Behavioral Counseling to Promote a Healthful Diet and Physical Activity for Cardiovascular Disease Prevention in Adults Without 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/.

This series is coordinated by Sumi Sexton, MD, Associate Deputy Editor.


Summary of Recommendation and Evidence

The USPSTF recommends that primary care professionals individualize the decision to offer or refer adults without obesity who do not have hypertension, dyslipidemia, abnormal blood glucose levels, or diabetes to behavioral counseling to promote a healthful diet and physical activity (Table 1). Existing evidence indicates a positive but small benefit of behavioral counseling for the prevention of cardiovascular disease (CVD) in this population. Persons who are interested and ready to make behavioral changes may be most likely to benefit from behavioral counseling. C recommendation.

See the “Useful Resources” section for more information on how this recommendation fits into the USPSTF’s suite of recommendations on CVD prevention.

Rationale

IMPORTANCE

CVD, which includes myocardial infarction and stroke, is the leading cause of death in the United States.1 Adults who adhere to national guidelines for a healthful diet and physical activity have lower rates of cardiovascular morbidity and mortality than those who do not. All persons, regardless of their CVD risk status, can gain health benefits from healthy eating behaviors and appropriate physical activity.2

BENEFITS OF BEHAVIORAL COUNSELING INTERVENTIONS

The USPSTF found adequate evidence that behavioral counseling interventions provide at least a small benefit for reduction of CVD risk in adults without obesity who do not have the common risk factors for CVD (hypertension, dyslipidemia, abnormal blood glucose levels, or diabetes). Behavioral counseling interventions have been found to improve healthful behaviors, including beneficial effects on fruit and vegetable consumption, total daily caloric intake, salt intake, and physical activity levels. Behavioral counseling interventions led to improvements in systolic and diastolic blood pressure levels, low-density lipoprotein cholesterol levels, body mass index (BMI), and waist circumference that persisted over 6 to 12 months. The USPSTF found inadequate direct evidence that behavioral counseling interventions lead to a reduction 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. Among 14 trials of behavioral interventions that reported on adverse events, none reported any serious adverse events.

USPSTF ASSESSMENT

The USPSTF concludes with moderate certainty that behavioral counseling interventions to promote a healthful diet and physical activity have a small net benefit in adults without obesity who do not have specific common risk factors for CVD (hypertension, dyslipidemia, abnormal blood glucose levels, and diabetes).

Although the correlation among healthful diet, physical activity, and CVD incidence is strong, existing evidence indicates that the health benefit of behavioral counseling to
promote a healthful diet and physical activity among adults without obesity who do not have these specific CVD risk factors is small.

Clinical Considerations

PATIENT POPULATION UNDER CONSIDERATION

This recommendation applies to adults 18 years or older who are of normal weight or overweight, with a BMI between 18.5 and 30 (calculated as weight in kilograms divided by the square of height in meters). It does not apply to persons who have known CVD risk factors (hypertension, dyslipidemia, abnormal blood glucose levels, or diabetes) or persons with obesity or who are underweight.

BEHAVIORAL COUNSELING INTERVENTIONS

The USPSTF reviewed 88 trials with more than 120 distinct interventions focused on promoting a healthful diet, physical activity, or both. Dietary messages documented in the interventions typically focused on general heart-healthy eating patterns (increased consumption of fruits, vegetables, fiber, and whole grains; decreased consumption of salt, fat, and red and processed meats). Physical activity messages used in the reviewed interventions emphasized gradually increasing aerobic activities to recommended levels, with many studies emphasizing walking.

Interventions categorized as low intensity included print- or web-based materials with tailored feedback and tools for behavior change, ranging from 1-time mailings to monthly mailings over 3 years. Medium- and high-intensity interventions commonly included face-to-face individual or group counseling or both, with telephone, email, and text message follow-up.

