

TriClip: Transforming care for heart valve patients

Tricuspid regurgitation — when the tricuspid heart valve becomes leaky — [affects](#) more than 1.6 million Americans and has historically been difficult to treat. Until now.

OSF HealthCare Saint Francis Medical Center is now offering a cutting-edge, minimally invasive option called TriClip for patients suffering from tricuspid regurgitation.

Introducing TriClip

"We have a percutaneous (through the skin) option of fixing tricuspid regurgitation, leakiness of the tricuspid valve. That procedure is called TriClip," says Sudhir Mungee, MD, an interventional cardiologist and director of the structural heart division of OSF HealthCare Cardiovascular Institute who along with Ashvarya Mangla, MD, and Marco Barzallo, MD, performs these procedures at OSF Saint Francis Medical Center. "It is similar to MitraClip, but in the tricuspid valve position."

The heart is divided into four chambers: two upper chambers and two lower chambers.

Subsequently, the heart contains four valves: aortic, pulmonary, mitral and tricuspid. These valves can become narrow (stenosis) or leaky (regurgitation); either condition is detrimental to patients and can cause heart failure.

TriClip was started in early 2025 and adds on to the already robust structural heart program at OSF HealthCare. OSF launched a transcatheter aortic valve replacement (TAVR) program back in 2012, treating aortic valve disease (aortic stenosis).

In 2021, OSF Saint Francis launched the MitraClip program. This is impactful when the mitral valve, located on the left side of the heart, gets leaky. Often seen in people with left-sided heart disease, kidney disease or a dilated heart, tricuspid regurgitation has been rarely alone treated surgically due to the risks involved.

The TriClip program at OSF Saint Francis changes that.

"Imagine there are three leaflets of a valve that need to come together and close the valve. If the leaflets are not coming together, there will be gaps left, which will cause leakiness of the blood in the lower right chamber, to the top right chamber," Dr. Mungee says. "TriClip is actually a clip that holds the leaflets together, so the leakiness can be reduced."

Serious challenges of tricuspid regurgitation

Tricuspid regurgitation is not just uncomfortable – it's dangerous.

"Leakiness of the tricuspid valve can lead to right-sided heart failure," Dr. Mungee says. "It weakens the right side of the heart muscle and causes patients to have fluids in the belly or swelling in the legs. It decreases the quality and quantity of life significantly."

TriClip has been proven to have better patient outcomes than medical management alone, Dr. Mungee says, thanks to previous clinical trials.

A proven track record

Dr. Mungee further mentions that the structural heart team at OSF Saint Francis has performed nearly 2,000 TAVR procedures and at least 150 MitraClip procedures. OSF Saint Francis' structural heart division also has expertise in performing these procedures in previously failed surgical valves and can perform the unique technique of carotid artery access when the leg arteries are too narrow. This poised the structural heart division to launch the TriClip program in spring 2025. OSF Saint Francis is one of the very few medical centers in Illinois to treat patients with tricuspid valve issues.

Imaging of these valves is done using transesophageal echocardiogram (TEE) and intracardiac echocardiography (ICE), two different imaging procedures to get a better look at patients' hearts for successful outcomes.

To perform a TriClip procedure, Dr. Mungee says it takes a comprehensive team to make it happen. That includes cardiac imaging specialists, structural heart interventionalists, heart surgeons and the heart failure team at OSF Saint Francis.

Three TriClip procedures have already been successfully performed at OSF Saint Francis so far.

What to watch for

Dr. Mungee says the major health concerns for potential tricuspid valve patients would be swelling in the legs, buildup of fluid in the belly, or you have weakness and shortness of breath due to having a leaky valve. Start by making an appointment with your primary care provider (PCP) or cardiologist with such symptoms. It's important to specify which heart valve it is and then be referred to the structural heart team to evaluate the best options.

One of the most impressive aspects of the TriClip and similar procedures is the speed and ease of recovery.

"Most of our patients who get a new valve (TAVR), a MitraClip or a TriClip, come the day of the procedure, and the procedure lasts 1-3 hours. This is followed by a recovery period of 1-2 hours, and then they should be sitting and walking by the end of the day," Dr. Mungee says. "The next day, 98% to 99% of patients are discharged home with no skin cut. We put the sutures from the outside in, so it's like a pinhole in the groin that we put our instruments through and get the job done."

If you're diagnosed with a tight valve (valvular stenosis) or a leaky valve, you could then be referred to a structural interventionalist.

Dr. Mungee says the persistent work at OSF Saint Francis to put together the right teams has allowed for a robust heart program to flourish at the OSF Cardiovascular Institute and OSF Saint Francis. This has allowed a larger number of patients with more complex health issues to be able to receive world-class care in Peoria. Dedicated valve coordinators help patients all along the way; before, during and after procedures.

"It takes a village to take care of patients with a lot of complexities," Dr. Mungee says. "This is why we are striving towards being a destination center, along with a center of excellence, for our valve patients."

To learn more about heart conditions treated at OSF, visit the OSF HealthCare [website](#).