

Revealing the Silent Killer: Coronary Heart Disease

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Heart disease is the leading cause of death for both men and women in the United States. Every day adults with no symptoms of heart disease fall victim to the "silent killer". This year more than 150,000 people will die of heart attacks before they reach a hospital. For both men and women, heart disease claims more lives than the next six causes of death combined.



Because symptoms such as chest pain do not usually occur until the very late stages of disease, many individuals are not aware that a problem or condition exists until it is too late.

The good news is that treatment options exist when the disease is detected before a major cardiac event.

Until recently, the difficulty has been in revealing a person's heart health when symptoms are not present because doing so requires a surgical procedure with potential adverse health risks.

New advances in CT (computed tomography) technology are now capable of taking pictures of the heart with such precision and quality that a person's heart health can be revealed in seconds.

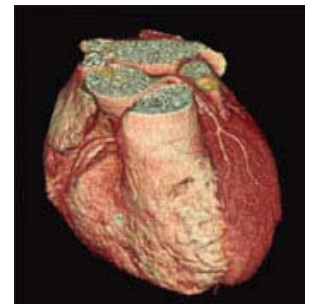


Salem Radiology Consultants is pleased to provide the patients of this community with the first CT scanner in the region and only the second of its kind in Oregon to scan with 64 detectors or "cameras".

This revolutionary technology was recently featured in [Time Magazine](#) and on the [Oprah Winfrey show](#) as one of the most significant advances in medical imaging technology.

The Coronary CT Angiography (CTA) Scan @ SRC may be appropriate for Men 35 or older and women 40 or older with any of the following risk factors.

- High Blood Pressure
- High Cholesterol
- Diabetes
- History of tobacco use
- Family history of heart disease
- Overweight or obese
- Significant emotional or job-related stress.



With early detection and modification to your risk factors, the potential for advanced heart disease may be significantly reduced and in some cases reversed. Coronary CTA is one of the most accurate tests to reveal coronary artery disease.

Coronary CTA is a quick and painless CT scan of the heart and chest. It is an excellent, non-invasive way to look at the anatomy of the heart, specifically any narrowing or build up of calcium and soft plaque in the coronary arteries.

What is A Coronary CTA Scan?

SRC uses sophisticated CT-64 scan technology which permits imaging of the heart and coronary vessels. For this procedure an I.V. will be delicately inserted into your arm by one of our gentle and skilled technologists. Following this you will be asked to rest for about 30-45 minutes in our relaxation room in order to slow your heartbeat to a rate below 65 beats per minute. In some cases a patient will be given a very mild pharmaceutical in pill form called a beta-blocker.

Once you are in a relaxed state you will be transferred to the CT scanner where you will receive a very small dose of oral mist nitroglycerin after which you will lie comfortably while pictures are taken over a few minutes, and you are done. The heart anatomy as well as the health of the coronary arteries will be visualized and measured by a Board-Certified Radiologist specializing in cardiac disease. Studies have shown that coronary calcium and soft plaque formations that rupture are the leading cause of myocardial infarction (heart attack). The coronary CTA scan @ SRC can detect the formation of coronary calcium, soft plaque and narrowing in the coronary arteries with the goal that these conditions when detected can be treated before a major cardiac event occurs.

What Is The Significance Of Coronary Artery Soft Plaque and Calcium Formations?

Calcification in the coronary arteries develops over time from the buildup of fatty streaks in the inner lining known as soft plaque. As the plaque builds and hardens it can reduce and block the flow of blood through the artery. The plaque can rupture, become dislodged, or form a blood clot leading to a heart attack.

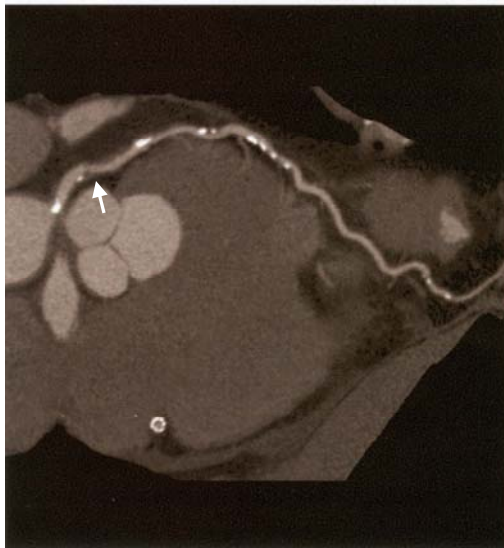
Clinical research shows that coronary artery calcium is a significant marker of atherosclerosis. More importantly, the early detection of coronary calcium allows for the early detection of coronary artery disease, which enables patients to make changes in their lifestyle in order to stop, stabilize and perhaps even reverse the atherosclerotic process.

