

Behavioral Counseling Interventions to Promote a Healthful Diet and Physical Activity for Cardiovascular Disease Prevention in Adults: Recommendation Statement

► See related Putting Prevention into Practice on page 869.

This summary is one in a series excerpted from the Recommendation Statements released by the U.S. Preventive Services Task Force (USPSTF). These statements address preventive health services for use in primary care clinical settings, including screening tests, counseling, and preventive medications.

The complete version of this statement, including supporting scientific evidence, evidence tables, grading system, members of the USPSTF at the time this recommendation was finalized, and references, is available on the USPSTF website at <http://www.uspreventiveservicestaskforce.org>.

A collection of USPSTF recommendation statements reprinted in *AFP* is available at <http://www.aafp.org/afp/uspstf>.

Summary of Recommendation and Evidence

Population: General adult population without a known diagnosis of hypertension, diabetes mellitus, hyperlipidemia, or cardiovascular disease (CVD).

Recommendation: Although the correlation among healthful diet, physical activity, and the incidence of CVD is strong, existing evidence indicates that the health benefit of initiating behavioral counseling in the primary care setting to promote a healthful diet and physical activity is small. Clinicians may choose to selectively counsel patients rather than incorporate counseling into the care of all adults in the general population.

Considerations: Issues to consider include other risk factors for cardiovascular disease, a patient's readiness for change, social support and community resources that support behavioral change, and other health care and preventive service priorities.

Potential Harms: Harms may include the lost opportunity to provide other services that have a greater health effect.

Grade: This is a C recommendation (*Table 1*). Visit <http://www.uspreventiveservicestaskforce.org/uspstfl1/physactivity/physrs.htm> for grades and classification of levels of certainty about net benefit.

Rationale

IMPORTANCE

CVD is the leading cause of death in the United States. Adults who adhere to national guidelines for a healthful diet¹ and physical activity² have lower cardiovascular morbidity and mortality than those who do not. All persons, regardless of risk status for CVD, can benefit from improved nutrition, healthy eating behaviors, and increased physical activity.^{1,2}

BENEFITS OF INTERVENTIONS TO CHANGE BEHAVIOR AND OUTCOMES

In adults without known hypertension, diabetes, hyperlipidemia, or CVD, there is adequate evidence that the benefits of medium- to high-intensity behavioral counseling interventions to improve diet and increase physical activity are small to moderate.

There is adequate evidence that the benefits of medium- to high-intensity behavioral counseling interventions to improve intermediate health outcomes (that is, decreased blood pressure, decreased blood lipid levels, and improved glucose tolerance) are small in the short term (up to one year). There is inadequate evidence that medium- to high-intensity behavioral counseling interventions directly decrease rates of mortality or CVD events.

HARMS OF COUNSELING INTERVENTIONS

There is adequate evidence that intense physical activity is only rarely associated with adverse cardiovascular events. None of the studies reviewed was designed to detect adverse effects of interventions to promote a healthful diet. The U.S. Preventive Services Task Force (USPSTF) determined that little to no potential harms are associated with these behavioral counseling interventions.

USPSTF ASSESSMENT

The USPSTF concludes with moderate certainty that medium- or high-intensity behavioral counseling interventions in the primary care setting to promote a healthful diet and physical activity have a small net benefit in adult patients without CVD, hypertension, hyperlipidemia, or diabetes.

Table 1. Behavioral Counseling Interventions to Promote a Healthful Diet and Physical Activity for Cardiovascular Disease Prevention in Adults: Clinical Summary of the USPSTF Recommendation

Population	General adult population without a known diagnosis of hypertension, diabetes mellitus, hyperlipidemia, or cardiovascular disease
Recommendation	Although the correlation among healthful diet, physical activity, and the incidence of cardiovascular disease is strong, existing evidence indicates that the health benefit of initiating behavioral counseling in the primary care setting to promote a healthful diet and physical activity is small. Clinicians may choose to selectively counsel patients rather than incorporate counseling into the care of all adults in the general population.
	Considerations: Issues to consider include other risk factors for cardiovascular disease, patient readiness for change, social support and community resources that support behavioral change, and other health care and preventive service priorities.
	Potential Harms: Harms may include the lost opportunity to provide other services with a greater health effect.
	Grade: C
Risk assessment	If an individual's risk of cardiovascular disease is uncertain, there are several calculators and models available to quantify a person's 10-year risk for cardiac events, such as the Framingham-based Adult Treatment Panel III calculator (available at http://hp2010.nhlbihin.net/atpiii/calculator.asp). Generally, persons with a 10-year risk greater than 20% are considered high risk, those with a 10-year risk less than 10% are considered low risk, and those in the 10% to 20% range are considered intermediate risk.
Interventions	Medium- or high-intensity behavioral interventions to promote a healthful diet and physical activity may be provided to individual patients in primary care settings or in other sectors of the health care system after referral from a primary care clinician. In addition, clinicians may offer healthful diet and physical activity interventions by referring the patient to community-based organizations. Strong linkages between the primary care setting and community-based resources may improve the delivery of these services.
Balance of benefits and harms	The USPSTF concludes with moderate certainty that medium- or high-intensity primary care behavioral counseling interventions to promote a healthful diet and physical activity have a small net benefit in adult patients without cardiovascular disease, hypertension, hyperlipidemia, or diabetes.
Relevant recommendations from the USPSTF	The USPSTF has made recommendations on screening for carotid artery stenosis, coronary heart disease, high blood pressure, lipid disorders, peripheral artery disease, and obesity. These recommendations are available at http://www.uspreventiveservicestaskforce.org .

