



CENTRA MEDICAL GROUP

Stroobants Cardiovascular Center

Coronary Artery Calcium

- Highly specific disease marker of Coronary Artery Disease (CAD) (beyond risk “factor”)
- Strong quantitative correlation between coronary calcium score (CACs) and plaque burden
- Provides independent and incremental information over traditional risk factors in predicting cardiac events
- Identifies high risk patients in need of aggressive preventive therapy
- Prevalence increases with age

The Agatston calcium score is a linear scale with four calcium score categories:

| | |
|---------|----------|
| 0 | None |
| 1–99 | Mild |
| 100–400 | Moderate |
| >400 | Severe |

- * Calcium score correlates directly with risk of events and likelihood of obstructive CAD*

| Calcium Score | Relative Risk For Cardiovascular Events |
|---------------|--------------------------------------------|
| 0-10 | 1 |
| 11-100 | 1.9 |
| 101-400 | 4.3 |
| 401-1000 | 7.2 |
| >1000 | 10.8 |

CAS = 0 – 0.4% event rate over five to seven years

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ACCF/AHA Clinical Expert Consensus Document

- CAC scoring has a *high level of quality evidence* for risk stratifying *asymptomatic patients with intermediate Framingham score*
- CAC scoring predicts CV death or MI at three to five years
- CAC scoring is *independently predictive* of outcome over and above risk factors
- Obtaining CAC in low and high risk groups is not helpful, but is useful in intermediate risk.

Clinical Usefulness Of Coronary Artery Calcium Score

- *Using a calcium score to screen patients with moderate (intermediate) Framingham risk*
 - ▶ Positive CAC scans indicate incremental risk
 - ▶ Alters therapeutic goal (LDL, BP, etc.)
- Track progression of atherosclerosis non-invasively
- Improve compliance (adherence)

How To Obtain A Coronary Artery Calcium Score

There are two ways to schedule:

- Often calcium scoring is not covered by payers. Your patients can access our out-of-pocket discount of \$99 by first being seen by our registered nurse educator in Lynchburg for a HeartAware screening. To schedule, call 434.200.2273.
- If you wish for your patient to go directly to radiology instead of being screened, you can schedule the calcium score test directly with radiology by calling **Centra Radiology at 434.200.5500**. Scans can be done at Centra Lynchburg General, Centra Virginia Baptist, Centra Bedford Memorial, and Centra Southside Community hospitals, and Centra Gretna Medical Center.

All patients with a CAC score of >100 or >75th percentile should be referred for a cardiovascular evaluation by calling 434. 200.5252. Please call Thomas Meyer, MD, at 434.841.7494 with any questions.