

Noninvasive CT Scan for Heart Disease



Loyola University Medical Centre is the first hospital to offer a new and noninvasive technology to test for coronary artery disease.

The technology offered by the centre uses noninvasive CT scans and calculates the amount of blood that flows through diseased coronary arteries that have narrowed due to plaque buildup. The procedure is completely noninvasive and the patient does not have to go through an angiogram. The test called Fractional Flow Reserve-Computed Tomography (FFRCT) has been developed by HeartFlow Inc. and is approved by the FDA.

“FFRCT provides superior patient care and helps guide treatment strategies with a single, non-invasive study that is low risk and provides accurate information,” said cardiologist Mark Rabbat, MD, FSCCT, an assistant professor in the departments of Medicine and Radiology of Loyola University Chicago Stritch School of Medicine.

FFRCT can help determine if a patient has coronary artery disease. It can also determine whether plaque is restricting blood flow thus helping clinicians decide whether a patient could benefit from stents or bypass surgery.

Till now, the fractional flow reserve (FFR) is measured through an invasive angiogram but the new FFRCT is noninvasive. CT scans are used to create a digital 3D model of the arteries. Computer models are then used to simulate blood flow within those arteries to determine if the blood flow is restricted by any narrowings. A colour coded map is used, vessel by vessel, to assess whether sufficient blood is flowing to the heart.

Dr. Rabbat is of the opinion that FFRCT could be a game changer because it is a single comprehensive, non-invasive diagnostic test that offers anatomic assessment and provides a functional significance of CAD. This revolutionary technology could change the way heart patients are treated.

Source: [Loyola University Health System](#)

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