

October 12, 2021 – Who should take a baby aspirin?

Much attention today in the public media about who should take a baby aspirin (81mg) for CV protection. The question is: Does the benefit outweigh the risk? Aspirin is a serious and dangerous medication and must be prescribed with great caution. The most significant risk with baby aspirin is bleeding. The main benefit of baby aspirin is to prevent a deadly clot from forming in the case of an inflammatory plaque rupture.

The US Preventative Services Task Force (USPSTF) published an update today to the recommendations of who should take baby aspirin for CV benefit. A Risk Model (FRS) is utilized to determine high or low risk. Unfortunately, many people with a low risk factor burden may have silent, deadly plaque. This 'calculated risk score' only looks at a few factors – age, gender, systolic BP, Good Cholesterol, and Smoking status.

Having atherosclerosis (plaque) is a prerequisite for having a CV event. How can it be determined who needs aspirin if the screening tool doesn't assess for plaque?

The USPSTF is using the current definition of cardiovascular disease risk (CVD risk) which is a binary system – there are two categories:

1. **Primary Prevention:** You have NOT had a CV event (Heart Attack or Ischemic Stroke). This is the category that is being disputed on who should take baby aspirin.
2. **Secondary Prevention:** You HAVE had a CV event (Heart Attack or Ischemic Stroke) – Baby Aspirin (81mg) use in this category is not being disputed.

The question becomes...how many people in the traditional Primary Prevention category are walking around with silent plaque in the artery wall (subclinical atherosclerosis) and don't know it?

The BaleDoneen Method has published a Ternary risk assessment model that uses the identification of plaque (atherosclerosis) to determine specific treatments:

If an individual was scanned and found to have plaque hiding in the artery wall, they are now classified as secondary prevention and aspirin therapy is necessary to prevent a CV event. Common tools for scanning to look for silent plaque include a Coronary Artery Calcium Scan (CACs) and a Carotid Intima Media Thickness Test (cIMT).

Primary Prevention – No plaque is present = NO BABY ASPIRIN. Goal: Prevent plaque development.

Secondary Prevention – Plaque is present (found with scanning) = YES ASPIRIN. Goal: Prevent CV Event.

Tertiary Prevention – Plaque has caused a CV event = YES ASPIRIN. Goal: Prevent a repeat CV Event.

Doneen, A., Bale, B, Leimgruber, P., Vigerust, D. (2020). "Cardiovascular Prevention: Migrating from a binary to a ternary classification. Frontiers in CV Medicine.

The BaleDoneen Method is a disease/inflammatory approach to individual assessment assigning genetically guided treatments which allows for a precision based and safe treatment plan. It is imperative that each individual has the opportunity to live a life free of CV events, and this includes understanding the concept on whether we are treating risk (no plaque) or disease (atherosclerosis).


Yours In Health – Dr. Doneen & Dr. Bale

October 12, 2021 USPSTF Latest recommendations on baby aspirin


Rationale	Assessment
Benefits of Aspirin Use	Adequate evidence that low-dose aspirin has a small benefit to reduce risk for cardiovascular events (nonfatal myocardial infarction and stroke) in adults age 40 years or older who have no history of CVD but are at increased CVD risk. Evidence shows that the magnitude of benefit increases with increasing 10-year CVD risk, and that the magnitude of the lifetime benefits are greater when aspirin is initiated at a younger age.
Harms of Aspirin Use	Adequate evidence that aspirin use in adults increases the risk for gastrointestinal bleeding, intracranial bleeding, and hemorrhagic stroke. The USPSTF determined that the magnitude of the harms are small overall but increase in older age groups, particularly in adults older than age 60 years.
USPSTF Assessment	The USPSTF concludes with moderate certainty that aspirin use for the primary prevention of CVD events in adults ages 40 to 59 years who have a 10% or greater 10-year CVD risk has a small net benefit. The USPSTF concludes with moderate certainty that initiating aspirin use for the primary prevention of CVD events in adults age 60 years or older has no net benefit.

Abbreviation: CVD=cardiovascular disease; USPSTF=U.S. Preventive Services Task Force.

<https://www.uspreventiveservicestaskforce.org/uspstf/draft-recommendation/aspirin-use-to-prevent-cardiovascular-disease-preventive-medication>



HYPOTHESIS AND THEORY
published: 22 May 2020
doi: 10.3389/fcvm.2020.00092



Cardiovascular Prevention: Migrating From a Binary to a Ternary Classification

Amy Lynn Doneen^{1}, Bradley Field Bale¹, David John Vigerust² and Pierre P. Leimgruber²*

¹ College of Medicine, Washington State University, Spokane, WA, United States, ² School of Medicine, Vanderbilt University, Nashville, TN, United States, ² School of Medicine, University of Washington, Seattle, WA, United States

Migrating from a binary approach to risk assessment to a ternary model of disease identification allows for individualized, optimal disease management. Redefining the disease/inflammatory approach has been proven to identify, stabilize, and regress atherosclerosis while adding understanding to the progression of vascular disease. Our previously published results show the beneficial effect of comprehensive, evidence-based management on subclinical atherosclerosis and vulnerable plaque. We argue that this approach does not mitigate the value of utilizing standard risk factor identification, but rather augments it for the benefit of the individual patient.

OPEN ACCESS

Keywords: cardiovascular disease (CVD), plaque, atherosclerosis, inflammation, prevention

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7256212/>