



Frederik Meijer Heart & Vascular Institute

Report



<p>Advanced Heart Failure..... 4 New fellowship in AHF and Transplant Cardiology launched July 2023</p> <p>Hypertrophic Cardiomyopathy..... 6 One of less than 50 HCMA Centers of Excellence in the nation</p> <p>Adult Congenital Heart..... 7 1,870 outpatient visits in 2022</p> <p>Clinical Cardiology and Advanced Imaging..... 9 More than 9,000 new individuals seen in 2022 and more than 77,000 cardiovascular images</p> <p>Cardio-Obstetrics..... 11 Caring for high-risk cardiovascular patients during pregnancy, delivery and postpartum</p> <p>Cardio-Oncology..... 11 Keeping our patients' hearts safe while enduring cancer treatment</p> <p>Preventive Cardiology and Cardiovascular Rehabilitation..... 12 Offering Pritikin Intensive comprehensive lifestyle change program</p> <p>Electrophysiology..... 14 Treating more patients with arrhythmias than anywhere else in Michigan</p> <p>Interventional Cardiology..... 16 Using telerobotics to treat hearts from rural areas, 500 miles away</p>	<p>Cardiothoracic Surgery..... 18 Choosing robotic surgery approach more than three times the national rate</p> <p>Structural Heart and Valve..... 21 Less invasive options and hope for higher risk patients</p> <p>Transcatheter Aortic Valve Replacement..... 22 341 TAVR procedures in 2022 with better-than-national mortality rates</p> <p>Heart Transplant and Ventricular Assist Device..... 23 No. 1 in the state for patient survival at one year post-transplant</p> <p>Lung Transplant..... 26 No. 1 in the nation for patient survival at one year post-transplant</p> <p>Thoracic Surgery..... 28 93% of lobectomies for lung cancer performed robotically</p> <p>Limb Care, Wound Healing, Hyperbaric and Dive Medicine..... 30 Our new multiplace hyperbaric chamber allows treatment of 12 patients at once</p> <p>Vascular Surgery..... 32 Serving as a quaternary referral center for complex cases</p> <p>Vein Center..... 34 Growing by hundreds of visits per year treating the full range of venous conditions</p>
---	--

Click to view
all links in
this section



Dear Colleagues,

On behalf of the Frederik Meijer Heart & Vascular Institute, we're excited to share our latest annual report, illustrating a relentless pursuit of the best options for our patients and our unwavering commitment to their care.

We're also pleased to share the big news of our name change from Spectrum Health to Corewell Health. In February 2022, we officially came together with Beaumont Health, a greatly respected system from the east side of Michigan. Together, we are pursuing patient wellness at our core.

At Corewell Health, we are thinking differently about what is possible, and we empower our patients, team members and partners to do the same. When others say no, we keep questioning. When it seems impossible, we say—keep pushing until it isn't. Because at our core, we believe we can. >>

The Fred and Lena Meijer Heart Center is celebrating nearly two decades of advanced heart and vascular care, and has served as the backdrop for many accomplishments.

- In 2010, we performed our first heart transplant and we've now performed more than 200, plus 300 lung transplants. >>
- This past year, our Medical Intensive Care Unit opened at Meijer Heart Center, increasing ICU capacity from 72 to 96 beds and allowing our Cardiothoracic Critical Care Unit to expand from 22 to 36 beds. >>
- Recent research efforts, such as our project to develop robotic cardiovascular capabilities in rural America, have received national attention.

Much of our progress has been fueled by the Frederik Meijer Heart & Vascular Institute, which spurs clinical innovation, cutting-edge research, patient and physician education, and operational and clinical excellence in cardiovascular care.

We invite you to read on and learn about the ways we are growing in our fields and defining new clinical pathways with a clear focus on health equity and preventive medicine.

Sincerely,



Vikram Kashyap, MD, FACS
Frederik Meijer Endowed Chair
Vice President, Heart & Vascular
Corewell Health West



Nancy Schwallier, MPAS, PA-C
Vice President, Heart & Vascular
Corewell Health West



Advanced Heart Failure

Click to view all links in this section



We support our communities by addressing all aspects of heart failure. Depending on the needs of the individual, this may begin with prevention or diagnosis, and include telemedicine, through to device implementation or transplantation.

We utilize the latest device technologies for surveillance of our high-risk patients for earlier and proactive treatment to prevent heart failure, keeping patients out of emergency departments and hospitals whenever possible.

We actively encourage patients to participate in their own care. Functioning together as a united team ultimately allows better quality of life and, in some cases, reduction in overall health care costs.

Expertise

- Advanced invasive hemodynamics
- Advanced outpatient therapy
- Arrhythmogenic right ventricular dysplasia
- Cardiac amyloidosis
- Cardiac sarcoidosis
- Cardiac tumors
- Cardio-obstetrics and postpartum cardiomyopathy
- Chemotherapy cardiomyopathy
- Diastolic heart failure
- Genetic cardiomyopathies
- Heart transplantation
- Hypertrophic cardiomyopathy
- Ischemic cardiomyopathy
- Implantable monitors
- Mechanical circulatory support
- Myocarditis
- Non-compaction cardiomyopathy
- Pulmonary hypertension
- Valvular cardiomyopathy

Training the next generation of heart and vascular specialists is our privilege and duty. In July 2023 we launched an ACGME-approved Subspecialty Fellowship Program in Advanced Heart Failure and Transplant Cardiology, adding to Frederik Meijer Heart & Vascular Institute's four other fellowships in cardiovascular disease, interventional cardiology, and vascular and cardiothoracic surgery.

