

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

As published by the U.S. Preventive Services Task Force.

This summary is one in a series excerpted from the Recommendation Statements released by the 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/>.

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

Summary of Recommendation and Evidence

The USPSTF recommends offering or referring adults who are overweight or obese and have additional cardiovascular disease (CVD) risk factors to intensive behavioral counseling interventions to promote a healthful diet and physical activity for CVD prevention (*Table 1*). **B recommendation.**

See the Clinical Considerations section for more information about CVD risk factors.

Rationale

IMPORTANCE

Cardiovascular disease, primarily in the forms of heart disease and stroke, is a leading cause of death in the United States.¹ Obesity is associated with increased CVD mortality.² Adults who adhere to national guidelines for a healthful diet³ and physical activity⁴ have lower cardiovascular morbidity and mortality than those who do not. All persons, regardless of CVD risk status, can accrue the health benefits of improved nutrition, healthy eating behaviors, and increased physical activity.⁵

BENEFITS OF BEHAVIORAL COUNSELING INTERVENTIONS

The USPSTF found adequate evidence that intensive behavioral counseling interventions have moderate benefits for CVD risk in overweight or obese adults who are at increased risk for CVD, including decreases in blood pressure, lipid and fasting glucose levels, and body mass index (BMI) and increases in levels of physical activity. The reduction in glucose levels was large enough to decrease the incidence of a diabetes diagnosis. The USPSTF

found inadequate direct evidence that intensive behavioral counseling interventions lead to decreases in mortality or CVD rates.

HARMS OF BEHAVIORAL COUNSELING INTERVENTIONS

The USPSTF found adequate evidence that the harms of behavioral counseling interventions are small to none. None of the dietary intervention studies explicitly reported adverse events. Studies of physical activity interventions reported mostly minor adverse events, and intense physical activity was rarely associated with cardiovascular events.

USPSTF ASSESSMENT

The USPSTF concludes with moderate certainty that intensive behavioral counseling interventions to promote a healthful diet and physical activity have a moderate net benefit in overweight or obese adults who are at increased risk for CVD.

Clinical Considerations

PATIENT POPULATION UNDER CONSIDERATION

This recommendation applies to adults aged 18 years or older in primary care settings who are overweight or obese and have known CVD risk factors (hypertension, dyslipidemia, impaired fasting glucose, or the metabolic syndrome). In the studies reviewed by the USPSTF, a substantial majority of participants had a BMI greater than 25 kg/m².

BEHAVIORAL COUNSELING INTERVENTIONS

Most studies evaluated interventions that combined counseling on a healthful diet and physical activity and were intensive, with

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

Population	Adults in primary care who are overweight or obese and have known cardiovascular risk factors
Recommendation	Offer or refer to intensive behavioral counseling interventions to promote a healthful diet and physical activity. Grade: B
Risk assessment	Well-established risk factors for cardiovascular disease (CVD) include obesity, hypertension, hyperlipidemia, diabetes, and tobacco use.
Behavioral counseling interventions	Intensive behavioral counseling interventions are effective in making small but important changes in health behavior outcomes (dietary intake and physical activity) and selected intermediate clinical outcomes (lipid levels, blood pressure, fasting glucose levels, diabetes incidence, and weight) after 12 to 24 months. Many types of intensive counseling interventions are effective. Such interventions focus on behavior change; include didactic education plus other components, such as audit and feedback, problem-solving skills, and individualized care plans; and are typically delivered by specially trained health professionals.
Balance of benefits and harms	The USPSTF concludes with moderate certainty that intensive behavioral counseling interventions to promote a healthful diet and physical activity have a moderate net benefit in adults who are overweight or obese and at increased risk for CVD.
Other relevant USPSTF recommendations	The USPSTF has a wide range of recommendations focusing on CVD prevention, including tobacco cessation, aspirin use, screening and counseling for obesity, and screening for lipid disorders, blood pressure, and diabetes. These recommendations are available on the USPSTF Web site (http://www.uspreventiveservicestaskforce.org/).

