

Beaumont can test for heart-attack prone plaques

MICHIGAN, May 14, 2008. Heart doctors at Beaumont Hospital, Royal Oak are first in the world with a laser imaging device that identifies the makeup of plaque deposits on artery walls.

As these plaque deposits accumulate, they reduce blood flow to the heart, possibly causing intermittent chest pain called angina, and increasing the likelihood of a heart attack. This happens if one of the deposits is filled with fat and ruptures, cutting off blood and oxygen to the heart. Standard testing using an angiogram identifies narrowings but cannot identify fatty plaques.

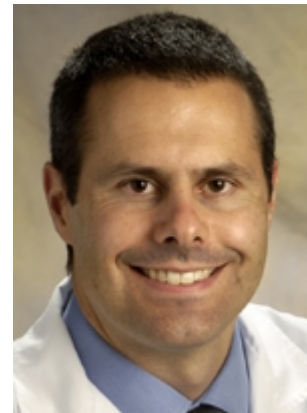
"If doctors can identify these fatty plaques, we can recommend better treatment options to patients," says Simon Dixon, M.D., director of the cardiac catheterization laboratories and co-director of cardiac research at Beaumont, Royal Oak. "This information tells us immediately what length of stent (tiny mesh "scaffold" to hold an artery open) to use and where to place it in patients with severe narrowings. Based on further research, this novel device may help determine which type of stent - bare metal or drug-eluting - is best for the patient."

The device may also hold promise in identifying "vulnerable" plaques that may lead to heart attacks, potentially enabling doctors to prevent them with stents, Dixon says.

Dr. Dixon and colleague Jim Goldstein, M.D., detected a fatty plaque causing a severe narrowing in one of the main arteries of the first patient evaluated with the device after U.S. Food and Drug Administration approval. The patient, a 70-year-old man from Garden City, was treated on May 8. The doctors knew a stent would be the best way to go based on the patient's angiogram, but decided to use a longer stent than the one they chose initially, based on information from the new device.

The [U.S. Food and Drug Administration](#) approved the device, the LipiScan™ Coronary Imaging System, in late April. It is a catheter-based system that uses laser light to detect how much fat and other substances are in the deposits. The device is made by InfraReDx Inc. of Burlington, Mass.

The laser light system is not the first detection tool for fatty plaques studied at Beaumont. Cardiologists



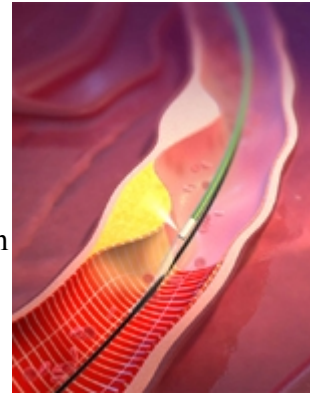
Simon Dixon, M.D., director, cardiac catheterization laboratories and co-director cardiac research, Beaumont, Royal Oak.

in the March 25 issue of *JACC Cardiovascular Imaging* published a first-of-its-kind study showing that unstable coronary plaques can be identified before a heart attack occurs using noninvasive computed tomographic angiography.

Coronary heart disease, which causes heart attacks and chest pain, is the single leading cause of death in America, according to the Web site for the American Heart Association. It accounts for one of every five deaths in America.

Beaumont is Michigan's, and one of the nation's, most experienced providers of heart care, ranking 12th on the *U.S. News & World Report* 2007 list of the "Top 50" hospitals for heart and heart surgery. The Beaumont Heart Center is a comprehensive, state-of-the-art facility that's dedicated to the prevention, diagnosis and treatment of heart problems. Beaumont's Ministrelli Women's Heart Center is the first in Michigan devoted exclusively to the prevention, diagnosis, and research of heart disease in women.

InfraReDx Inc. is a science-based medical device company with expertise in near-infrared spectroscopic technology and its application to coronary imaging. The company, located in Burlington, Mass., was founded in 1998 to meet the unmet medical need for detection and identification of lipid core containing plaques of interest in the coronary arteries. For more information, visit the InfraReDx Website at <http://www.infraredx.com>.



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