The USPSTF concludes with moderate certainty that behavioral counseling interventions to promote a healthful diet and physical activity have a small net benefit in adults without obesity who do not have specific common risk factors for CVD (hypertension, dyslipidemia, abnormal blood glucose levels, and diabetes).

The USPSTF has recommendations on several aspects of CVD prevention in adults with and without common risk factors, including behavioral counseling interventions to promote a healthful diet and physical activity for CVD prevention in adults with cardiovascular risk factors, screening for and management of obesity in adults, screening for abnormal blood glucose levels and type 2 diabetes mellitus, screening for high blood pressure, use of statin medications in persons at risk for CVD, screening and counseling for tobacco smoking cessation, and aspirin use for CVD primary prevention. These recommendations are available on the USPSTF website (https://www.uspreventiveservicestaskforce.org).

### Table 1. Behavioral Counseling to Promote a Healthful Diet and Physical Activity for CVD Prevention in Adults Without Cardiovascular Risk Factors: Clinical Summary of the USPSTF Recommendation

<table>
<thead>
<tr>
<th>Population</th>
<th>Adults without obesity who do not have known CVD risk factors</th>
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<tbody>
<tr>
<td>Recommendation</td>
<td>Individualize the decision to offer or refer adults to behavioral counseling to promote a healthful diet and physical activity. Grade: C</td>
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<tr>
<td>Risk assessment</td>
<td>Adults who adhere to national guidelines for a healthful diet and physical activity have lower rates of cardiovascular morbidity and mortality than those who do not. All persons, regardless of their CVD risk status, can gain health benefits from healthy eating behaviors and appropriate physical activity.</td>
</tr>
<tr>
<td>Interventions</td>
<td>Dietary counseling interventions typically focused on general heart-healthy eating patterns (increased consumption of fruits, vegetables, fiber, and whole grains; decreased consumption of salt, fat, and red and processed meats). Physical activity interventions emphasized gradually increasing aerobic activities to recommended levels, with many studies emphasizing walking. Interventions categorized as low intensity included print- or web-based materials with tailored feedback and tools for behavior change, ranging from 1-time mailings to monthly mailings over 3 years. Medium- and high-intensity interventions commonly included face-to-face individual or group counseling or both, with telephone, email, and text message follow-up.</td>
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<tr>
<td>Balance of benefits and harms</td>
<td>The USPSTF concludes with moderate certainty that behavioral counseling interventions to promote a healthful diet and physical activity have a small net benefit in adults without obesity who do not have specific common risk factors for CVD (hypertension, dyslipidemia, abnormal blood glucose levels, and diabetes).</td>
</tr>
<tr>
<td>Other relevant USPSTF recommendations</td>
<td>The USPSTF has recommendations on several aspects of CVD prevention in adults with and without common risk factors, including behavioral counseling interventions to promote a healthful diet and physical activity for CVD prevention in adults with cardiovascular risk factors, screening for and management of obesity in adults, screening for abnormal blood glucose levels and type 2 diabetes mellitus, screening for high blood pressure, use of statin medications in persons at risk for CVD, screening and counseling for tobacco smoking cessation, and aspirin use for CVD primary prevention. These recommendations are available on the USPSTF website (<a href="https://www.uspreventiveservicestaskforce.org">https://www.uspreventiveservicestaskforce.org</a>).</td>
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**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.

CVD = cardiovascular disease; USPSTF = U.S. Preventive Services Task Force.
The USPSTF has evaluated the evidence on several aspects of CVD prevention in adults with and without common risk factors, including behavioral counseling interventions to promote a healthful diet and physical activity for CVD prevention in adults with cardiovascular risk factors, screening for and management of obesity in adults, and screening for abnormal blood glucose levels and type 2 diabetes mellitus.

In other recommendation statements, the USPSTF had recommended screening for high blood pressure, use of statin medications in persons at risk for CVD, screening and counseling for tobacco smoking cessation, and aspirin use in certain persons for CVD primary prevention.


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.

REFERENCES