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2025 CT Heart with Coronary Artery Calcium Scoring

Cardiology/Diagnostic Imaging

CTA-CaScoring-HH

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Computed Tomography (CT) Heart with Coronary Artery Calcium (CAC) Scoring

NCD 220.1
See also, **NCD 220.1**: Computed Tomography at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

CT Heart with CAC Scoring Guideline

Computed tomography (CT) heart with coronary artery calcium (CAC) scoring is considered medically appropriate when the documentation demonstrates **ANY** of the following:

1. 10-year atherosclerotic cardiovascular disease (ASCVD) risk estimate is less than 5% and **ALL** of the following: (*__NOTE__: *Use ASCVD Risk Estimator Plus to determine risk level:* https://tools.acc.org/ascvd-risk-estimator-plus/#!/calculate/estimate/)
    a. Age is over 40 years old.
    b. Asymptomatic
    c. ASCVD risk is elevated due to **ANY** of the following:
        i. Ankle brachial index (ABI) is less than 0.9.
        ii. Apolipoprotein B is more than 130mg/dl.
        iii. Chronic kidney disease (eg, estimated glomerular filtration rate [eGFR] 15 to 59 mL/min/1.73 m^2)
        iv. Ethnicity (Caucasian or south Asian ancestry)
        v. Female-specific conditions (eg, pre-eclampsia, premature menopause)
        vi. High-sensitivity c-reactive protein (hsCRP) is more than 2 mg/L.
        vii. Inflammatory diseases (eg, psoriasis, rheumatoid arthritis)
        viii. Lipoprotein (a) level is more than 50 mg/dl.
        ix. Low-density lipoprotein cholesterol (LDL-C) is persistently more than 160 mg/dl.
        x. Metabolic syndrome (eg, diabetes, hypertension)
        xi. Non-high-density lipoprotein cholesterol (Non-HDL-C) is persistently more than 190 mg/dl.

xii. Premature ASCVD family history (Males age is less than 55 years, females age is less than 65 years)

xiii. Triglycerides are persistently more than 175 mg/dl.

d. Low-density lipoprotein cholesterol (LDL-C) level of 70 mg/dL to 189 mg/dL

References: [2] [5] [9] [6] [10]

2. 10-year atherosclerotic cardiovascular disease (ASCVD) risk estimate is intermediate (5% to 19.9%) and **ALL** of the following: (*__NOTE__: *Use ASCVD Risk Estimator Plus to determine risk level:* https://tools.acc.org/ascvd-risk-estimator-plus/#!/calculate/estimate/)

   a. Age is 40 years old to 75 years old.

   b. Asymptomatic

   c. Low-density lipoprotein cholesterol (LDL-C) level of 70 mg/dL to 189 mg/dL

   References: [2] [5] [9] [6] [4]

3. Asymptomatic, coronary artery disease (CAD) risk is high (eg, comorbid conditions [eg, chronic kidney disease, diabetes, hypertension], family history of premature CAD, male) and **coronary computed tomography angiography (CCTA) is contraindicated or unavailable**.
   References: [2] [5] [9] [6] [4]

4. CAC score is known, for surveillance as follows:

   a. CAC score is 0; follow-up every 5 to 10 years

   b. CAC score is more than 0; follow-up every 5 years.

   References: [2] [5] [9] [6]

5. CAC is demonstrated on prior imaging.
   References: [2] [5] [9] [6] [11]

6. Lung cancer screening candidate, **NO** known ASCVD **AND** age is more than 40 years.
   References: [2] [5] [9] [6] [7]

7. Statin therapy is indicated, adverse effects are intolerable **OR** reluctance to take statin medication, for treatment planning.
   References: [2] [5] [9] [6]

8. Symptomatic (eg, chest pain or tightness, shortness of breath), **NO** coronary artery disease (CAD) and CCTA is ordered.
   References: [2] [5] [9] [6] [3] [8]

9. **NO** CAD **AND** single photon emission computerized tomography (SPECT) or positron emission tomography (PET) myocardial perfusion imaging (MPI) is planned.

References: [2] [5] [9] [6] [11]

L33423 CARDIAC COMPUTED TOMOGRAPHY & ANGIOGRAPHY (CCTA)
See also, **LCD33423**: Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA) at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.
(*__NOTE__: *As of 02/28/2025 there is not criteria in LCD 33947 for CT Heart or CT Heart with CAC. The criteria is for CCTA only*.)

