



What's on CVC Level 2a?

This is where you'll find the Cardiac Procedures Unit or CPU, home to our highly skilled **interventional cardiology and electrophysiology** teams. The **reception area** named for donors Warren and Lauraine Hoensheid, and the **quiet/meditation room** is named for Jane and Andrew Beam.

Formerly located in University Hospital's lower level, the CPU now has far more room to perform advanced procedures to diagnose and treat a wide variety of cardiovascular conditions. There are four interventional cardiology suites (called "**cath labs**" for short) and five electrophysiology suites (called "**EP labs**"). All of the suites have the most advanced digital technology available. One of the EP labs is equipped with one of the nation's first magnet-guided navigation systems – meaning that none of the instruments used in the room can contain iron. One of the cath labs will have a 64-slice CT scanner to allow rapid imaging of the heart.

This level also provides a larger and more pleasant environment for our patients to be prepared for their procedures, and to recover. Each patient will have one of 36 small private rooms, many with windows. Most patients treated here can go home on the same day as their treatment.

All of the procedures performed on this level are done with minimally-invasive techniques that use tiny, thin instruments called **catheters**. A small incision in the thigh or neck provides the gateway for the catheter to be inserted into the bloodstream. Then, guided by real-time X-ray images, doctors carefully steer through the blood vessels into the area where the problem lies – including inside the heart itself.

U-M offers catheter-based procedures that only a few other hospitals can offer. In fact, U-M is considered a leader in all aspects of this type of care: treating patients, performing research, training doctors, and leading efforts to improve care for patients worldwide.

In many patients, catheters are used to inject dye to reveal blockages in blood vessels — and then a tiny balloon can be inflated to open them up. This can be done as emergency treatment for heart attacks, and as a scheduled procedure for blockages in vessels of the heart and body. A tiny scaffold called a "stent" can be unfolded and placed in the blood vessel to hold it open. Or, a tiny blade can scrape plaque from the vessel walls.

For people with irregular heartbeat conditions, called arrhythmias, catheters equipped with electronic probes give doctors a way to map the electrical circuits within the heart muscle. They can find the specific areas where haywire electrical signals cause the heart to beat irregularly, and deliver brief "zaps" of intense radio waves to restore regular rhythm.

For people with excess heart tissue growth or other conditions, tiny doses of alcohol can be delivered directly into the heart to clear out unwanted tissue. And for people with acute heart failure who are too critically ill to withstand surgery, U-M teams can use a catheter to connect advanced pumping devices to the bloodstream, and relieve the burden on the heart.