ENHANCED HEART DISEASE DETECTION AT STAMFORD HEALTH: CORONARY ARTERY CALCIUM SCREENING

At Stamford Health, physicians are harnessing the power of coronary artery calcium screening to accurately predict the risk of coronary artery disease (CAD) in asymptomatic patients and intervene early with the most effective preventive strategies. The non-invasive screening test uses computed tomography to measure coronary calcifications, a highly specific indicator of CAD.

“Calcium screening is the single most accurate method to predict the risk of heart disease in asymptomatic patients compared to prediction algorithms that incorporate traditional risk factors such as blood pressure, cholesterol, current smoking and diabetes,” said Edward Schuster, MD, Cardiologist at Stamford Health. “Armed with a calcium score, I have precise, personalized information about a patient’s heart disease risk, which helps me convince the patient to make important lifestyle modifications or take appropriate medications to lower his or her risk.”

Calcium screening test results are expressed as an Agatston (composite) score: zero correlates with the absence of calcified plaque and very low risk of a major cardiovascular event over the next 10 years; 99 or less correlates with low risk; 100 – 399 correlates with moderate risk; and 400 or greater indicates high risk. “These are general guidelines,” explained Dr. Schuster. “The younger the patient, the more meaningful is the score as an indicator of early plaque build-up.”

In one recent case, a 50-year-old man with no family history or risk factors for CAD was referred by his family practitioner to Dr. Schuster to assess his heart disease risk. Although conventional prediction algorithms placed this patient at low risk, Dr. Schuster encouraged him to undergo calcium screening to gain a more definitive view. “Calcium screening is the first test I think of to assure my low-risk, asymptomatic patients that there are no surprises going on,” said Dr. Schuster. “His score was zero, so I assured him he was at very low risk and suggested he recheck his score in five years.”

In another case, a 50-year-old woman with a LDL of 140 and no other CAD risk factors was referred by her internist to Dr. Schuster for an evaluation. Due to her elevated LDL, Dr. Schuster suggested she begin taking a statin, but the patient declined. Dr. Schuster encouraged her to get a calcium score to gain more information about the health of her coronary arteries. “In this case I hoped the calcium score would help me convince this patient to take an aggressive approach to prevent heart disease,” said Dr. Schuster. “It turned out her score was 100, which indicated coronary artery disease, and she agreed to take a statin and make lifestyle modifications.”

Updated Guidelines for Coronary Artery Calcium Screening at Stamford Health

Stamford Health is committed to providing patients with the most effective approaches to the prevention and treatment of heart disease. With much pride, Stamford Health is offering coronary artery calcium screening to help precisely determine one’s risk of cardiovascular disease.

“Robust clinical evidence supports calcium screening as one of the most predictive tools in assessing the risk of cardiovascular death, myocardial infarction and stroke in asymptomatic patients,” said David Hsi, MD, Chief of Cardiology and Co-Director of the Heart & Vascular Institute at Stamford Health. “It can also provide additional information in both asymptomatic and symptomatic patients to use in concert with standard heart disease risk algorithms to determine the most effective heart disease prevention strategies, such as lifestyle modification and statin therapy.”

To guide patient referrals for calcium screening, Stamford Health physicians have been following the recommendations set forth in the expert consensus statement from the Society of Cardiovascular Computed Tomography. This past fall, the American College of Cardiology/American Heart Association (ACC/AHA) released updated guidelines on the management of blood cholesterol.

The new ACC/AHA guidelines state: “In adults 40 to 75 years of age without diabetes mellitus and with LDL-C levels ≥70 mg/dl-89 mg/dl (≥1.8-4.9 mmol/L), at a 10-year ASCVD risk of ≥7.5%–19.9%, if a decision about statin therapy is uncertain, consider measuring CAC. If the CAC score is zero, treatment with statin therapy may be withheld or delayed, except in cigarette
smokers, those with diabetes mellitus, and those with a strong family history of premature ASCVD. A CAC score of 1-99 favors statin therapy, especially in those >55 years of age. For any patient, if the CAC score is ≥100 Agatston units or ≥75th percentile, statin therapy is indicated unless otherwise deferred by the outcome of clinician–patient risk discussion.  

“The new ACC/AHA guidelines affirm that in patients with low or indeterminate risk, calcium screening can provide more precise risk stratification,” said Dr. Hsi. “Our hope is that the calcium score test results initiate in-depth discussions between patients and clinicians to reach the most informative decisions about therapies.”

“Calcium screening is a wonderful example of the many ways we deploy high-tech solutions to solve our patients’ health problems,” said Brian Stainken, MD, Chair of the Department of Radiology at Stamford Health. “Calcium screening gives physicians objective information to help us predict risk, which can lead to modifying patient behavior.”

“I recommend calcium screening to people in whom we need to make a decision about whether or not to put them on a statin and the traditional risk data doesn’t provide us with a definitive answer,” said Craig Olin, MD, Internist and Medical Director of General Medicine at Stamford Health. “A calcium score helps me make an objective decision about a person’s risk and convince him or her to take preventive action.”

“Fortunately, at Stamford Health we have the resources to manage the entire heart disease spectrum, from screening to diagnosis to treatment, right here under one roof,” added Dr. Olin. “Our cardiac imaging specialists are expertly trained to read the calcium scans, so I know I can trust the findings. Our cardiologists have expertise in interpreting the findings and setting our patients on course for the best approach to heart disease prevention.”

