

# HELP THE HEART HEAL ITSELF WITH ECP

FILE PHOTOS



Ruben says that his ECP treatments have made him feel 100% better.

## NO SURGERY, NO SIDE EFFECTS

More than 12 million Americans suffer from chronic, painful angina pectoris (chest pain), a physical manifestation of coronary artery disease often triggered by physical or emotional stress.

"The number one cause of death in the United States is *cardiac ischemia*, or hardening of the arteries, a condition in which blood flow is restricted to the heart muscle," observes John D. Ramirez, MD, who oversees



Adam J. Cohen, MD  
Carlos C. Marinelli, MD  
John D. Ramirez, MD

the congestive heart failure (CHF) program and the external counterpulsation (ECP) therapy program at Tampa Heart Center. "The pain or sensation of pressure in the chest that characterizes angina pectoris

results when a blockage of the coronary arteries reduces their ability to carry adequate supplies of oxygen through the heart."

When lifestyle and dietary changes and medications fail to alleviate the symptoms of coronary artery disease, invasive options such as balloon angioplasty or stent placement may correct the problem of blocked coronary arteries.

Bypass surgery is also an option that restores a supply of oxygen-rich blood to the heart by routing the blood supply around the blocked vessels through grafted arteries.

However, for patients who are not candidates for angioplasty or bypass surgery, or for those who do not respond to the previously described therapies, there is now another option for treating coronary artery disease that offers excellent results with no side effects.

That option is ECP.

The ECP CardiAssist System by Cardiomedics, Inc., selected for use by Tampa Heart Center, was cleared by the FDA for the treatment of acute myocardial infarction, angina pectoris, and cardiogenic shock in 1987.

## Dramatic responses

ECP offers patients the opportunity to help the heart heal itself by stimulating its ability to generate fresh

circulation in the heart.

"Our ECP patients range in age from the 30s into the 80s, and most have gone through all the other therapies and multiple surgeries," notes Dr. Ramirez. "When they first consult us, they are often frail. Many have diabetes or hypertension and are very fragile.

"However, the responses for these patients have been dramatic. At least 80 percent of patients respond to this therapy. ECP gives our patients another chance for relief from chest pain, fatigue, and shortness of breath."

Jose Garcia had his first bypass surgery in 1983 and a second one in 2001.

"I started taking ECP therapy in March of 2002," recalls Jose. "I have to admit I was a little nervous about it at first, but it made me feel so much more energetic. I now go to the gym six days a week; I exercise, lift weights, bicycle, and watch my diet. I have no more pain in my chest, and I have the energy to watch our grandchildren — even to spoil them a little," he teases.

## How ECP works

ECP is performed in the comfort and convenience of the Tampa Heart Center. Cuffs (similar to blood pressure cuffs) are placed on the patient's calves, thighs, and waist. The patient lies in a relaxed position while the cuffs are inflated and deflated in rhythm with the beat of the heart. The increased pressure produced within the coronary arteries forces an extra measure of oxygenated blood through the heart muscle, without placing added stress on the heart.

"First of all, by compressing the arteries and veins in the patient's legs during diastole [the period of time that the heart fills up with blood], more blood is pushed up into the heart," educates Dr. Ramirez, "improving circulation."



Jose says that ECP resolved his chest pain and gave him the stamina to work out six days a week.

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Dr. Cohen



Dr. Marinelli



Dr. Ramirez

"Second, by improving circulation, it *naturally* increases the amount of a hormone called nitric oxide, which is similar to the nitroglycerine used medically to dilate the blood vessels of your heart."

"Third, another hormone called *endothelin* causes vasoconstriction, or the closing of blood vessels. With ECP, endothelin decreases, so we see an improvement of blood flow."

"And last, ECP stimulates the formation of new blood vessels, or *collateralization*, and these are what form the natural bypasses, providing the patient with similar results as bypass surgery but without the surgical procedure."

ECP comes out of the research that resulted in the intra-aortic balloon pump, a life-saving procedure for patients with acute heart attacks. However, whereas that procedure is invasive, this therapy is completely noninvasive.

The protocol for ECP involves a one-hour treatment five days a week for seven consecutive weeks. Patients read, watch television, simply engage in interesting conversation, or some people even fall asleep during the therapy while ECP performs its work.

## Successful results

Ruben Fagundo was suffering with severe chest pain, which was not resolved after bypass surgery or maximum medical therapy. Dr. Ramirez recommended ECP for him.

"Before the ECP, my skin was pale, I felt very weak, and I had pain right in the middle of my chest," recalls Ruben, "but the therapy has helped me 100 percent."

"My color is back, and I go to the gym every day for two hours a day. At the end of my workout, I feel like I could keep going."

"Our results have been amazing," concludes Dr. Ramirez. **FHCN**—Kris Kline

## An opportunity

The staff at Tampa Heart Center looks forward to meeting the readers of *Pinellas Health Care News*. Please phone **(813) 875-1177**. The center is located at **2727 W. Martin Luther King Jr. Blvd., Suite 800**, in Tampa. Patients can contact Tampa Heart Center directly or can ask their personal physicians for referrals. Medicare and most insurance carriers recognize ECP as an effective treatment for coronary artery disease and provide reimbursement for this outpatient procedure.

To learn more about the cardiologists on staff, please visit [www.TampaHeartCenter.com](http://www.TampaHeartCenter.com).