

# Putting Prevention into Practice

## *An Evidence-Based Approach*

### Healthy Diet and Physical Activity for Cardiovascular Disease Prevention in Adults with Cardiovascular Risk Factors

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#### Case Study

A 36-year-old patient, L.B., with a history of hypertension presents for a wellness visit. The patient's mother had a stroke at 65 years of age and the patient's older brother recently had a heart attack. L.B. has an estimated 10-year cardiovascular risk of 6%, and L.B.'s body mass index is 29 kg per m<sup>2</sup>. The rest of the patient's history and physical examination is unremarkable.

#### Case Study Questions

1. According to the U.S. Preventive Services Task Force (USPSTF), which one of the following is the most appropriate behavioral counseling approach to promote a healthy diet and physical activity to prevent cardiovascular disease?

- ☐ A. Providing educational materials on healthy eating and ways to improve physical activity level.
- ☐ B. No counseling should be provided because there is little to no net benefit of counseling for this patient.
- ☐ C. Providing a one-time, in-office counseling visit on healthy eating and physical activity, with motivational interviewing techniques and goal setting.
- ☐ D. Providing intensive behavioral counseling on healthy eating and physical activity, with multiple contacts over an extended period.

2. The USPSTF recommends offering behavioral counseling for cardiovascular disease prevention to patients with which one of the following cardiovascular risk factors?

- ☐ A. Abnormal blood glucose level.
- ☐ B. Obesity.
- ☐ C. Smoking.
- ☐ D. Estimated 10-year cardiovascular risk of 7.5% or greater.

3. According to the USPSTF, which of the following statements about benefits and harms of behavioral counseling to promote a healthy diet and physical activity are correct?

- ☐ A. There is inadequate evidence that counseling interventions improve blood pressure.
- ☐ B. There is adequate evidence that counseling interventions improve healthy eating habits.
- ☐ C. There is adequate evidence that counseling interventions reduce overall cardiovascular disease events.
- ☐ D. There is inadequate evidence to determine the harms of counseling interventions.

Answers appear on the following page.

See related U.S. Preventive Services Task Force Recommendation Statement at <https://www.aafp.org/afp/2021/0315/p366.html>.

This PPI quiz is based on the recommendations of the USPSTF. More information is available in the USPSTF Recommendation Statement and supporting documents on the USPSTF website (<https://www.uspreventiveservicestaskforce.org>). The practice recommendations in this activity are available at <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/healthy-diet-and-physical-activity-counseling-adults-with-high-risk-of-cvd>.

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A collection of Putting Prevention into Practice published in *AFP* is available at <https://www.aafp.org/afp/ppip>.

**CME** This clinical content conforms to AAFP criteria for CME. See CME Quiz on page 338.

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## PUTTING PREVENTION INTO PRACTICE

### Answers

**1. The correct answer is D.** The USPSTF recommends offering adults with cardiovascular risk factors behavioral counseling interventions to promote a healthy diet and physical activity.<sup>1</sup> Interventions that have been shown to reduce cardiovascular risk include a combination of counseling on healthy diet and physical activity that incorporates behavioral change techniques and can include individual or group counseling sessions. Interventions typically include multiple contacts over an extended period (with a median of 12 contacts and six hours of contact over 12 months).<sup>2</sup>

**2. The correct answer is D.** The USPSTF recommends offering behavioral counseling interventions to adults at increased risk of cardiovascular disease, defined as those with hypertension, dyslipidemia, or multiple risk factors such as metabolic syndrome or an estimated 10-year cardiovascular disease risk of 7.5% or greater. This recommendation does not apply to adults with other cardiovascular risk factors such as diabetes mellitus, abnormal blood glucose levels, obesity, or smoking. Guidance on reducing cardiovascular disease risk in these populations (as well as individuals with other modifiable risk factors) are addressed in separate USPSTF recommendations.

**3. The correct answers are B, C, and D.** The USPSTF found adequate evidence that counseling interventions reduce overall cardiovascular disease events and improve healthy eating habits. It found convincing evidence that counseling interventions improve blood pressure, lipid and fasting blood glucose levels, and body weight. The USPSTF found inadequate evidence to determine the harms of counseling interventions, although based on the nature of the interventions (counseling or physical activity), the harms are thought to be no greater than small in magnitude.

**The views** expressed in this work are those of the authors and do not reflect the official policy or position of Johns Hopkins Bloomberg School of Public Health or the U.S. government.

### References

1. Krist AH, Davidson KW, Mangione CM, et al. Behavioral counseling interventions to promote a healthy diet and physical activity for cardiovascular disease prevention in adults with cardiovascular risk factors: US Preventive Services Task Force recommendation statement. *JAMA*. 2020;324(20):2069-2075.
2. O'Connor EA, Evans CV, Rushkin MC, et al. Behavioral counseling to promote a healthy diet and physical activity for cardiovascular disease prevention in adults with cardiovascular risk factors: updated evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. 2020;324(20):2076-2094. ■



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