Calcium screening is offered at the Tully Health Center and the Stamford Health Radiology Department. Stamford Health cardiologists are available to see patients for prompt image reviews and consultations if needed. For more information or to schedule a calcium screening test, call 203.276.2602.

References:


The Value of Calcium Screening to Physicians in the Stamford Community

“Calcium scoring is an important tool to determine whether cholesterol medication is needed.”
– Dr. Jack DiTeodoro, Family Medicine Physician

“Calcium scores tell me how aggressively I should be treating patients with cardiac risk factors and if I need a Cardiology referral to assist in their care.”
– Dr. Santi Neuberger, Internal Medicine Physician
The Heart & Vascular Institute (HVI) extends a warm welcome to Dr. Nicholas Fiebach who joined Stamford Health as the new Chair of the Department of Medicine on July 2, 2018. Dr. Fiebach is a fellowship-trained and board-certified general internist with special interests in preventive medicine and medical education.

Before joining Stamford Health, Dr. Fiebach spent 15 years on the faculty at Columbia, first as Residency Program Director in Medicine and then as Vice-Chair for Graduate and Continuing Medical Education. Prior to that he was on the faculties of the medical schools at Yale University and Johns Hopkins University. He currently serves as Professor Emeritus of Medicine at the Vagelos College of Physicians and Surgeons of Columbia University.

After completing his residency training in internal medicine at the University of Colorado in Denver, Dr. Fiebach served in the National Health Service Corps in New York City. He then completed a fellowship in general internal medicine and clinical epidemiology at Brigham and Women’s Hospital and Harvard Medical School in Boston.

Dr. Fiebach is thrilled to join the Stamford Health team and contribute to the continual growth of its programs. “I’ve been tremendously impressed by the breadth of expertise among the physicians here at Stamford Health, who are all extremely well-trained and superb at what they do,” he said. “Physicians here seem remarkably content in their roles, which I believe is due to the culture at Stamford Health, which is one of cooperation, collegiality and patient-centered care.”

One of Dr. Fiebach’s top priorities is to ensure physicians’ satisfaction and professional fulfillment by increasing communication and connectedness between physicians and staff members through improved electronic communications and more opportunities for people to “get together for informative and enjoyable gatherings in real time.”

Another of Dr. Fiebach’s top initiatives is to support the professional development and clinical expertise of physicians so they are poised to serve the complex and growing needs of an aging patient population. “In addition to providing the basic medical needs of patients of all ages, we need to keep pace with the growing heart disease burden by offering our patients the most sophisticated techniques and technologies to treat problems such as atrial fibrillation, valvular disease and coronary disease.”

Dr. Fiebach is dedicated to educating medical students and residents and providing a stimulating learning environment at Stamford Health. “Stamford Health is a major affiliate of Columbia, and medical students from Columbia come here for important rotations,” he said. “We also have a relationship with Quinnipiac University in Connecticut, which has more of a focus on primary care and community medicine. My goal is to support and improve the residency program and encourage our primary care and specialty physicians to get more involved in educating the doctors of tomorrow.”

Recently, Dr. Fiebach answered a few questions about his personal interests and activities for The Pulse:

What are your hobbies?
I have twin 16-year-old daughters, so their hobbies are my hobbies! I also enjoy bicycling, gardening and hiking with Mo-Z, our Portuguese Water Dog.

What would you be if you were not a physician?
If I were more skilled I would be a professional baseball player, but more likely I would be a teacher.

What type of music do you like?
I love jazz. When I was in medical school at New York University I used to go to jazz clubs all the time.

What’s your favorite movie?
“It’s a Mad, Mad, Mad, Mad World”.

What’s your favorite TV show?
I’m a lifelong, intense Yankees fan, so I mostly watch a lot of baseball games.
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HVI News & Achievements

Stamford Health Receives Mission: Lifeline STEMI Gold and NSTEMI Bronze Awards

Stamford Health is the proud recipient of the Mission: Lifeline® Gold Receiving STEMI Award and NSTEMI Bronze Quality Achievement Award for implementing specific quality improvement measures outlined by the American Heart Association (AHA) for the treatment of patients who suffer heart attacks.

The American Heart Association’s Mission: Lifeline program’s goal is to reduce system barriers to prompt treatment for heart attacks, beginning with the 9-1-1 call, to EMS transport and continuing through hospital treatment and discharge. The initiative provides tools, training and other resources to support heart attack care following protocols from the most recent evidence-based treatment guidelines.

Stamford Health earned both Gold and Bronze awards by meeting specific criteria and standards of performance for the quick and appropriate treatment of STEMI/NSTEMI heart attack patients by providing emergency procedures to re-establish blood flow to blocked arteries when needed.

“Stamford Hospital has built a world-class team of physicians, nurses and technicians who work together to provide the best care to our patients who suffer from heart attack,” said Scott Martin, MD, Director of Interventional Cardiology. “From early recognition with EMS and the Emergency Department, to rapid advanced treatment in the cath lab, to diligent follow-up care, we make a concerted effort to help our patients through this most difficult time and help them return to a normal life.”