THE CENTER FOR STRUCTURAL HEART DISEASE

at Henry Ford Hospital

Henry Ford Health System

INNOVATION, TECHNOLOGY, REALIZED INGENUITY

A Heritage of Discovery

Henry Ford Health System is widely recognized as one of the nation's top systems for the treatment of heart disease and vascular conditions. Our cardiologists and our heart and vascular surgeons develop and utilize highly innovative technologies to treat heart disease using the least invasive approaches. Each year, HFHS conducts more than 15,000 heart and vascular procedures, and sees more than 200,000 cardiac patients from across the city, from across the state and even from across the world.

Henry Ford Hospital has been a teaching and research center since its founding in 1915 – for a full century we have embodied an innovative, pioneering spirit, creating new advances in medicine. That spirit continues with a new subspecialty of cardiovascular medicine that customizes heart valves and other treatments with singular precision, while also minimizing the need for open-heart surgery.

These new procedures impact a wide range of defects and abnormalities – everything from leaky heart valves to defects in the heart walls and the muscle of the heart itself.

A TEAM OF EXPERT INNOVATORS

Leaders in Structural Heart Disease

Today, Henry Ford Hospital is building a world-class structural heart disease program in Detroit. Our team of cardiovascular experts is led by William W. O'Neill, M.D., an internationally acclaimed expert in interventional cardiology and the recipient of many prestigious awards. With years of experience teaching, conducting research and treating patients with heart disease, Dr. O'Neill is recognized worldwide as a leader in catheter-based treatments of structural heart disease. As the Medical Director for the Center for Structural Heart Disease, Dr. O'Neill and his colleagues are poised to shepherd Henry Ford Hospital into the future of cardiac care advancements.

WILLIAM W. O'NEILL, M.D.

Medical Director, Center for Structural Heart Disease

HENRY KIM, M.D., MPH
Chair, Division of Cardiology

GAETANO PAONE, M.D.
Division Head, Cardiac Surgery

DEE DEE WANG, M.D.
Senior Staff Cardiologist

MICHAEL ISLEY, M.D.
Cardiac Anesthesiologist

MARVIN ENG, M.D.
Structural Heart Fellowship Director

JANET WYMAN, DNP, RN-CS
Program Coordinator

TEAM ACCOMPLISHMENTS

- FIRST IN THE WORLD to repair a ruptured heart and open five blocked arteries in one catheter-based procedure, avoiding open-heart surgery in an elderly patient.
- FIRST IN THE U.S. to perform aortic valve replacement using a catheter-based procedure.
- FIRST IN THE U.S. to use a heart-cooling procedure to reduce heart attack damage. Lowering body temperature up to 9° F through a chilled IV solution has shown promising results in protecting a patient from brain damage after a heart stops.
- FIRST IN THE U.S. to use stem-cell therapy for heart repair.
- FIRST IN U.S. to implant donor vein stents through a catheter to repair leaking arteries.
- FIRST IN THE WORLD to perform a successful triple heart valve repair through a catheter on a pregnant woman, allowing the pregnancy to continue.

COLLABORATIONS AND ADVANCEMENTS

Patients who seek treatment at the Center for Structural Heart Disease will be seen and evaluated by our team of experts, including Dr. O'Neill, who will work collaboratively to determine the best treatment for each individual. Our multidisciplinary team includes interventional cardiologists, cardiac surgeons and other specialists. In addition to providing expert care, our structural heart disease experts use the most advanced telemedicine technologies to provide consultations with patients at other locations throughout Michigan, minimizing the need for patients to travel.

"Henry Ford has had an incredibly important role in helping to, by and large, cure heart attacks, dramatically decrease the complications and decrease the mortality rate. The institution is well-known throughout the country and throughout the world for the research that has been done on heart attack treatments."

WILLIAM W. O'NEILL, M.D.
Medical Director, Center for Structural Heart Disease

#1

HEART DISEASE

is the number one cause of death
in the United States.*

Approximately

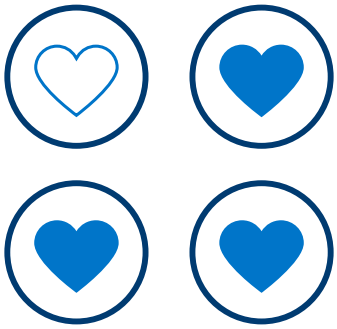
600,000

Americans die from heart disease annually.*

The heart disease mortality rate in

MICHIGAN

is higher than the national average.**



In the United States

1 IN 4

women die from heart disease.*

Approximately

ONE QUARTER OF AMERICAN ADULTS HAVE SOME TYPE OF STRUCTURAL HEART DEFECT.

A few are associated with progressive disabling symptoms and only become apparent as patients get older – often when surgery is associated with a very high risk.

The average age of Michigan's population is

EXPECTED TO INCREASE SIGNIFICANTLY DURING THE NEXT DECADE,

and heart disease will continue to be a major health concern in our state.**

*According to the U.S. Centers for Disease Control and Prevention

**According to the Michigan Department of Community Health

INSPIRATION AND RESULTS

We are working tirelessly to advance research and improve outcomes for the growing number of patients with structural heart disease. We believe it is possible to create a world-class structural heart disease research and treatment center in the heart of Detroit. The time is now, the pieces are in place. HFHS has a history of innovation and an inspired medical team – with your help, we will make this transformation a reality.

WHEN A 63-YEAR-OLD CARLETON, MICHIGAN, MAN BEGAN EXPERIENCING SYMPTOMS OF HEART FAILURE –

severe shortness of breath and fatigue – it was clear that his 1998 valve implant was failing. "I was in bad shape," Kenneth recalls. "I couldn't walk across the room without getting winded. I just couldn't do anything without getting completely exhausted."

Kenneth's cardiologist at Henry Ford Wyandotte Hospital referred him to Dr. O'Neill, Medical Director of the Center for Structural Heart Disease at Henry Ford Hospital in Detroit. Due to complications after his first open-heart surgery back in 1988, Kenneth wasn't a good candidate for a second open-heart procedure to replace the failing aortic valve. Fortunately, he was an excellent candidate for transcatheter aortic valve replacement (TAVR), an innovative procedure pioneered by Dr. O'Neill.

For Kenneth's procedure – the first TAVR in Michigan – Dr. O'Neill led a team of physicians from multiple specialties, including interventional cardiology, cardiac surgery, advanced cardiac imaging, vascular surgery and cardiac anesthesia. The team used a catheter to thread a replacement valve through a blood vessel in Kenneth's leg and up to the heart's failing aortic valve. Once the new valve was fitted precisely inside the failing aortic valve, it began working immediately.

"From what I've been told, everyone in the operating room knew something great had just happened and it would save my life," Kenneth said. "The new valve started working that quickly and it was clear the procedure had been successful." Kenneth felt better almost immediately. After a brief recovery period, he returned home with new energy and a new outlook on life. "I don't know what would have happened to me without the medical team at Henry Ford."

KENNETH
Center for Structural Heart Disease patient

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