Use of Aspirin to Prevent Cardiovascular Disease

The US Preventive Services Task Force (USPSTF) has recently published recommendations about the use of aspirin to prevent cardiovascular disease.

What Is Cardiovascular Disease?
Cardiovascular disease involves the buildup of plaque, which causes blockages inside important blood vessels in the body, including arteries of the heart (coronary heart disease), brain (cerebrovascular disease), and legs (peripheral artery disease). Cardiovascular disease can cause heart attacks and strokes, and it is the leading cause of death in the US.

What Is Aspirin?
Aspirin blocks the action of platelets, blood cells that clump together to form clots in the blood. Although aspirin can be useful to prevent clotting (which can lead to heart attacks and strokes), it can also cause the serious side effect of bleeding.

Aspirin can be used for either primary or secondary prevention of cardiovascular disease. Primary prevention refers to use of aspirin in people without known cardiovascular disease to prevent its development. Secondary prevention refers to aspirin use in individuals who have already had a heart attack, a stroke, placement of a coronary artery stent, or coronary artery bypass graft surgery to prevent another such event. This USPSTF recommendation statement is focused on primary prevention.

What is the Patient Population Under Consideration for Use of Aspirin to Prevent Cardiovascular Disease?
This recommendation applies to adults aged 40 years or older without known cardiovascular disease who are not at increased risk for bleeding (eg, no history of gastrointestinal ulcers, recent bleeding, or use of other medications that increase bleeding risk).

What Are the Potential Benefits and Harms of Using Aspirin to Prevent Cardiovascular Disease?
There is some evidence that low-dose aspirin has a small benefit in reducing the risk of nonfatal heart attack and stroke in adults aged 40 years or older who have no history of cardiovascular disease but are at increased cardiovascular risk. In these patients, the magnitude of benefit of aspirin use rises with increasing cardiovascular risk, and the lifetime benefit is greater when aspirin is initiated at a younger age.

However, daily aspirin use has potential harms. There is evidence that aspirin increases the risk of gastrointestinal tract bleeding, intracranial bleeding, and hemorrhagic stroke. The risk of these adverse events is highest in adults older than 60 years.

How Strong Is the Recommendation to Use Aspirin to Prevent Cardiovascular Disease?
The USPSTF concludes with moderate certainty that there is a small net benefit with use of aspirin for primary prevention of cardiovascular disease in adults aged 40 to 59 years who have a 10% or greater 10-year cardiovascular disease risk. For adults aged 60 years or older, the USPSTF concludes with moderate certainty that aspirin use for primary prevention of cardiovascular disease has no net benefit (benefit does not outweigh harm).

FOR MORE INFORMATION
US Preventive Services Task Force
www.uspreventiveservicestaskforce.org/uspstf/topic_search_results?topic_status=P

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