Patients Actively Managed for Advanced Heart Failure

2020:
2,967

2022:
4,107

Greater Health Equity for Rural Patients

As advanced technology becomes readily available in outlying hospitals, the demand has grown to move critical cardiovascular patients to Meijer Heart Center for surgical intervention. The Aero Med at Corewell Health and Frederik Meijer Heart & Vascular teams are equipped to provide air transport of patients on one or two cardiac support devices. This includes patients supported by ECMO, IABP, Impella or another ventricular assist device.



Introducing The HOPE Clinic

The HOPE (Heart Optimization and Evaluation) Clinic serves patients in the advanced stages of heart failure, with a disease management program to support the complexities of heart failure care.

The HOPE Clinic allows:

- Faster results with our new and prompt panel tests
- A novel Guideline Directed Medication Therapy service
- Options for financial assistance and grant-supported funding

The HOPE Clinic: More Than Just a Name Change.

J Card Fail. (October) 2022 28:1560-1562. [»](#)



Select Publications

Even in Heart Failure, Integrating Palliative Care and Aggressive Medical Therapy Is a Thing.

J Am Coll Cardiol. (July) 2022. [»](#)

Physician Radiation Exposure During Endomyocardial Biopsy and Right Heart Catheterization.

Journal of Cardiac Failure. (April) 2023. [»](#)



2022 recipient of the Gold Honor Roll award from the American Heart Association for achieving a score of 85% or greater on all heart failure achievement measures.

Hypertrophic Cardiomyopathy

The Hypertrophic Cardiomyopathy Association recognizes our program as a Center of Excellence—one of less than 50 in the nation.

Our communities benefit from the highly specialized expertise that comes with a large health system, including physicians, APPs, nurses and a triage team all dedicated to patients who need HCM evaluation.



We Offer

- Specialized HCM echocardiogram and stress testing protocols
- Ambulatory cardiac monitoring
- Advanced cardiac imaging, including cardiac MRI
- Genetic counseling and testing
- Right/left heart catheterizations with advanced hemodynamic assessment
- Septal reduction therapy—septal myectomy and alcohol septal ablation

1,000+

HCM patients and families actively followed

14

Myectomies in 2022

Read More

'God was watching over me'

Greg Ikiebe escaped violence and political unrest in Nigeria when he came to Grand Rapids. But his high blood pressure and heart problems continued to affect his life. David Fermin, MD, FACC, FHFS, cardiologist and director of the hypertrophic cardiomyopathy program, examines Greg after a myectomy to remove extra heart muscle and relieve blood flow obstruction. >>



A Groundbreaking Clinical Trial, VALOR-HCM, Is Improving Lives

The primary objective is to assess the safety and efficacy of adding mavacamten to maximally tolerated medical therapy among patients with obstructive hypertrophic cardiomyopathy. The results indicate that mavacamten improved symptoms and significantly reduced the need for SRT among symptomatic patients with obstructive HCM who were considering SRT. >>

Adult Congenital Heart

Click to view
all links in
this section



The adult congenital team diagnoses, treats and cares for patients with congenital heart disease of all ages to ensure seamless transition from pediatric to adult care.

Dual board-certified cardiologists work in coordination with advanced heart failure, ventricular assist device, pulmonary hypertension and transplant specialists.

Expertise

- 3D printing and EchoPixel imaging
- Advanced heart failure therapy
- Aortic valve disease
- Aortopathies
- Atrial and ventricular septal defect
- Cardiomyopathy/cardiac genetics
- Cardio-obstetrics/prenatal congenital heart disease
- Coarctation of the aorta
- Crisscross heart
- Cyanotic defect
- Double chamber right ventricle
- Double-outlet ventricle
- Ebstein's anomaly
- Heterotaxy syndromes
- Hypoplastic left heart syndrome
- Interrupted aortic arch
- Invasive exercise physiology for Fontan patients
- Isomerism
- Mitral valve disease
- Patent ductus arteriosus
- Pediatric heart transplant
- Percutaneous intervention including transcatheter, pulmonary and tricuspid valve replacement
- Pulmonary valve disease
- Tetralogy of Fallot
- Transposition of the great arteries
- Truncus arteriosus
- Sinus venosus defect
- Single ventricle physiology
- Ventricular inversion



Sihong Huang, MD, hugs patient Betty Houtman

Procedural and Imaging Volumes for Adults

Cardiac catheterizations	66
CPETs	173
ECGs	1,867
EP studies	11
Cardiac MRIs	123
CTs	14

1,870

Adult congenital outpatient visits

A Young Heart in Overdrive

Oliver Aregullin, MD, congenital interventional cardiologist, received compassionate-use clearance from the FDA to place an atrial flow regulator in this special patient's heart. »



Bethany will require specialized congenital cardiac care into adulthood. Her AFR device and complex pulmonary hypertension will receive excellent management with a seamless transition at our Adult Congenital Heart Disease Center.

