A Strong Man’s Heart

Don Reinhoudt’s mother kept bugging him. He didn’t look well. He was pale, and she wanted him to see a doctor. But the 56-year-old Mr. Reinhoudt only laughed. After all, he was winner of the “World’s Strongest Man” competition. He was a powerlifter who’d won seven world championships and set 51 world records. He could bend steel spikes and lift automobiles. How sick could he be?

Plenty, as it turned out. To make his mother happy, Mr. Reinhoudt decided to get a checkup. His sister, who lived in Ohio, recommended the Cleveland Clinic Heart Center. Mr. Reinhoudt traveled from his home in Chautauqua, New York, to meet David Moliterno, M.D., a Heart Center cardiologist.

“Don had moderate to severe depression of his heart strength due to extensive and diffuse atherosclerosis,” says Dr. Moliterno. “His heart was pumping at about half its capacity, and I had to tell him he needed surgery.”

That was not what the world’s strongest man expected to hear.

“I had to take three weeks to go back home and get my head together as an athlete,” Mr. Reinhoudt recalls. “I had to get my life in order, spiritually and emotionally.”
As America's leading heart center, The Cleveland Clinic investigates the whole range of scientific issues surrounding the heart. Here is a more detailed look at some of our recent findings.

Coated Stents: Do They Work?
A Cleveland Clinic Heart Center cardiologist and researcher will help oversee the largest clinical trial to date that will evaluate whether stents coated with a time-released anti-cancer drug can prevent restenosis, a problem associated with angioplasty. Restenosis, or the formation of new blockages at the site of an angioplasty or stent placement, occurs in approximately one-third of all angioplasty patients, usually within six months of the procedure.

“This is the first American trial evaluating stents coated with an anti-cancer drug that will be released over time, and the largest coated stent trial ever,” says Stephen G. Ellis, M.D., co-principal investigator for the TAXUS IV trial and director of the Sones Cardiac Catheterization Laboratories. “This is a tremendous opportunity to assess the potential for a treatment that might resolve restenosis, which some specialists have dubbed the 'Achilles' heel' of angioplasty.”

More than 1 million Americans undergo angioplasty annually after being diagnosed with coronary artery disease.

Less Pain for Bypass Patients
In almost 80 percent of all coronary artery bypass operations, the saphenous vein is removed from the patient’s leg and grafted to the heart. Removing the vein requires an incision on the leg that can extend from the groin to the ankle. For many patients, recovering from this incision is the most uncomfortable part of bypass surgery. Now, however, there is a method of removing the saphenous vein that does not require such a long incision. Minimally invasive saphenous vein removal is accomplished using special instruments through several small incisions. A tiny balloon is inserted beneath the skin, separating the vein from the surrounding tissue. This allows the surgeon to delicately remove the vein and close the incision with little blood loss and small risk of infection. Joseph Sabik, M.D., of the Cleveland Clinic Heart Center, says, “Removing the saphenous vein by this method reduces patient discomfort, there is less scarring, and recovery is much quicker.”
People with diabetes who received a combination of clot-dissolving and clot-preventing drugs for heart attack were less likely to have a second heart attack or require emergency treatment to open coronary arteries, say Cleveland Clinic Heart Center researchers. Their study looked at people with diabetes who had participated in a major international study known as GUSTO V. This study compared the results of two treatment strategies: one in which heart attack patients received a standard dose of reteplase — a drug that dissolves blood clots — with one that combined a half-dose of reteplase with a standard dose of abciximab, a drug that keeps blood clots from forming.

"Because diabetes represents such a significant health concern, we wanted to determine whether the results of GUSTO V could provide insight into potential new treatment for heart attack patients who have diabetes," says Hitinder Gurm, M.D., a cardiology fellow. "We discovered that patients with diabetes who were treated with the combination therapy for heart attack had less incidence of recurring heart attack, less need for urgent revascularization and fewer incidents of malignant ventricular arrhythmia," says Dr. Gurm, adding, "This suggests that enhanced platelet suppression using combination therapy has promising additional benefits."

The study also revealed that 13.3 percent of the people with diabetes who did not receive combination therapy required urgent coronary artery bypass graft surgery, angioplasty or stenting within seven days, compared with 10.9 percent of the patients with diabetes who received the combination therapy.

Heart Disease and Diabetes

**Diabetics are at increased risk** of heart disease. Cleveland Clinic Heart Center researchers recently discovered that people with diabetes who have acute coronary syndromes, such as unstable angina or small heart attacks, are nearly twice as likely to die within a month from heart attacks than people who do not have diabetes. It's another good reason to try and avoid getting diabetes by following the new guidelines recently released by the American Diabetes Association. The Heart Center's Byron Hoogwerf, M.D., one of the authors of the guidelines, stresses the importance of a lifestyle that includes a diet low in sugar and daily exercise. New research shows that a combination of exercise and a sensible diet can protect against diabetes — and help control cholesterol and high blood pressure as well.

More Heart Disease and Diabetes News...

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The father of two children (now in their 20s), the non-smoking Mr. Reinhoudt knew his own father had died of heart disease at age 60. "I was scared," he says. "But I also realized it was just another challenge in my life."

The surgery was performed by Heart Center surgeon Gösta Pettersson, M.D., who grafted six new blood vessels onto the power-lifter's heart. "He did the greatest job," says Mr. Reinhoudt. "My ribs were sewn together with a special mesh so I could continue to lift weights."

Back at his job as director of Youth Services for the city of Chautauqua, Mr. Reinhoudt says, "I feel really good. I'm so much stronger than I was a year ago. I've got more endurance because more blood is going to my heart."

He credits the Cleveland Clinic Heart Center for a job well done, and thanks his mother for nagging him to get checked out. "If she hadn't kept crying and being angry, I don't know what would have happened."
Valve Surgery Gets Small, Too

The benefits of minimally invasive surgery now extend to aortic or mitral valve replacement and aortic arch repair. These minimally invasive techniques offer the same outcomes as standard valve procedures. Patients, however, generally have lower post-operative pain and spend less time in the hospital and in rehabilitation.

The aortic and mitral valves regulate the passage of blood between the aorta and different parts of the heart. Sometimes, these valves partially close due to disease or a congenital defect, affecting the heart's ability to pump blood. The aortic arch is the bend in the large blood vessel above the heart. It is subject to congenital malformations that can also block the proper flow of blood.

In the standard valve procedure, surgeons operate through a 10- to 12-inch incision in the patient's sternum. With the minimally invasive approach, however, surgeons operate through several small two- to three-inch incisions. Using tiny cameras, or laparoscopes, surgeons are able to see the areas of the heart they need to operate on, without having to unnecessarily expose other areas. This is especially beneficial where patients may have previously had bypass grafting or other procedures that surgeons want to avoid exposing with the additional surgery.

Minimally invasive aortic or mitral valve replacement and aortic arch repair are technically challenging for the surgeon, but the benefits to the patient are many. Lars G. Svensson, M.D., Ph.D., director of the Clinic's Center for Aortic Surgery and its Marfan Syndrome Clinic, says that patients particularly appreciate the quicker recovery time. “While those undergoing standard surgery require four to six weeks before returning to work, many of those who received the minimally invasive approach were able to return to most activities within two weeks.”