publications Clearinghouse (telephone, 800-358-9295; e-mail, [ahrqpubs@ahrq.gov](mailto:ahrqpubs@ahrq.gov)). The complete information on which this statement is based, including tables and references, is available in the accompanying article in this issue and in the summary of the evidence and systematic evidence review on the Web sites already mentioned.

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

See related article on pp 208-215.

\*For a list of the members of the U.S. Preventive Services Task Force, see the Appendix.

## SUMMARY OF THE RECOMMENDATION

The U.S. Preventive Services Task Force (USPSTF) concludes that the evidence is insufficient to recommend for or against behavioral counseling in primary care settings to promote physical activity. This is a **grade I recommendation**. (See Appendix Table 1 for a description of the USPSTF classification of recommendations.)

*The USPSTF found insufficient evidence to determine whether counseling patients in primary care settings to promote physical activity leads to sustained increases in physical activity among adult patients. (See Appendix Table 2 for a description of the USPSTF classification of levels of evidence.) Controlled trials of physical activity counseling in adult primary care patients were of variable quality and had mixed results. There were no completed trials with children or adolescents that compared counseling with usual care practices. Data on the feasibility and potential harms of routine physical activity counseling in primary care settings are limited. As a result, the USPSTF could not determine the balance of potential benefits and harms of routine counseling to promote physical activity in adults. The USPSTF reviewed only the literature on the effectiveness of primary care counseling to promote physical activity. It did not review the evidence for the effectiveness of physical activity to reduce chronic disease morbidity and mortality, which has been well documented in other recent reviews, or review evidence of counseling in other settings.*

## CLINICAL CONSIDERATIONS

Regular physical activity helps prevent cardiovascular disease, hypertension, type 2 diabetes mellitus, obesity, and osteoporosis. It may also decrease all-cause morbidity and lengthen life span (1).

Benefits of physical activity are seen at even modest levels of activity, such as walking or bicycling 30 minutes per day on most days of the week. Benefits increase with increasing levels of activity (2).

Whether routine counseling and follow-up by primary

care physicians result in increased physical activity among adult patients is unclear. Existing studies limit the conclusions that can be drawn about efficacy, effectiveness, and feasibility of primary care physical activity counseling. Most studies have tested brief, minimal, and low-intensity primary care interventions, such as 3- to 5-minute counseling sessions in the context of a routine clinical visit.

Multicomponent interventions combining provider advice with behavioral interventions to facilitate and reinforce healthy levels of physical activity appear the most promising. Such interventions often include patient goal setting, written exercise prescriptions, individually tailored physical activity regimens, and mailed or telephone follow-up assistance provided by specially trained staff. Linking primary care patients to community-based physical activity and fitness programs may enhance the effectiveness of primary care clinician counseling (3).

Potential harms of physical activity counseling have not been well defined or well studied. They may include muscle- and fall-related injuries or cardiovascular events (4). It is unclear whether more extensive patient screening, certain types of physical activity (for example, moderate vs. vigorous exercise), more gradual increases in exercise, or more intensive counseling and follow-up monitoring will decrease the likelihood of injuries related to physical activity. Existing studies provide insufficient evidence regarding the potential harms of various activity protocols, such as moderate compared with vigorous exercise.

The brief review of the evidence that is normally included in USPSTF recommendations is available in the complete Recommendation and Rationale statement on the USPSTF Web site ([www.preventiveservices.ahrq.gov](http://www.preventiveservices.ahrq.gov)).

## DISCUSSION

Many benefits of physical activity have been identified in epidemiologic and laboratory studies. The challenge to

clinicians and communities is to determine how to promote appropriate levels of regular physical activity in large segments of the population. The USPSTF and the Task Force on Community Preventive Services have addressed these issues. Whereas the USPSTF addressed the effectiveness of clinician counseling in primary care to increase physical activity, the Task Force on Community Preventive Services has addressed the effectiveness of community-based programs that target groups rather than individual patients (3). That Task Force found a number of interventions to be effective in promoting physical activity, including community-wide campaigns, changes in school-based physical education programs, improved access to places for physical activity, and individually based behavior change programs. The latter programs generally recruited groups of volunteers at community sites, work sites, or schools; used group settings to set individual goals and teach skills for incorporating physical activity into daily routines; and provided reinforcement and problem solving through telephone contact or group meetings.