—Oliver Aregullin, MD 



Top Diagnoses of 2022

- Tetralogy of Fallot
- Congenital aortic valve disease; aortic stenosis and aortic insufficiency
- D-transposition of the great arteries
- Coarctation of aorta
- Atrial septal defect and atrioventricular septal defect



Select Publication

Clinical Applications of Pressure-Volume Assessment in Congenital Heart Disease. JSCAI. (February) 2023. »

Clinical Cardiology and Advanced Imaging



The clinical cardiology team takes care of a wide spectrum of patients with a multitude of cardiovascular conditions and provides imaging services—focusing on the right exam, for the right patient, for the best care.

—Wissam Abdallah, MD

Click to view all links in this section



Clinical Cardiology Expertise

- Cardio-oncology
- Cardio-renal program for pre-renal transplants
- Congestive heart failure management and optimization
- Coronary artery disease management
- Hypertrophic cardiomyopathy
- Hypertension
- Intensive cardiac rehab
- Post-hospital management
- Preoperative evaluation
- Preventive cardiology
- Valvular heart disease management
- Women's health



(L to R) Richard McNamara, MD, David McNamara, MD, and David Cameron, MD

5,061

New clinical cardiology patients

9,288

Individuals served

David McNamara, MD, MPH, cardiologist, received a grant through Spectrum Health Foundation in 2022 to investigate radiation safety through the DECREASE study.



David Fermin, MD, FACC, FHFSa, cardiologist, serves as the principal investigator for multiple clinical trials, including ODYSSEY-HCM , VALOR-HCM and MAVA-LTE

Lakeshore Connection

Our team works with Holland Hospital to care for patients with heart conditions along the lakeshore, allowing for better coordinated care, reduction in cost and improvement in patient experience. In 2022, our transitional heart failure patients had a low readmission rate of 10.4%. A Pulmonary Embolism Response Team was enacted at this location in 2021 and saw growth of 45% in 2022.

Advanced Imaging Expertise

- 3D echocardiography
- Structural/interventional echocardiography
- Transesophageal echocardiography and cardioversions
- Nuclear cardiology
 - SPECT
 - PET for sarcoid and viability assessment
 - Stress PET for coronary artery disease and microvascular disease assessment
- Coronary CT and CT-FFR
- Cardiac MRI, including stress cardiac MRI
 - A magnet within the Meijer Heart Center is dedicated to cardiac imaging
 - Vasodilator and dobutamine stress cardiac MRI
 - Comprehensive cardiomyopathy evaluation, including parametric mapping

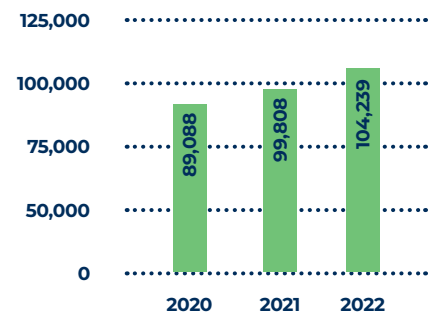
We work to keep care local for patients in our surrounding areas through regional ambulatory cardiovascular care offerings.

AI Spotlight: Assessing Artificial Intelligence Capabilities in Health Care

Closing the Loop in AI, EMR and Provider Partnerships: The Key to Improved Population Health Management? Telehealth and Medicine Today. (November) 2022. [»](#)

Using Artificial Intelligence to Accurately Quantify Coronary Artery Calcifications on Non-Gated Non-Contrast CT Scans to Diagnose Individuals With High Risk Coronary Artery Disease. Journal of the American College of Cardiology. (March) 2022. [»](#)

Cardiovascular Imaging Volumes



Select Publications

Comparison of Radiation Exposure Among Interventional Echocardiographers, Interventional Cardiologists, and Sonographers During Percutaneous Structural Heart Interventions. JAMA Network Open. (July) 2022. [»](#)

Pandemic-Associated Delays in Myocardial Infarction Presentation in Predominantly Rural Counties With Low COVID-19 Prevalence. American Journal of Cardiology. (April) 2022. [»](#)



Clinical cardiology APPs, Paul Albright, PA-C, [»](#) Kevin Nehill, PA-C, [»](#) with advanced heart failure colleague Laura Braunohler, ANP [»](#)



Cardio-Obstetrics

The cardio-obstetrics multidisciplinary team approach ensures comprehensive care for high-risk cardiovascular patients during pregnancy, delivery and the postpartum period. When a fetal anomaly is detected, the family is enrolled in our Family Care Center to ensure lifetime care begins as quickly as possible.

Who Makes Up the Cardio-Obstetrics Team?