Diabetes, tobacco use, high blood pressure, obesity, high cholesterol, sedentary lifestyle and family history are important contributors to building atherosclerosis, which can lead to a heart attack.

Left Image:

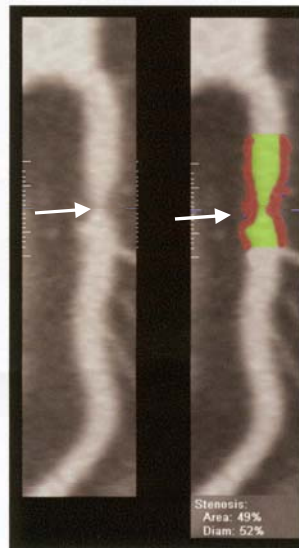
The bright white formations indicate calcifications within the coronary artery.

The white arrow points to a gray colored area of soft plaque within the same coronary artery.



Right Images:

This image shows the coronary artery in an elongated or stretched out format with a 50% narrowing resulting in reduced arterial blood flow and a greater risk for becoming blocked by ruptured plaque formations.



After your scan, the Board Certified Radiologist specializing in cardiac disease will thoroughly study your scan and document the amount of narrowing and plaque formations within the coronary arteries and identify your heart health within one of three outcome categories that can be managed by your physician accordingly.

Outcome Categories – Cardiac CT

LOW RISK - Normal with minimal to no narrowing of the coronary arteries with minimal to no soft plaque formations.

INTERMEDIATE RISK - Moderate narrowing of the coronary arteries with soft plaque formations which require active management with diet, exercise and prescription medications known as Statins.

HIGH RISK - Severe narrowing of the coronary arteries with the recommendation for immediate referral to a cardiologist for surgical intervention.

Are There Treatment Options?

Yes, the atherosclerotic process can be slowed, stabilized and actually reversed to some degree through aggressive lifestyle modifications and/or through medication therapies under the guidance of your physician. Our aim is to identify those individuals with coronary artery narrowing and soft plaque deposits early, **before a heart attack**, so that they may become active participants in halting the progression of this disease process. By identifying atherosclerotic disease early, we hope to prevent the onset of symptoms and/or a sudden coronary event.

How Accurate Is The Coronary CTA Scan?

The sensitivity of this test is at least 95%, depending upon the research study. In other words, if you have a blockage in your arteries, this test has at least a 95% chance of being positive. Exercise treadmill testing, as a comparison, is about 70% sensitive. Also, if there is no calcified narrowing or evidence of soft plaque in your study then there is a >95% chance there is no significant blockage.

Is The Coronary CTA Scan An Adequate Substitute For An Angiogram?

A cardiac CT scan is not a substitute for an angiogram. A cardiac CT scan is used for the early detection of coronary artery disease while an angiogram is used to measure the amount of narrowing in the coronary arteries. Due to the invasiveness and potential health risks to the patient, the angiogram is not used as a screening test for patients with mild or no obvious symptoms.

I Have Chest Pain. Is A Coronary CTA Scan Useful For Me?

A Coronary CTA scan is recommended for patients with risk factors for coronary artery disease. Risk factors include family history of heart disease, high cholesterol, high blood pressure, diabetes, obesity, smoking, high stress and physical inactivity. Patients with symptoms like chest pain should consult with their personal physicians immediately. Symptoms for coronary artery disease are serious and should not be treated lightly.

Is The Coronary CTA Scan Approved By The FDA?

Yes, the CT scanner has been cleared by the FDA and Cardiac Scanning is one of the scanner's intended uses.

How much does a CTA of the chest with coronary evaluation cost?

The cost of a CTA of the chest with coronary evaluation at SRC is \$1,150. Generally, insurance will cover this service when patients present with symptoms such as: unspecified chest pain, precordial pain, painful respiration, chest discomfort/tightness or abnormal chest sounds. For patients without insurance or whose insurance does not cover this procedure, SRC offers a discounted price of \$849 when able to pay the balance of their account at the time of service. Regardless of the outcome it is regarded by our patients as the best investment they ever made.

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