



How Cleerly Outperforms Coronary Artery Calcium Scoring

versus
Calcium Scoring

Cleerly allows for the identification and quantification of all forms of plaque. Several peer-reviewed papers, including ICONIC,¹ PROMISE,² and SCOT-HEART,³ have confirmed that accumulation of plaque within the arteries is the strongest predictor of a heart attack.

CCTA + Cleerly

Finds the High-Risk Patients that Calcium Scoring Misses

The coronary artery calcium (CAC) scan can detect and quantify atherosclerosis and is valuable in informing treatment decisions in asymptomatic adults. However, it cannot detect and quantify low-density, non-calcified plaque, which is more likely than hardened and calcified plaque to rupture and cause a blood clot to form.⁴ Simply put, a CAC score of zero does not exclude the presence of high-risk plaque.⁵

Cleerly's model of personalized cardiovascular care leverages our AI-enabled analysis of coronary computed tomography angiography (CCTA) images to identify, characterize, and quantify plaque buildup. Several studies have concluded that CCTA shows coronary atherosclerosis in 41%⁶ to 53%⁷ of patients with a CAC score of zero. The Western Denmark Health Study further found that 31% of major adverse cardiac events occur in patients with a CAC score of zero.⁸

Help Physicians Prevent Heart Attacks – and Costly Hospitalizations

The healthcare system misses more than half of patients who appear to be the picture of health but suffer a heart attack because they have a buildup of non-calcified plaque that a traditional CAC scan misses.⁹ Cleerly identifies patients at a high risk of coronary artery disease sooner than the traditional CAC scan. This can help physicians prevent heart attacks – and reduce the number of preventable but costly hospitalizations and readmissions that healthcare organizations experience every year.

¹Coronary Atherosclerotic Precursors of Acute Coronary Syndromes. *Journal of the American College of Cardiology*. June 5, 2018.

²Prognostic Value of Coronary CTA in Stable Chest Pain: CAD-RADS, CAC, and Cardiovascular Events in PROMISE. *Journal of the American College of Cardiology*. July 13, 2020.

³SCOT-HEART Trial: Reshuffling Our Approach to Stable Ischemic Heart Disease. *British Journal of Radiology*. September 1, 2020.

⁴The Fallacy of the Power of Zero. *Journal of the American College of Cardiology: Cardiovascular Imaging*. June 2022.

⁵The Swedish CARDioPulmonary BioImage Study: objectives and design. *Journal of Internal Medicine*. December 2015.

⁶The Fallacy of the Power of Zero. *JACC: Cardiovascular Imaging*. June 2022.

⁷The Western Denmark Heart Registry: Its Influence on Cardiovascular Patient Care. *Journal of the American College of Cardiology*. March 20, 2018.

⁸The Western Denmark Health Registry. *JACC*. March 20, 2018.

⁹Preventing Myocardial Infarction in the Young Adult in the First Place. *Journal of the American College of Cardiology*. May 2003.