- Adult congenital heart
- Hypertrophic cardiomyopathy
- Maternal fetal medicine
- Electrophysiology
- NICU
- Cardiac anesthesiology
- Nursing



Cardio-Oncology

Cancer is scary enough. The last thing we want is for our patients to worry more. Our cardio-oncology team works closely with cancer experts to take care of the patient as a whole, providing:

- Individualized assessment of cancer patients' risk for cardiac toxicity
- Expertise in the various cardiovascular side effects of many cancer therapies
- Specialized imaging to screen and monitor for signs of early cardiac damage
- Close collaboration with the oncology team to minimize cancer treatment interruption

1,019

Cardio-oncology visits



The cardio-oncology team works right alongside our cancer care team to increase our patients' chances of surviving their cancer. More effective and innovative cancer therapies are regularly introduced to keep the fight against cancer raging. Many of these treatments may have cardiac side effects, so a program like this offers our patients a clear advantage.

—Anas Al-Janadi, MD, Vice President, Department Chief, Cancer Health  pictured with Wissam Abdallah, MD, Section Chief, Clinical Cardiology and Medical Director, Cardio-Oncology 



Click to view
all links in
this section



Preventive Cardiology and Cardiovascular Rehabilitation

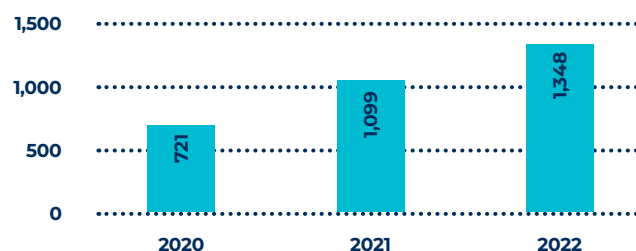
Preventive cardiology is a bridge between the care that a family physician provides and the advanced services of traditional cardiovascular medicine.

We assess behaviors, medical conditions and risk factors that may contribute to the development or progression of cardiovascular disease. A combination of strategies is used to assist in decreasing cardiovascular risk and improving overall health.

Expertise

- Behavior modification
- Digital technologies
- Genetic testing
- Nutrition-based therapy
- Physical conditioning
- Psychological counseling

More Patients Are Seeking Preventive Care



New Hypertension Clinic Better Serves Patients With High Blood Pressure

Patients with uncontrolled hypertension who have tried multiple medications with unsuccessful results will benefit from our new hypertension clinic, where our team focuses on:

- Optimizing medications
- Healthy lifestyle changes
- Weight loss, if needed
- Healthy nutrition
- Exercise



Teaching our patients how exercise and healthy foods help prevent and treat chronic diseases can benefit generations.

This team acts as a link between the patient and their primary care physician to help improve control of blood pressure. Once this goal is reached, patients resume follow-up care with their primary provider.

Cardiovascular Rehabilitation

Pairing exercise with education equips our patients with the information, tools and confidence to improve their cardiovascular health, physical function and quality of life.

New in 2022 »»

We are now offering Pritikin Intensive Cardiac Rehabilitation, a comprehensive lifestyle change program to improve cardiovascular health by teaching patients important skills based on three pillars:

1. Safe, effective exercise
2. A balanced eating plan based on minimally processed, whole foods like fruits, vegetables, whole grains, beans and sensible amounts of lean meat
3. A healthy mindset that fosters healthy behaviors

Qualifying Conditions

- Angioplasty
- Chronic systolic heart failure
- Coronary artery bypass surgery
- Heart attack
- Heart or heart-lung transplants
- Heart valve repair or replacement
- Stable angina

We Also Offer


- Enhanced external counterpulsation
- Exercise programs for:
 - Postural orthostatic tachycardia syndrome
 - Peripheral artery disease
 - Metabolic wellness
- Health coaching



It's Proven to Work



Leading medical journals have published more than 100 peer-reviewed studies that have validated the Pritikin lifestyle program's efficacy in addressing heart disease, as well as a variety of other health conditions and diseases.

–Thomas Boyden, MD, 
Medical director for preventive cardiology and cardiac rehabilitation



Select Publications

Understanding baseline physical activity in cardiac rehabilitation enrollees using mobile health technologies. Circulation: Cardiovascular Quality and Outcomes. (May) 2022. »»

Virtual AppLication-supported Environment To INcrease Exercise (VALENTINE) During Cardiac Rehabilitation Study: Rationale and Design. American Heart Journal. (June) 2022. »»

Electrophysiology

Click to view
all links in
this section



Our electrophysiology team is the largest of its kind in Michigan, and includes board-certified electrophysiologists, APPs, a skilled team of cardiac device specialists, cardiovascular technologists and nurses, nurse care coordinators, and a knowledgeable support team of medical assistants and schedulers.

Each year, our crew evaluates, treats and manages more patients experiencing arrhythmias than anywhere else in the state. We also offer the only dedicated atrial fibrillation program in West Michigan with a full range of treatment options.