LCD 35121 CORONARY COMPUTED TOMOGRAPHY ANGIOGRAPHY (CCTA)
See also, **LCD 35121**:Coronary Computed Tomography Angiography (CCTA) at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.
(*__NOTE__: *As of 02/28/2025 there is not criteria in LCD 33947 for CT Heart. The criteria is for CCTA only*.)

L33947
See also, **LCD33947**: Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA) at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.

L33559
See also, **LCD33559**: Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA) at https://www.cms.gov/medicare-coverage-database/search.aspx *if applicable to individual's healthplan membership*.
(*__NOTE__: *As of 02/28/2025 there is not criteria in LCD 33947 for CT Heart. The criteria is for CCTA only*.)

CT Heart with CAC Scoring Procedure Codes

Table 1. CT Heart with Coronary Calcium Scoring associated procedure codes

CODE	DESCRIPTION
75571	Computed tomography, heart, without contrast material, with quantitative evaluation of coronary calcium

CT Heart with Coronary Artery Calcium Scoring Summary of Changes

CT Heart with Coronary Calcium Scoring guideline had the following version changes from 2024 to 2025:

- Added the following to keep in line with current evidence:
  - Parameters under "10-year atherosclerotic cardiovascular disease (ASCVD) risk estimate is less than 5%"
- Removed the following as current evidence no longer supports the indication:
  - "Pre-operative evaluation prior to major surgery (eg, abdominal surgery, organ transplant, vascular surgery) and CCTA is ordered"

CT Heart with CAC Scoring Definitions

Ankle-brachial index (ABI) is a measure of the difference in the systolic blood pressure of the arm and ankle calculated by dividing the blood pressure of the ankle by that of the arm. It is a noninvasive diagnostic test that measures the ratio of the systolic blood pressure at the ankle to the systolic blood pressure at the brachial artery to assess for peripheral artery disease (PAD).
Apolipoprotein B (Apo B) is a protein that helps metabolize lipids. A blood test called an Apo B test, or Apo B-100 test, can measure Apo B levels and indicate the risk of cardiovascular disease.
Atherosclerosis is plaque (fatty deposit) build-up in the arteries. The deposits are made up of cholesterol, fatty substances, cellular waste products, calcium and fibrin (a clotting material in the blood). As plaque builds up, the wall of the blood vessel thickens. This narrows the channel within the artery reducing blood flow and lessening the amount of oxygen and other nutrients reaching the body.
Computed tomography (CT) is an imaging test that uses X-rays to computer analysis to generate cross sectional images of the internal structures of the body that can be displayed in multiple planes.
Coronary artery disease (CAD) is caused by plaque buildup in the walls of the arteries that supply blood to the heart (called coronary arteries) and other parts of the body.

Coronary Agatston Calcium (CAC) Score is calculated based on the extent of coronary calcification detected by an unenhanced low-dose CT scan (routinely done when a patient has a cardiac CT). It provides risk stratification for a major adverse cardiac event (MACE).
Grading of coronary artery disease (based on total calcium score):

- No evidence of CAD is a calcium score of 0
- Minimal is a calcium score of 1 to 11
- Mild is a calcium score of more than 11 to 100
- Moderate is a calcium score of more than 100 to 400
- Severe is a calcium score more than 400

Assessment of cardiovascular risk:

- Asymptomatic adults with intermediate cardiovascular risk are considered class IIa
- Asymptomatic adults with low-to-intermediate cardiovascular risk are considered class IIb
- Asymptomatic adults that are low cardiovascular risk are considered class III
- Asymptomatic adults with diabetes mellitus and are 40 years of age or older are considered class IIa

Coronary computed tomography angiography (CCTA) is a non-invasive test that uses a computed tomography (CT) scanner to obtain a 3-dimensional image of the heart, including blood vessels that supply blood to the heart muscle (coronary arteries). During the CCTA, contrast dye is injected into the vein so that the coronary arteries can be seen. CCTA provides images to identify a narrowing or blockage of the coronary arteries caused by plaque and allows for accurate visualization of the 3-dimensional heart structure (to include the valves of the heart).
C-reactive protein (CRP) is a pentameric protein synthesized by the liver, whose level rises in response to inflammation.
Estimated glomerular filtration rate (eGFR) is a measure of how well the kidneys are working. eGFR is an estimated number based on a blood test, age, sex, body type and race.
Framingham Risk Score includes age, sex, LDL cholesterol, HDL cholesterol, blood pressure (and also whether the patient is treated or not for hypertension), diabetes, and smoking.
It estimates the 10-year risk for coronary heart disease (CHD). It can be found at https://www.mdcalc.com/calc/38/framingham-risk-score-hard-coronary-heart-disease
Lipoproteins are particles made of protein and fats (lipids). They carry cholesterol through your bloodstream to your cells. The two main groups of lipoproteins are called HDL (high-density lipoprotein) and LDL (low-density lipoprotein).
Lipoprotein (a), also known as Lp(a), is a type of low-density lipoprotein (LDL). It's similar to LDL cholesterol, but it's more "sticky".