NOTE: For the full recommendation statement and supporting documents, go to <http://www.uspreventiveservicestaskforce.org>.

USPSTF = U.S. Preventive Services Task Force.

Clinical Considerations

PATIENT POPULATION

This recommendation applies to adults 18 years or older in primary care settings who do not have CVD, hypertension, hyperlipidemia, or diabetes. It does not apply to adults who have known CVD, hypertension, hyperlipidemia, or diabetes. The USPSTF is in the process of updating its recommendation on behavioral counseling interventions for this group.

EFFECTIVE BEHAVIORAL COUNSELING INTERVENTIONS

Studies of medium- and high-intensity behavioral counseling interventions, but not low-intensity interventions, showed beneficial effects on behavioral and intermediate health outcomes.^{3,4} The intensity of the intervention was categorized by total patient contact time as low (one to 30 minutes),

medium (31 to 360 minutes), or high (greater than 360 minutes).

In general, low-intensity interventions consisted of only mailed materials or of one or two brief sessions with primary care clinicians or other trained persons. Medium-intensity interventions involved three to 24 phone sessions or one to eight in-person sessions. High-intensity interventions involved four to 20 in-person group sessions and were the only interventions to report sustained benefits beyond 12 months.

No high-intensity interventions and few medium-intensity interventions involved primary care clinicians as the providers of the intervention. Most interventions were delivered by health educators or nurses, counselors or psychologists, dietitians or nutritionists, or exercise instructors or physiologists.

In adults with a diastolic blood pressure of 80 to 89 mm Hg, high-intensity behavioral

interventions to reduce dietary sodium content were associated with a clinically significant reduction in blood pressure (decreases of 1.9 mm Hg in systolic blood pressure and 1.0 mm Hg in diastolic blood pressure) and subsequent cardiovascular events.³

OTHER APPROACHES TO PREVENTION

Of the counseling interventions reviewed by the USPSTF that were feasible in the primary care setting or referable, only small to moderate changes in behavior or intermediate health outcomes were demonstrated. Behavioral counseling may be more effective if delivered in the context of broader public health interventions that encourage healthy lifestyles.

Many public health resources addressing diet and physical activity may be useful resources for primary care clinicians. The U.S. Departments of Agriculture and Health and Human Services have jointly issued dietary guidelines for the general population.¹ These guidelines recommend a diet that includes various fruits, vegetables, whole grains, and fiber; is low in saturated fat, cholesterol, and sodium; and balances calories with physical activity to maintain a healthy weight. The 2008 Physical Activity Guidelines for Americans recommends that adults exercise for at least 150 minutes per week and include muscle-strengthening exercises at least twice per week.²

The Million Hearts campaign is a national private-public initiative sponsored by the U.S. Department of Health and Human Services that aims to decrease the number of heart attacks and strokes by 1 million over the next five years. It emphasizes the use of effective clinical preventive services combined with multifaceted policy interventions. More information is available at <http://millionhearts.hhs.gov>.

The Community Preventive Services Task Force recommends several community-based interventions to promote physical activity, including community-wide campaigns, social support interventions, school-based physical education, and several environmental and policy approaches. The recommendations are available at <http://www.thecommunityguide.org>.

RELATED USPSTF RECOMMENDATIONS

The USPSTF recommends intensive behavioral dietary counseling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease (grade B recommendation). It is in the process of updating this recommendation.

The USPSTF has recommendations addressing the most substantial causes of CVD. It recommends that adults 18 years or older be screened for hypertension. For select adults, the USPSTF recommends screening for lipid disorders and the use of aspirin to prevent CVD. The USPSTF recommends that clinicians screen all adults for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss for adults who are obese. Other recommendations on reducing the risk of CVD are available on the USPSTF website at <http://www.uspreventiveservicestaskforce.org>.

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The "Other Considerations," "Discussion," "Update of Previous USPSTF Recommendation," and "Recommendations of Other Groups" sections of this recommendation statement are available at <http://www.uspreventiveservicestaskforce.org/uspstf/uspsphys.htm>.

The U.S. Preventive Services Task Force recommendations are independent of the U.S. government. They do not represent the views of the Agency for Healthcare Research and Quality, the U.S. Department of Health and Human Services, or the U.S. Public Health Service.

REFERENCES

1. U.S. Department of Health and Human Services and U.S. Department of Agriculture. Dietary Guidelines for Americans, 2010. 7th ed. Washington, DC: U.S. Government Printing Office; 2010.
2. U.S. Department of Health and Human Services; 2008. 2008 Physical Activity Guidelines for Americans. ODPHP publication no. U0036. Washington, DC: U.S. Department of Health and Human Services; 2008.
3. Lin JS, O'Connor E, Whitlock EP, Beil TL. Behavioral counseling to promote physical activity and a healthful diet to prevent cardiovascular disease in adults: a systematic review for the U.S. Preventive Services Task Force. *Ann Intern Med*. 2010;153(11):736-750.
4. Lin JS, O'Connor E, Whitlock EP, et al. Behavioral Counseling to Promote Physical Activity and a Healthful Diet to Prevent Cardiovascular Disease in Adults: Update of the Evidence for the U.S. Preventive Services Task Force. Evidence synthesis no. 79. AHRQ publication no. 11-05149-EF-1. Rockville, Md.: Agency for Healthcare Research and Quality; 2010. ■