We Treat

- Advanced heart failure/resynchronization therapy
- Arrhythmia care for patients with complex congenital heart disease or cardiomyopathies
- Atrial fibrillation
- Atrial flutter
- Atrial tachycardia/supraventricular tachycardia
- AV heart blocks/sick sinus syndrome
- Inherited arrhythmias (long, short QT, Brugada syndrome)
- Palpitations
- Sudden cardiac death prevention
- Syncope
- Ventricular arrhythmias/ventricular tachycardia
- Wolff-Parkinson-White syndrome

We Offer

- Cardioversion
- Complex catheter ablations (radiofrequency and cryoablation)
- Electrical device implantation, including leadless pacemakers, cardiac resynchronization devices, and implanted loop recorders
- Genetic testing and management of inherited arrhythmia syndromes
- Hybrid surgical ablations with cardiothoracic surgery
- Laser lead extraction
- Left atrial appendage occlusion implantation
- Medication therapy and anti-arrhythmic medication management
- Risk factor and lifestyle modification

1,000+ Total Watchman procedures performed

75

Lead
extractions

1,347

Ablation
procedures

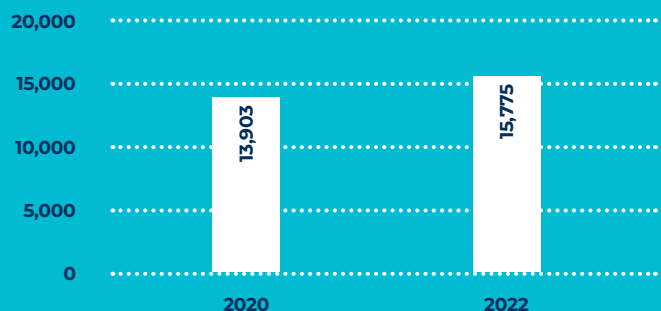
1,884

Device
procedures



8,900+

Patients
monitored

EP Procedure Volumes



National Pickleball Competitor's A-fib Treatment Experience

Cardiologist Nagib Chalfoun, MD  used the Convergent™ procedure to treat Jeffrey Howlett's long-standing, persistent A-fib. He's hopeful that because of this treatment, Jeff will be able to continue with minimal medications and maintain his active lifestyle and pickleball career. 



Algorithmic Approach to A-fib Greatly Reduces Hospital Admissions

When a patient comes to the ED with new A-fib, many institutions admit those patients and proceed to evaluation. Our pathway uses an algorithmic approach to treatment in the ED, with the patient then scheduled in the office within three days of their visit for further evaluation and long-term planning. This approach is effective, safe and avoids unnecessary admissions—a win for all.



We are the only hospital in Michigan with ACC Electrophysiology Lab Accreditation

75%


Of patients discharged with short-term follow-up plan

25%

Patients admitted


1,500

Saved admissions in 2022 alone

We are part of the CATALYST trial to evaluate the safety and effectiveness of the Amulet LAA occluder compared to NOAC therapy for patients with non-valvular AF at increased risk for ischemic stroke and who are recommended for long-term NOAC therapy. 

Select Publications

A cost comparison of atrial fibrillation monitoring strategies after embolic stroke of undetermined source.

American Heart Journal Plus: Cardiology Research and Practice Vol 21. (September) 2022. 

Optimizing care of patients with right bundle branch block undergoing transcatheter aortic valve replacement.

Cardiovascular Revascularization Medicine. (March) 2022. 

Quality of life after initial treatment of atrial fibrillation with cryoablation versus drug therapy. Heart Rhythm. (February) 2022. 

Interventional Cardiology

Click to view
all links in
this section



With cutting-edge technology, groundbreaking research and patient centered care, our multispecialty team-based model allows the safest and most effective care plans to unfold for each patient.

Expertise

- Percutaneous coronary intervention
 - Chronic total occlusion
 - High-risk interventions
 - Impella supported interventions
 - ST-elevation myocardial infarction
 - Robotic
- Coronary microvascular physiology
- Intracoronary imaging—intravascular ultrasound, optical coherence tomography and near-infrared spectroscopy
- Radiation safety



A Meeting of the Minds – Our Team Approach to Heart Care

Our multidisciplinary heart team has reviewed 2,642 patients since implementation in 2015. Providers meet each week to collect incomparable expert analysis for cardiac patients.

1,460

PCIs

PCI at the Meijer Heart Center is performed with high use of intracoronary imaging to ensure an optimal result. Routine use of imaging to guide PCI has been shown to improve outcomes after stenting.

CardioSmart® American College of Cardiology® Find Your Heart a Home database

318



STEMIs

We treat one of the highest volumes of STEMI patients in the state.

105

Impella devices

Our Chronic Total Occlusion Program Is Growing

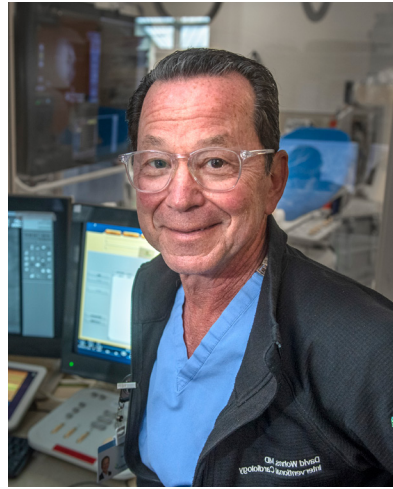
A decade ago, someone with chronic total occlusion would not have been considered a candidate for a stent. David Wohns, MD,  and Kevin Wolschleger, MD,  together with their dedicated team, built the Meijer Heart Center chronic total occlusion program over the past nine years and have performed more than 500 of the highly specialized procedures.