Menopause is a natural biological process that marks the end of menstrual cycles and a woman's fertility. It's diagnosed when a person has gone 12 months without a menstrual period.
Myocardial perfusion imaging (MPI) uses an intravenously administered radio-pharmaceutical to depict the distribution of blood flow in the myocardium. Perfusion imaging identifies areas of relatively reduced myocardial blood flow associated with ischemia or scar. The relative distribution of perfusion can be assessed at rest, during cardiovascular stress or both. This test is often called a nuclear stress test.
Positron emission tomography (PET) scan is a procedure in which a small amount of radioactive glucose (sugar) is injected into a vein, and a scanner is used to make detailed, computerized pictures of areas inside the body where the glucose is taken up. It is a medical imaging test that shows the metabolic or biochemical function of organs and tissues.
Preeclampsia is a high blood pressure disorder that can occur during pregnancy. It's characterized by the new onset of hypertension and proteinuria.
Psoriasis is a chronic skin disease that causes red patches covered with white scales. It's an immune-mediated disease, meaning that the body's immune system overreacts and causes problems.
Rheumatoid arthritis (RA) is an autoimmune disease (usually chronic) that is characterized by pain, stiffness, inflammation, swelling and sometimes destruction of the joints.
Single-photon emission computed tomography (SPECT) is a nuclear imaging test that uses a radioactive substance and a special camera to create 3D images of the body's organs, tissue and bones. The images show how blood flows to tissues and organs.
Statins are a group of medicines that can help lower the level of low-density lipoprotein (LDL) cholesterol in the blood.
Triglycerides are a type of fat, or lipid, that circulate in the blood. They are the most common type of fat in the body, making up about 95% of all dietary fats.

CT Heart with CAC Scoring References

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Disclaimer section

Purpose

The purpose of the HealthHelp's clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to safely improve outcomes. Medical information is constantly evolving, and HealthHelp reserves the right to review and update these clinical guidelines periodically. HealthHelp reserves the right to include in these guidelines the clinical indications as appropriate for the organization's program objectives. Therefore the guidelines are not a list of all the clinical indications for a stated procedure, and associated Procedure Code Tables may not represent all codes available for that state procedure or that are managed by a specific client-organization.

Clinician Review

These clinical guidelines neither preempt clinical judgment of trained professionals nor advise anyone on how to practice medicine. Healthcare professionals using these clinical guidelines are responsible for all clinical decisions based on their assessment. All Clinical Reviewers are instructed to apply clinical indications based on individual patient assessment and documentation, within the scope of their clinical license.

Payment

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National and Local Coverage Determination (NCD and LCD)

NOTICE
To ensure appropriate review occurs to the most current NCD and/or LCD, always defer to https://www.cms.gov/medicare-coverage-database/search.aspx.

Background

National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) are payment policy documents outlined by the Centers for Medicare and Medicaid Services (CMS) and the government's delegated Medicare Audit Contractors (MACs) that operate regionally in jurisdictions.

CMS introduced variation between different jurisdictions/Medicare Audit Contractors (MACs) and their associated covered code lists with the transition to ICD 10. The variation resulted in jurisdictions independently defining how codes are applied for exclusions, limitations, groupings, ranges, etc. for the medical necessity indications outlined in the NCD and LCD. Due to this variation, there is an inconsistent use/application of codes and coverage determinations across the United States between the different MACs.

In addition, **WITHOUT** notice, CMS can change the codes that indicate medical necessity and the format of the coverage determinations/associated documents (eg, Articles). This is an additional challenge for organizations to keep up with ongoing, unplanned changes in covered codes and medical necessity indications.

Medical Necessity Codes

Due to the variation in code application between jurisdictions/MACs and that updates can happen without notification, HealthHelp is not able to guarantee full accuracy of the codes listed for any Coverage Determination, and advises that prior to use, the associated Coverage Determination Articles are reviewed to ensure applicability to HealthHelp's programs and any associated NCDs and LCDs.

For Internal Use Only:

11248 11249 11253 11282 11325 11328 11333 11349 11350 11351 11352 11354 11355 11356 11358 11359 11360 11361 11362 11365 11366 11367 11368 11369 11370 11374 11375 11394 11395 11396 11565