

CARDIOTHORACIC SURGERY TODAY

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Aortic and Valve Capabilities Highlight Top-Level Heart Surgery

As cardiothoracic surgery programs gain volume, capacity, and expanded staff and experience, they grow the capability to treat patients of higher acuity and more complex needs. Candidates who are at greater risk for surgery due to multiple heart or other conditions, or who can benefit from minimally invasive endovascular interventions, can find the best surgical solutions available in these programs. Such is the continued evolution of Virtua cardiothoracic (CT) services.

“Striving to serve southern New Jersey as a tertiary destination cardiovascular center means to function as one unit in providing a comprehensive care model for all heart needs for our patients. In fact, we already excel in many areas of heart care compared to other programs in the region,” said CT surgeon Chun (Dan) Choi, MD, Virtua vice president of Cardiovascular Clinical Operations, who came to Virtua from Johns Hopkins University School of Medicine last year.

Endovascular Procedures Easier to Undergo

Advanced procedures go far beyond even safely providing CABG for patients who are high risk for surgery due to heart or kidney failure, COPD, liver disease, or other conditions. See complete list here: www.virtua.org/CTCapabilities

At Virtua, the aortic service and aortic valve clinic are foremost features. The team has more than 10 years of successful experience in performing transcatheter aortic valve replacement (TAVR), which offers patients faster recovery than open surgery. Patients with stenosis due to aortic valve calcification or with bicuspid valve or other causes are candidates. The interventional cardiologist and surgeon work in tandem on the procedure in the catheterization lab, and can now offer it through carotid, subclavian, or transapical access routes.

Select patients may now be discharged the same day as their procedure instead of spending overnight in the hospital.

The specialists also perform valve-sparing aortic root replacement, as well as medical management of aortic dissections and graft replacement of aneurysmic aortic sections via thoracic endovascular aneurysm repair (TEVAR) and endovascular abdominal aneurysm repair (EVAR). Mitral valve repairs, including use of the MitraClip, are also a focus.

Building on Long-Standing Expertise

Virtua Our Lady of Lourdes Hospital is the leading CT surgery program in South Jersey and one of the largest providers of cardiac services in the region. Recognized by Healthgrades, *U.S. News & World Report*, and other leading ratings organizations, Virtua Our Lady of Lourdes provides many of the same advanced procedures as the region’s university-based academic medical centers—but much closer to home for patients from South Jersey. With surgeons trained at world-renowned institutions, the program supports a rapidly growing case mix of patients with needs ranging from routine operative care to complex health and heart conditions and high-level surgical requirements.

Over the next 18 months, the service hopes to establish a program for implanting ventricular assist devices (VADs), a technology that can dramatically restore heart capacity.



Aortic valve replacement through a minimally invasive (small thoracotomy) incision at Virtua.

To learn more or refer a patient, call **856-547-0389**.
For emergent needs, call the Virtua Transfer Center at **856-886-6582**.

Surgery to Repair Two Implants

A notable recent case at Virtua illustrated its capability to treat patients with a complex set of conditions. It required a re-operative double-valve replacement for a 52-year-old woman with acute-on-chronic systolic heart failure and severe pulmonary hypertension. With the patient under general anesthesia, a TEE confirmed severe regurgitation of the mitral valve (due to a failed tissue prosthesis with two torn leaflets) and regurgitation of the tricuspid valve.

The team cannulated the femoral vessels to initiate cardiopulmonary bypass on the heart-lung machine. The surgeons reopened the chest, avoiding injury to the patient's heart, which was densely located against the sternum due to her previous operation and long-standing heart failure. After careful and tedious dissection, the surgical team stopped the heart by administering a special medication directly into the heart vessels. The left atrium was entered, and the team was able to visualize the failed prosthetic mitral valve, which the specialists then removed and replaced with a new valve.

The next task was to address the leaking tricuspid valve, which had failed from her previous repair. After attempting to re-repair the valve, the team determined that the valve was too extensively damaged due to the previous surgery. The surgeons proceeded to replace it with a prosthetic valve.

After the new valves were successfully implanted, the heart was restarted. The patient then was separated from the heart lung-machine, after which all her incisions were closed. The heart-lung machine supported the patient for 192 minutes, with 82 minutes of heart standstill time.

At her postoperative visit, the patient reported feeling very well, was appreciative of the team, and noted that she could now walk without feeling out of breath.

Aortic Surgeon Expands CT Team



Cardiothoracic surgeon Eden C. Payabyab, MD, has joined Virtua's staff, bringing a depth of experience in operative cardiovascular procedures and heart research. Dr. Payabyab comes to Virtua from Emory University, where she completed an advanced aortic surgery fellowship. She also

completed a cardiothoracic surgery fellowship at New York-Presbyterian/Weill Cornell Medical Center, and was earlier a fellow at the National Institutes of Health.

Dr. Payabyab is extensively published, including research related to aortic diseases and interventions. She has authored papers in *Annals of Thoracic Surgery*; *Heart, Lung and Circulation*; *Journal of Cardiac Surgery*; and *Journal of Cardiothoracic Surgery*.

Dr. Payabyab will support all aspects of Virtua CT clinical capabilities, including the continued expansion of Virtua's aortic service.

"I'm glad to be back in the region," she said. "This is a wonderful opportunity to work alongside Virtua's exceptional cardiologists and have a meaningful impact serving the South Jersey community."