'We are so blessed'

Don Westhouse survived sudden cardiac arrest while water skiing. With Don's stent successfully placed, and with the implanted defibrillator monitoring his heart,



"Don's prognosis is excellent," Dr. Wohns said. "He is safer than he was before this event." »



Technology Spotlight

Treating a New Subset of Patients

"For patients with normal angiography, we now have technology to evaluate the microvasculature which can cause angina in up to 50% of patients with chest pain and non-significant coronary atherosclerosis. This new technology allows us to identify and treat a new subset of patients who were previously suffering from angina without identifiable cause."

Timothy Joseph, MD, Araya Negash, DO and **Ryan Madder, MD**, were the first to demonstrate the feasibility of using a robotic system to perform coronary angiography on patients. This study was made possible by a generous donation from members of our community.

Robotically performed diagnostic coronary angiography. Catheter Cardiovasc Interv. (August) 2022. »



Timothy Joseph, MD, Interventional Cardiology

Can We Save a Person's Heart From 500 Miles Away Using Robots? We Can.

Ryan Madder, MD, is managing a large research grant from the Helmsley Charitable Trust to study the treatment of heart attacks and strokes using telerobotics.

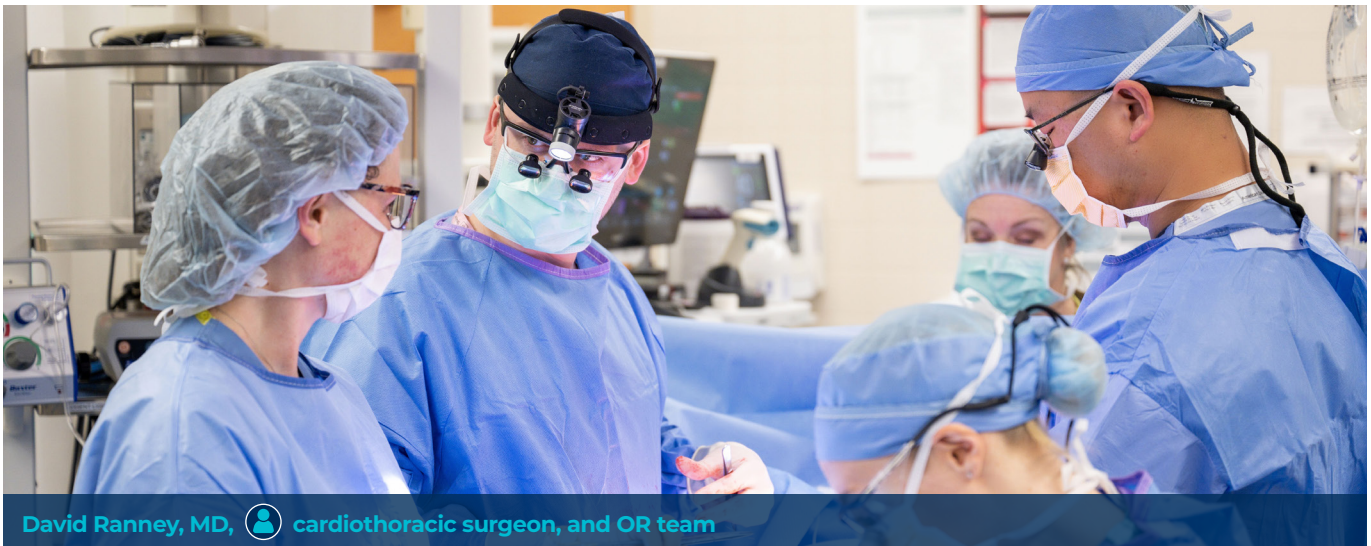


Cardiothoracic Surgery

Click to view
all links in
this section



Corewell Health has the most experienced cardiothoracic surgery team in the state of Michigan, and performs the highest volume of adult open-heart surgeries. This experience translates into better health outcomes for our patients—who are at the core of all that we do.



David Ranney, MD,  cardiothoracic surgeon, and OR team

Expertise

Thoracic Aneurysm

- Aortic aneurysm repair
- Aortic dissection

Heart Valve Surgery

- Aortic valve replacement
- Mini aortic valve replacement
- Mitral and mini mitral valve repair/replacement
- Redo-aortic valve and root reconstruction
- Redo-mitral repair/replacement
- Robotic mitral valve repair
- Ross procedure
- Transcatheter aortic and mitral valve replacement
- Tricuspid valve repair/replacement
- Valve endocarditis
- Valve-sparing root replacement

Coronary Artery Bypass Graft

- High-risk coronary artery bypass surgery
- Multi-arterial revascularization
- Off-pump coronary artery bypass
- Robotic anomalous pulmonary venous return
- Robotic coronary artery bypass surgery with lung transplantation

