

Obesity is major contributor to heart disease, impediment to diagnosis and treatment

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Obesity is a major contributor to heart disease that substantially hinders the disease's proper diagnosis and treatment, says a cardiologist researching the impact of obesity and weight loss on the heart. With obese youth as the fastest-growing demographic group, the country's problem is only going to get worse, says Dr. Sheldon Litwin, a preventive cardiologist and Chief of the Medical College of Georgia Section of Cardiology at Georgia Health Sciences University. Credit: Phil Jones, GHSU campus photographer

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About half of Litwin's patients at GHS Health System have obesity-related [heart disease](#), with [shortness of breath](#), hypertension and diabetes as contributing factors. "Now I am seeing 25-year-olds weighing 350 pounds who present with chest pain or shortness of breath," he said.

"The problem is of enormous magnitude. Everything from the heart disease process to its diagnosis and treatment are affected by obesity. We see it every day. This really is the number-one issue facing us," Litwin said of his cardiology colleagues.

One solution may be gastric bypass surgery which spurs weight loss much faster than [lifestyle modifications](#) as it lessens [heart disease risk](#), said Litwin, a co-author of a study published in a September obesity theme issue of the [Journal of the American Medical Association](#).

The Utah Obesity Study followed more than a 1,000 severely [obese individuals](#) for six years. About a third had gastric bypass surgery and the remainder either didn't seek or couldn't get the surgery. [Surgery patients](#) experienced about a 30 percent weight loss compared with none in controls and had significant reductions as well in [cardiovascular risk factors](#). They experienced a healthy downsizing of their heart's pumping chamber and a profound reduction in the incidence of both active and new diabetes as well as [high blood pressure](#), elevated [lipid levels](#) and sleep apnea. Fitness and overall quality of life improved.

"I would much rather see everybody out there riding their bikes, walking, running, going to the gym. No question that is better than having surgery," said Litwin. However, surgery may be the only thing

that enables many obese individuals to make these healthy lifestyle changes, he said. Litwin came to MCG in 2011 from the University of Utah School of Medicine and now works as part of the multidisciplinary team treating morbidly obese patients at GHS Health System.

Excessive fat literally gets in the way of sound waves or X-rays used to diagnose heart disease so resulting images are often inconclusive. Tables where patients lie to get a cardiac catheterization, which can aid diagnosis as well as treatment, typically can't accommodate patients weighing over 400 pounds. While equipment is being adapted for larger patients, the resulting image likely won't improve and the adaptations won't be widely available for several more years, Litwin said.

In the meantime, patients who aren't candidates for [bypass surgery](#) or other invasive treatments, are typically prescribed a drug regimen based on symptoms. However the drugs don't work that well either, possibly because dosing has not yet been adjusted for size, he said. "We see patients with hypertension who are on four drugs but aren't responding. One of the most common causes of resistant hypertension is obesity."

"This long-term study provides an objective assessment of what we see every day: bariatric surgery helps many patients make a healthy transformation, inside and out," said Dr. Michael A. Edwards, Director of the GHS Health System Weight Loss Center and Chief of the MCG Section of Minimally Invasive and Digestive Disease Surgery. "Critical to successful outcomes is proper screening to identify the best surgical candidates and the availability of a comprehensive weight loss team to complete a thorough health assessment, provide bariatric surgery options and provide support and information to make long-term healthy lifestyle changes." Edwards notes that a supervised medical weight loss program can help patients at high risk improve to the point of becoming safer candidates for weight-loss surgery.

The past two decades have yielded dramatic increases in obesity in the United States, according to the Centers for Disease Control and Prevention. Today more than one-third of adults and 17 percent of children and adolescents are obese; notably childhood rates have tripled since 1980.

An advocate of the emerging use of computerized tomography to quickly and non-invasively diagnosis heart disease in patients who, for example, come to an emergency room with chest pain, Litwin notes that the beating heart with its tiny arteries is an imagining challenge even without the obesity issue. He is corresponding author of a recent review article on the expanding role of CT in assessing and treating heart disease in the journal Trends in Cardiovascular Medicine.

Provided by Georgia Health Sciences University

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