

ARE HEART ATTACKS PREVENTABLE ?

In order to answer this question, we need to understand a few facts:

Cardiovascular disease kills more women than the next 16 causes combined.

Cardiovascular disease kills more men than the next 8 causes combined.

35% of people with established heart disease have normal cholesterol levels.

Traditional risk factors fail to accurately predict future cardiac events about 35% of the time.

70% of people who die of a heart attack have less than a 50% narrowing of their vessels.

Stress tests are positive when vessels are narrowed more than 70%.

Stress tests are virtually useless for early detection of coronary disease, and they poorly predict future heart attacks. In order to eliminate the adverse effects of any disease there needs to be both early detection and effective treatment. For over a decade there has been effective medical treatment for heart disease in the form of statin drugs, aspirin, and ace inhibitors. Now we can utilize CAT Scan Calcium Scoring and Coronary CTA for its early detection.

Calcium Scoring is a CAT scan that measures calcium levels in the coronary arteries and compares them to age-matched controls. The amount of calcified plaque correlates linearly with the amount of soft plaque, which is the type that can kill people. This technology diagnoses heart disease years before it becomes symptomatic, so early medical intervention prevents disease from progressing. A calcium score has been mistakenly referred to as another risk factor, but it is not; it is the disease itself. The CAT scan calcium score has a 99% accuracy rate in identifying the pool of patients in which heart attacks will occur if left untreated. This is the most accurate method of predicting future cardiac events, and changes the traditional intermediate Framingham Risk Assessment 40% of the time. The vast majority of people with an abnormal score only need medical management and lifestyle modification.

Coronary CTA is a very fast CT scan which unlike calcium score directly images the coronary arteries in great detail after injection of a small amount of intravenous contrast. It is also 99% accurate for the diagnosis of coronary artery disease. It identifies the extent of disease in the wall of the arteries which cannot be evaluated either with a stress test or cardiac catheterization. Unlike calcium scoring, this is not a screening test. It is used primarily to evaluate atypical chest pain and inconclusive stress test.

It is important to note that heart attacks occur as a result of buildup of plaque in the walls of arteries which subsequently ruptures and acutely closes off the artery.

In 50% of individuals there were no previous symptoms. By the time symptoms are present the individual if they survive may need a stent or bypass. Many of us have had acquaintances that seemed to be pictures of health, passed their yearly stress tests, and then died suddenly on a tennis court a week later. If these people knew they had severe asymptomatic coronary artery disease they might have been treated before the event.

ARE HEART ATTACKS PREVENTABLE? By identifying those at risk utilizing both calcium scoring and Coronary CTA, along with medical management and risk factor control, **THE ANSWER IN THE VAST MAJORITY OF CASES IS YES.**

Frank Yuppia, M.D., is the Chairman of the Department of Radiology at St. Joseph's Regional Medical Center, Paterson, and Medical Director of St. Joseph's Ambulatory Imaging Center, Clifton, N.J. He received his medical degree from UMDNJ-New Jersey Medical School, completed a Radiology residency at Columbia-Presbyterian Medical Center, New York, and a fellowship at Memorial Sloan Kettering Cancer Center, New York.

Dr. Yuppia and his colleague, Edward Milman, M.D., each hold Level 3 certification in Coronary CTA'S, and are Board-certified in Cardiovascular Computed Tomography - the highest certification levels obtainable. This distinction makes St. Joseph's Ambulatory Imaging Center, 1135 Broad Street, Clifton, NJ 07013, the only radiology center in New Jersey with two Level 3 readers and Board-certified Cardiovascular Tomography Radiologists.

A member of St. Joseph's Healthcare System, St. Joseph's Ambulatory Imaging Center at 1135 Broad Street, Clifton, N.J., is equipped with the only 64 Multi-slice CT Scanner for calcium scoring and Coronary CTA in Passaic County and is one of two sites in the state that employs Level 3 readers who are also Board-certified Cardiovascular Tomography Radiologists. For more information, visit www.StJosephsHealth.org or call 973.569.6300.



Frank Yuppia, M.D.