Additional Cardiac Surgeries

- Atrial ablation
- Atrial septal defect
- Constrictive pericarditis
- Convergent
- Heart transplant
- Impella
- Left atrial appendage closure
- Lung transplant
- MAZE procedure
- Myectomy
- Ventricular assist device
- Pericardial window
- Pulmonary vein isolation
- Valvular carcinoid
- Ventricular septal defect

1,577

Cardiac cases

726

CABG

143

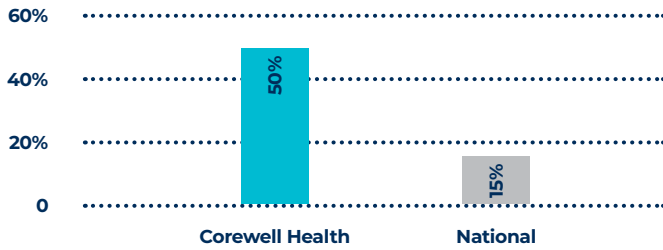
Thoracic Aortic Aneurysm

184

Traditional AVR

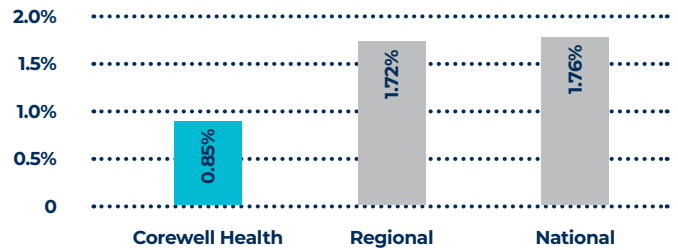
Robotic surgery is used for isolated mitral valve repair at more than 3 times the national rate.

Robotic surgery used for isolated mitral valve repairs




Our in-hospital, observed mortality rate is less than half of the national and regional benchmarks.

Isolated CABG in-hospital observed mortality

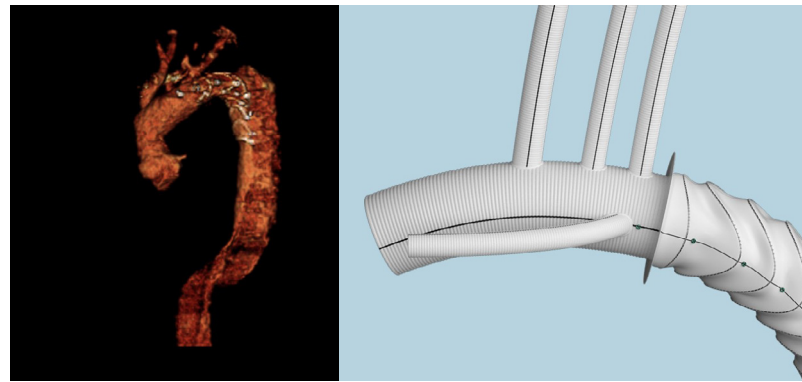


Technology Spotlight


Our First Thoraflex Hybrid Frozen Elephant Trunk (Terumo) Surgery

The U.S. Food & Drug Administration granted Breakthrough Device Designation for Terumo in 2020. Stephane Leung, MD,  successfully utilized the device for a patient with complex aortic arch disease, allowing everything the patient needed to be completed at a primary operation.

Recent aortic guidelines published in 2022 have now provided an indication for use of this technology in Type A dissections with malperfusion of distal organs, a situation that is usually met with more than 50% mortality.



'It was urgent'

After routine testing, Jim discovered he had an obstructed artery that required urgent open-heart surgery. A cardiac catheterization procedure revealed that one of his arteries—the one associated with a type of cardiac event called a widowmaker—was 95% obstructed. Jim went from test results to surgery in 13 days, with appointments happening either virtually or at care campuses close to his home. 



We are the only health system in Michigan with the HeartCARE Center National Distinction of Excellence.



We have an STS 3-Star Rating, the highest possible rating from The Society of Thoracic Surgeons for quality of CABG surgery as well as CABG + AVR surgery.

Cardiothoracic Critical Care Expands

We have transformed the eighth floor of our Fred and Lena Meijer Heart Center to now feature 24 single-occupancy Medical Intensive Care Unit rooms, expanding access to this high-acuity care. The expansion allows our Cardiothoracic Critical Care Unit to increase from 22 beds to 36 beds. >>



Our operations leaders provide tremendous support to our clinical teams, and implement the strategies that allow us to expand options for our patients.



(L to R) Adam Mix, Thomas Fluit, Jason Dettwiler, Nancy Schwallier, Christine Bopp and Samantha Dalman

Select Publications

Randomized Feasibility Trial of Prophylactic Radiofrequency Ablation to Prevent Atrial Fibrillation After Cardiac Surgery. The Journal of Thoracic and Cardiovascular Surgery. (March) 2023. >>

Freestyle Aortic Bioprostheses in Patients 60 Years old and Younger. Seminars in Thoracic and Cardiovascular Surgery. (Autumn) 2022. >>

Structural Heart and Valve

The Structural Heart and Valve Center brings groundbreaking advances to those in our communities requiring specialty services. We offer the latest options for valve replacement and repair as well as treatments for septal defects and stroke prevention for atrial fibrillation.

