



Confusion over Aspirin Use for the Primary Prevention of Cardiovascular Disease

Guidelines for the **primary prevention** of cardiovascular disease were released in 2019 by the American College of Cardiology (ACC) and American Heart Association (AHA). (1) These guidelines recommend low-dose aspirin (75-100 mg) in middle aged adults (ages 40 to 70) who are at **higher risk** of a first cardiovascular event, but the guidelines caution that low-dose aspirin should not be routinely recommended for adults >70 years of age due to an increased risk of bleeding.

The guidelines have caused a fair amount of confusion among health care providers, particularly because individuals over 70 are at higher risks of cardiovascular events, and therefore potentially stand to derive greater benefit from aspirin.

It is clear that aspirin should not be used indiscriminately, and that use of aspirin for primary prevention is a delicate balance between avoidance of ischemic events and avoidance of bleeding events. That being said, evidence supports that aspirin has an important role for prevention of cardiovascular disease in select patient populations.

In order to offer guidance on primary prevention aspirin use, we propose the following table (which is consistent with the 2019 ACC/AHA primary prevention guidelines) to assess the use of aspirin in all adults 40 years of age and older.

Considerations for patients not under current treatment with low dose aspirin		
Consider Initiation	Discuss benefits and harms	Avoid initiation
<ul style="list-style-type: none"> High CVD risk High colorectal cancer risk Lower bleeding risk 	<ul style="list-style-type: none"> Intermediate CVD risk 	<ul style="list-style-type: none"> Lower CVD risk Higher bleeding risk

Considerations for patients currently under treatment with low dose aspirin		
Consider Continuation	Discuss benefits and harms	Consider discontinuation
<ul style="list-style-type: none"> High CVD risk High colorectal cancer risk Longer duration of past aspirin use (> 5 years) 	<ul style="list-style-type: none"> Intermediate CVD risk 	<ul style="list-style-type: none"> Lower CVD risk Shorter duration of past aspirin use (< 5 years) Higher bleeding risk

CVD risk is based on 10 year estimated ASCVD risk. (2) High CVD risk is commonly considered > 15%; Intermediate CVD risk is commonly considered to be 7.5 - 15%; Low CVD risk is commonly considered to be < 7.5%. High colorectal cancer risk has not been defined by guidelines but can be considered individually based upon colorectal cancer risk factors such as family history, prior colorectal cancer or history of adenomatous polyp. Higher bleeding risk consists of any one of the following: a personal history of major bleeding or the concomitant use of anticoagulants, corticosteroids (at doses of 15mg of prednisone equivalent or higher) or NSAIDs (on 4 or more days of the week).

References:

1. 2019 ACC/AHA Guideline on the Primary Prevention of Cardiovascular Disease. Arnett et al. J Am Coll Cardiol. 2019 Sep, 75 (10) e177-e232.
2. <http://www.cvriskcalculator.com>