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

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.uspreventive servicestaskforce.org/uspstf11/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 diet\(^1\) and physical activity\(^2\) 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.
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.uspreventiveservices taskforce.org.


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/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**