

Machine similar to dialysis removes cholesterol from blood

March 1 2013

Some patients are genetically prone to such dangerously high levels of cholesterol that no amount of diet, exercise and medications can reduce their cholesterol to safe levels.

So Loyola University Medical Center is offering a treatment called LDL apheresis, which is similar to [kidney dialysis](#). Once every two weeks, a patient spends two to four hours connected to an apheresis unit that removes 70-to-80 percent of the patient's LDL (bad) cholesterol, then returns the blood to the body. The good [HDL cholesterol](#) is not removed.

Loyola is among a handful of centers in the Midwest – and the only academic medical center in Chicago—to offer LDL apheresis.

The Loyola LDL Apheresis Program is intended for patients who have been unable to control cholesterol with [lifestyle changes](#) and medications. They include patients with [coronary heart disease](#) who have LDL cholesterol greater than 200 mg/dL, and patients without [coronary artery disease](#) who have LDL levels greater than 300 mg/dL.

About 1 in 500 people have [genetic abnormalities](#) that cause [LDL cholesterol levels](#) three to five times as high as normal levels. The condition, called familial hypercholesterolemia, causes heart disease at a young age.

Familial hypercholesterolemia runs in Fran Tobias' family. Her father died of a heart attack in his early 40s, her mother had a heart attack at

age 45, and two brothers died of heart disease. Tobias had her first heart attack at age 37, a second heart attack at age 45, a quintuple bypass surgery and eight stents.

Tobias, 56, who lives in Glen Ellyn, is successfully controlling her LDL by coming for apheresis treatments at Loyola every two weeks.

"This is literally a lifesaver for me," Tobias said. "If I were to stop, I probably would have another heart attack within 18 months to two years."

The Loyola LDL Apheresis Program is multidisciplinary. LDL apheresis is done under the guidance of medical specialists from Loyola's transfusion service, and patients have periodic clinical follow-ups with a lipidologist (cholesterol specialist). The program is directed by Binh An P. Phan, MD, and Phillip J. DeChristopher, MD, PhD. Phan is director of Loyola's Preventive Cardiology Program and DeChristopher is director of Transfusion Medicine and the Apheresis Center.

"The aim of the Loyola LDL Apheresis Program is to provide a multidisciplinary specialized service for the comprehensive evaluation and treatment of patients who require LDL apheresis," Phan said.

Provided by Loyola University Health System

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