NOTE: For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, go to <http://www.uspreventiveservicestaskforce.org/>.

USPSTF = U.S. Preventive Services Task Force.

multiple contacts (which may have included individual or group counseling sessions) over extended periods. Interventions involved an average of 5 to 16 contacts over 9 to 12 months depending on their intensity.⁶ Most of the sessions were in-person, and many included additional telephone contacts. Interventions generally focused on behavior change, and all included didactic education plus additional support. Most included audit and feedback, problem-solving skills, and individualized care plans. Some trials also focused on medication adherence. Interventions were delivered by specially trained professionals, including dietitians or nutritionists, physiotherapists or exercise professionals, health educators, and psychologists.

Many types of intensive counseling interventions were effective. However, it was not clear how the magnitude of the effect was related to the format of the intervention (e.g., face-to-face, individual, group, or telephone), the person providing the counseling, the duration of the intervention, or the number of sessions because different combinations

of components were effective (see the Implementation section for more information on effective interventions). Because of the intensity and expertise required, most interventions were referred from primary care and delivered outside that setting.

OTHER APPROACHES TO PREVENTION

Tobacco use continues to be one of the most important risk factors for CVD. Helping patients with tobacco cessation is a critical component of CVD prevention. The USPSTF recommends clinicians ask all adults about tobacco use and provide tobacco cessation interventions to those who use such products.⁷ The U.S. Public Health Service has published guidelines to further help clinicians.⁸

Multifaceted approaches with linkages between primary care practices and community resources could increase the effectiveness of interventions.⁹ Effective interactions between health care and community interventions, specifically public health and health policy interventions (such as healthy community design

and built environment), can support and enhance the effectiveness of clinical interventions (more information is available at <http://www.cdc.gov/healthyplaces>). 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 environmental and policy approaches. It also recommends programs promoting diet and physical activity for persons who are at increased risk for type 2 diabetes on the basis of strong evidence of the effectiveness of these programs in reducing the incidence of new-onset diabetes. These recommendations are available at <http://www.thecommunityguide.org>.

The Million Hearts initiative (<http://millionhearts.hhs.gov>) aims to decrease the number of heart attacks and strokes by 1 million by 2017. It emphasizes the use of effective clinical preventive services combined with multifaceted community prevention strategies.

In 2010, the U.S. Department of Agriculture and the U.S. Department of Health and Human Services jointly issued the “Dietary Guidelines for Americans.”³ The latter also issued complementary physical activity guidelines.⁴

USEFUL RESOURCES

The USPSTF has a wide range of recommendations focusing on CVD prevention. The current recommendation focuses on behavioral counseling that encourages healthy eating and physical activity behaviors to improve cardiovascular health. It does not address weight-loss programs. The USPSTF recommends that clinicians selectively initiate behavioral counseling to promote a healthful diet and physical activity in patients who are not obese and not at increased cardiovascular risk. The USPSTF does not address behavioral counseling in patients with a BMI less than 25 kg/m² who are at increased risk for CVD. However, for patients with a BMI of 30 kg/m² or greater, the USPSTF recommends screening these patients for obesity and offering or referring them to intensive, multicomponent behavioral counseling for weight loss.

In another recommendation, the USPSTF

recommends screening for lipid disorders in adults according to age and risk factors. It also recommends screening for blood pressure in adults, screening for diabetes in patients with elevated blood pressure, and aspirin use when appropriate. These recommendations are available at <http://www.uspreventiveservicestaskforce.org>.

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The “Other Considerations,” “Discussion,” “Update of Previous USPSTF Recommendation,” and “Recommendations of Others” sections of this recommendation statement are available at <http://www.uspreventiveservicestaskforce.org/Page/Topic/recommendation-summary/healthy-diet-and-physical-activity-counseling-adults-with-high-risk-of-cvd>.

The USPSTF 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.

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