Although some intervention trials suggest that primary care counseling can promote increases in physical activity, the sum of studies conducted and reported to date are inadequate to determine the overall efficacy, effectiveness, and feasibility of physical activity counseling by clinicians in primary care settings. Reasons for mixed results among existing studies are not clear but involve variability in the rigor with which the interventions were delivered or evaluated, and may reflect a failure to distinguish patients who were ready to begin an exercise program from those who were not or a lack of the most effective mix of intervention strategies. Further studies are needed of the effects of clinician counseling on the level of physical activity in children, adolescents, and adults. The balance of benefits and harms, as well as approaches to preventing adverse effects, particularly among older adults and those less fit, needs further exploration.

### RECOMMENDATIONS OF OTHERS

The Canadian Task Force on Preventive Health Care concluded that the evidence for or against a recommendation to include physical activity counseling in the periodic health examination was lacking (5). Many organizations and agencies recommend that health care providers counsel persons about physical activity; these recommendations are based on the health benefits of physical activity rather than on the effectiveness of counseling by clinicians for promoting changes in physical activity. Such organizations include the U.S. Department of Health and Human Services (*Healthy People 2010*) (1), U.S. Centers for Disease Control and Prevention, U.S. National Center for Education in Maternal and Child Health (*Bright Futures*) (6), American Academy of Family Physicians (7), American Academy of Pediatrics (8), The American Heart Association (9), and The American College of Obstetricians and Gynecologists (10). The Task Force on Community Preventive Services

recommends individually adapted health behavioral programs along with several other community-based interventions. Most of the studies that demonstrate the effectiveness of these interventions were not included in the USPSTF review because they were conducted in groups outside the primary care setting or through the media.

### APPENDIX

Members of the U.S. Preventive Services Task Force are Alfred O. Berg, MD, MPH, *Chair* (University of Washington, Seattle, Washington); Janet D. Allan, PhD, RN, CS, *Vice-Chair*, (University of Texas Health Science Center, San Antonio, Texas); Paul Frame, MD (Tri-County Family Medicine, Cohocton, and University of Rochester, Rochester, New York); Charles J. Homer, MD, MPH (National Initiative for Children's Healthcare Quality, Boston, Massachusetts); Mark S. Johnson, MD, MPH (University of Medicine and Dentistry of New Jersey–New Jersey Medical School, Newark, New Jersey); Jonathan D. Klein, MD, MPH (University of Rochester School of Medicine, Rochester, New York); Tracy A. Lieu, MD, MPH (Harvard Pilgrim Health Care and Harvard Medical School, Boston, Massachusetts); Cynthia D. Mulrow, MD, MSc (University of Texas Health Science Center, San Antonio, Texas); Tracy C. Orleans, PhD (The Robert Wood Johnson Foundation, Princeton, New Jersey); Jeffrey F. Peipert, MD, MPH (Women and Infants' Hospital, Providence, Rhode Island); Nola J. Pender, PhD, RN (University of Michigan, Ann Arbor, Michigan); Albert L. Siu, MD, MSPH (Mount Sinai School of Medicine, New York, New York); Steven M. Teutsch, MD, MPH (Merck & Co., Inc., West Point, Pennsylvania); Carolyn Westhoff, MD, MSc (Columbia University, New York, New York); and Steven H. Woolf, MD, MPH (Virginia Commonwealth University, Fairfax, Virginia).

*Appendix Table 1. U.S. Preventive Services Task Force Grades and Recommendations\**

Grade	Recommendation
A	The USPSTF strongly recommends that clinicians routinely provide [the service] to eligible patients. <i>The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.</i>
B	The USPSTF recommends that clinicians routinely provide [the service] to eligible patients. <i>The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.</i>
C	The USPSTF makes no recommendation for or against routine provision of [the service]. <i>The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation.</i>
D	The USPSTF recommends against routinely providing [the service] to asymptomatic patients. <i>The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.</i>
I	The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. <i>Evidence that the [service] is effective is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.</i>

\* The U.S. Preventive Services Task Force (USPSTF) grades its recommendations according to one of five classifications (A, B, C, D, I) reflecting the strength of evidence and magnitude of net benefit (benefits minus harms).

**Appendix Table 2. U.S. Preventive Services Task Force Grades for Strength of Overall Evidence\***

Grade	Definition
Good	Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes
Fair	Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies; generalizability to routine practice; or indirect nature of the evidence on health outcomes
Poor	Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes

\* The U.S. Preventive Services Task Force (USPSTF) grades the quality of the overall evidence for a service on a three-point scale (good, fair, poor).

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