

Calcium Score CT

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Contact: (866) 761-4200, Option 1

In accordance with the ALARA principle, TRA policies and protocols promote the utilization of radiation dose reduction techniques for all CT examinations. For scanner/protocol combinations that allow for the use of automated exposure control and/or iterative reconstruction algorithms while maintaining diagnostic image quality, those techniques can be employed when appropriate. For examinations that require manual or fixed mA/kV settings as a result of individual patient or scanner/protocol specific factors, technologists are empowered and encouraged to adjust mA, kV or other scan parameters based on patient size (including such variables as height, weight, body mass index and/or lateral width) with the goals of reducing radiation dose and maintaining diagnostic image quality.

If any patient at a TRA outpatient facility requires CT re-imaging, obtain radiologist advice prior to proceeding with the exam.

Indication: Screening exam for hyperlipidemia, family history, hypertension, etc. Please note, this exam is NOT for patients having coronary artery disease symptoms (chest pain / chest pressure, SOB, etc.). If such history is provided, please contact radiologist to protocol.

Important Note:

If the patient is **currently** having chest pain/chest pressure/shortness of breath out of the ordinary for the patient on day of exam please call a radiologist as they may be having a heart attack or myocardial ischemia and change to protocol or ED referral may be needed.

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Patient Position: Supine

Prep: NO medications typically, if HR is > 100 or very irregular, contact Rad

Scan Range (CC Z-AXIS):

Carina through bottom of heart

IV Contrast:

- None

Acquisitions:

One acquisition: EKG gated Non contrast

- Breathing Instructions: End Inspiration (cardiac / hyperventilation)
- EKG Gating: Prospective (target of 300ms or 75% R-R interval depending on scanner)

- Acquisition axial slice thickness: 1.2 – 1.5mm
- kV: 120
- Scan direction: Craniocaudal
- If significant motion artifact, contact Rad to see if additional acquisition is necessary

Series + Reformats:

****Make sure study is automatically sent to TeraRecon****

- **Non-contrast** (All recons are soft tissue kernel / filter)
- Axial 3 mm with 1.5mm increment ST kernel, FOV coned down to heart used for scoring
- Axial 2-2.5 mm ST kernel, full FOV
- Coronal 2 mm ST kernel, full FOV
- Sagittal 2 mm ST kernel, full FOV
- Axial 10 x 2 mm MIP ST kernel, full FOV

Post-processing Notes:

- If at a site that does not have MS Word available for the Tera Recon Ca score report, screen capture the Tera Recon Ca score table and push that to PACS.
- Make sure to include in the tech notes if patient is Caucasian, Hispanic, Asian, or African American.
- Make sure the MESA database is being utilized on Tera Recon (when looking at the settings/Ca score, database selected should be MESA, NOT Huff)
- If there is a large calcification that spans multiple arteries, and does not allow you to break it up when scoring, just include as one artery and notify Rad reading cardiac CT exams that day.