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Cardiologist,
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Credit: Suffolk Heart Group

“ We have found that many times, having a coronary artery calcium scan can be a powerful motivator for people to adopt healthy lifestyle habits. ”

– Dr. David D'Agate

HEART DISEASE

is the cause
of death for

1 OUT OF 3

Long Islanders.

Source: Long Island Health Collaborative,
lihealthcollab.org



HEART SCANS AS AN EARLY DETECTION TOOL

BY PAMELA BRILL

Approximately 805,000 Americans experience heart attacks each year, 605,000 of which are first-time occurrences, according to the Center for Disease Control and Prevention. With cardiovascular disease remaining the No.1 cause of death, doctors remain steadfast about the need for early detection and may order a coronary calcium scan to determine the proper treatment, including those patients that don't show any symptoms.

“The coronary calcium scan offers the ability to help screen people for cholesterol build-up years before they manifest actual disease,” says Dr. David D'Agate, a cardiologist with the Suffolk Heart Group/St. Francis Hospital. While this test has been around for the past 40 years, it made a resurgence in November 2018 when the American Heart Association and the American College of Cardiology recommended that physicians use these scores to determine whether or not patients should be on medication for heart disease. Also known as a heart scan, the coronary artery calcium scan is typically recommended for patients with risk factors including:

- High Cholesterol
- Diabetes
- Smoking
- Hypertension
- Family history of heart disease

‘MAMMOGRAM OF THE HEART’

D'Agate credits this non-invasive, low-dose radiation scan for providing valuable information, with no required preparation. “There is no IV or dye, and it takes a few minutes to complete,” he says. “We consider the coronary calcium scan to be the ‘Mammogram of

the Heart.’ ” Performed in an outpatient setting, the test begins with the technician attaching sensors (electrodes) to the patient's chest. “These connect to an electrocardiogram (EKG), which records your heart activity during the exam and coordinates the timing of X-ray pictures between heartbeats, when the heart muscles are relaxed,” says D'Agate.

As the patient lies flat, a picture of the heart is taken over the course of a few minutes. The scan is reviewed for calcium deposits in the coronary arteries, which are then translated into a calcium score. The higher the score, the more cholesterol build-up in the patient's arteries and the higher the risk of developing blockages.

UNDERSTANDING THE RESULTS

The scoring of the coronary calcium scan is measured on a scale of 0 to 400-plus. The ranges and their significance are as follows:

0 = No plaque present, very low risk of death
(less than 1% at 10 years)

1-100 = A small amount of plaque, low risk of death
(less than 10% at 10 years)

101-400 = A moderate amount of plaque, intermediate risk of death
(10-20% at 10 years)

Greater than 400 = A large amount of plaque, with more than a 90% chance that plaque is blocking at least one artery
(greater than 20% at 10 years)