A new era in cardiac valve surgery has begun...
“We have built a multi-disciplinary valve team with the highest level of expertise and a patient-centered approach. This has enabled us to provide state-of-the-art treatment for all forms of cardiac valve disease.”

Rawn Salenger, MD, FACS, Director, The Center for Valve Surgery

Edward F. Lundy, MD, PhD, Chief of Cardiac Surgery
The physicians—and the philosophy—behind our success

Ultimately, our mission is simple: To restore function to a diseased heart valve. To achieve that every day, however, takes years of hands-on experience and expertise. It demands nothing less than being first-rate in our field.

Collectively, Dr. Salenger and Dr. Lundy have performed more than 2,000 valve procedures. Backed by a skilled, multi-disciplinary team of cardiologists, echocardiographers, intensive care physicians, pulmonologists and other specialists, we offer the most advanced treatment options available in medicine for valve disease.

Here’s a sampling of what’s happening right now...
A cardiac valve surgery program rated 5 stars by HealthGrades®, 3 years in a row.*

It’s a distinction we’re proud to bring to our patients and fellow physicians.
Comprehensive valve treatment

Mitral regurgitation | mitral stenosis | aortic stenosis or insufficiency | bicuspid aortic valve | aortic root dilatation | tricuspid regurgitation and more...

We provide both surgical and non-surgical treatment options, depending on the needs and diagnosis of your patient. Everyone we treat, however, receives an individualized plan—our experts thoroughly explain and guide your patient through every option.
It starts here.

A critical early step in evaluating a valve issue is the echocardiogram. It reveals the extent of valve dysfunction and helps set into motion a plan to repair the problem.

Naturally, technology is only as good as the people who use it. That’s why we have our own staff of cardiologists who are experts in reading echocardiograms and evaluating valvular lesions. An accurate assessment of the valve dysfunction by echocardiogram is crucial to a successful outcome.
Posterior leaflet prolapse

Color doppler demonstrating severe mitral regurgitation
We believe...

that a well-functioning native valve is the ideal outcome. This is why we strive to repair the patient’s own valve whenever possible. If a native valve can’t be restored, we’ll turn to a tissue or mechanical valve—even then, we routinely preserve the patient’s native sub-valvular apparatus. This maintains a natural connection between the valve and the heart and improves cardiac function.
Surgical technique

The surgeon resects a triangular wedge of tissue from the prolapsing segment.

Here, the surgeon has completed the resection.

The surgeon restores leaflet continuity by suturing the edges back together. Later, an annuloplasty ring is added to restore the geometry of the annulus.
Aortic Valve Disease

Aortic stenosis is the most common heart valve disease in adults, and its prevalence is expected to double in the next 20 years. The mainstay of treatment for aortic stenosis remains open heart surgery with valve replacement. Many older patients with aortic stenosis remain untreated and are at risk for heart failure and cardiac death. But, even for these patients, aortic valve replacement surgery can be safe, and their quality of life and survival improved, compared to living with symptomatic severe aortic stenosis.
Carpentier Edwards Bioprosthetic Aortic Valve
Ascending aortic and aortic root aneurysms represent a risk of sudden catastrophe in the form of aortic dissection or rupture. The goal is to electively replace the aorta prior to a catastrophe. Studies from large centers show that, in the general population, the hinge point for increased risk of an aortic catastrophe is 5.5cm. When the aorta reaches this size, it should be replaced, because the risk of surgery is lower than the risk of an aortic catastrophe. Conversely, for smaller-size aortas, the risk of surgery is higher than that of a catastrophe. Certain subsets of patients—those with Marfan disorder, Ehlers Danlos, Loeys Dietz, bicuspid aortic valve, and with a strong family history—are at higher risk of an aortic catastrophe at smaller sizes and should be operated on sooner.
Some ascending aortic aneurysms involve the root of the aorta and require replacement with re-implantation of the coronary arteries into the newly fashioned aortic root. Often, an aortic root aneurysm causes the aortic valve to become insufficient. Increasingly, in appropriate patients with well-functioning valves, we are able to re-implant the patient’s own valve into the new aortic root. This helps preserve natural valve tissue and avoids, when possible, using a prosthetic heart valve.

Images on this page courtesy of The Mount Sinai Medical Center.
THE VALVE TEAM

SURGEONS

Rawn Salenger, MD, FACS
Edward F. Lundy, MD, PhD

NURSE PRACTITIONERS

Joanne Bennett, RN, BSN, MSN, FNP-BC
Carolyn Lifrieri, RN, BSN, MSN, FNP-BC
When is surgery the right choice?

Surgery is usually indicated for severe valvular disease, particularly in the presence of symptoms, impaired left ventricular function, elevated pulmonary artery pressures, or atrial fibrillation.
To refer any patient to The Center for Valve Surgery, please call 845.368.8800.