Expertise

- Balloon aortic valvuloplasty
- Balloon mitral valvuloplasty
- Left atrial appendage occlusion in A-fib patients
- Patent foramen ovale and atrial septal defect percutaneous closure
- Percutaneous mitral valve clip placement (MitraClip)
- Transcatheter aortic valve replacement in native and failed surgical bioprosthetic
- Transcatheter mitral valve replacement in native and failed surgical bioprosthetic
- Ventricular septal defect repair post-myocardial infarction

Volumes

341

TAVR

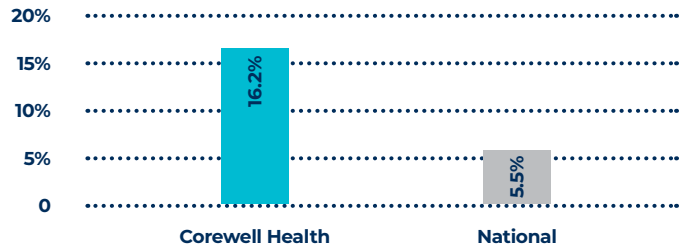
26

MitraClip

9

TMVR

TAVR Inoperable/Extreme Risk Category

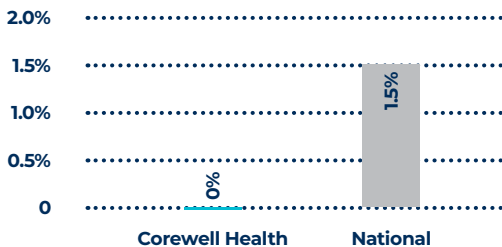


10/1/2021-9/30/2022

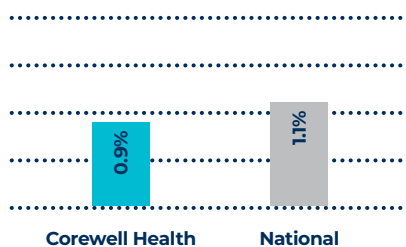
Mortality Rates

Better than national

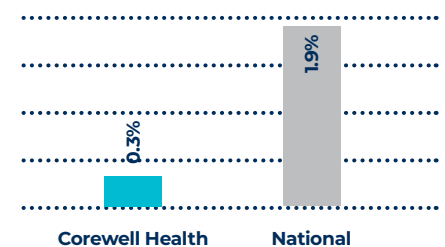
MitraClip Discharge



TAVR In Hospital Observed



TAVR 30-Day



R4Q (Rolling 4 Quarters) 2022 Q3 Data



I am fortunate to follow patients through all stages of their journey within our structural heart clinic. It is so rewarding to see how their quality of life improves following their interventions.

—Rachel Rogers PA-C, Structural Heart



Meet One of the Earliest Participants of TAVR

Sister Teresa Houlihan had aortic valve failure treated by our team with TAVR technology as part of a research study. The procedure allowed her to avoid open heart surgery, recover quickly and get back to an active life. Sister Houlihan's participation in the study paved the way for the widespread use of TAVR.



William Merhi, DO, Interventional Cardiologist

Furthering TAVR Research to Help More Patients

Medtronic Evolut™ EXPAND TAVR II Pivotal Trial

The purpose of the trial is to explore the treatment of moderate aortic stenosis with early TAVR before it becomes severe. Early treatment may help preserve cardiac function, prevent or slow further deterioration, and prevent death in some patients.



We are the only health system in Michigan with ACC Transcatheter Valve Certification.



Select Publications

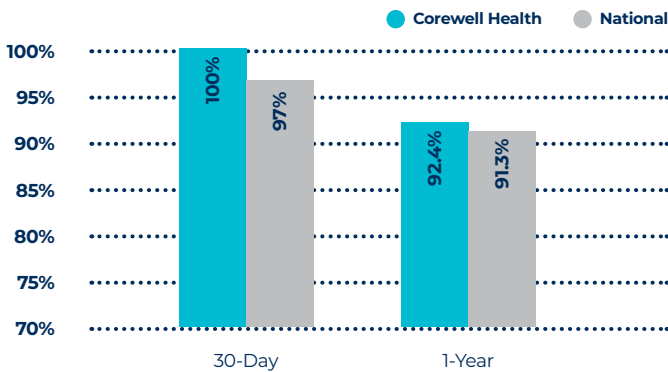
Structural Valve Deterioration After Self-Expanding Transcatheter or Surgical Aortic Valve Implantation in Patients at Intermediate or High Risk. JAMA Cardiol. (December) 2022.

Self-expanding Transcatheter vs Surgical Aortic Valve Replacement in Intermediate-Risk Patients 5-Year Outcomes of the SURTAVI Randomized Clinical Trial. JAMA Cardiol. (August) 2022.

Heart Transplant and Ventricular Assist Device

The Richard DeVos Heart Transplant Program has performed more than 200 transplants since inception in 2010. Participation in United Network for Organ Sharing has allowed an increase in transplanted organs. We are proud of our survival outcomes, made possible through participation in innovative research, rapid clinical evaluations, the practiced skill of our team and the attention of personal transplant coordinators.

Heart Transplant Survival Rates



January 2023 SRTR Report, data ending October 31, 2022.

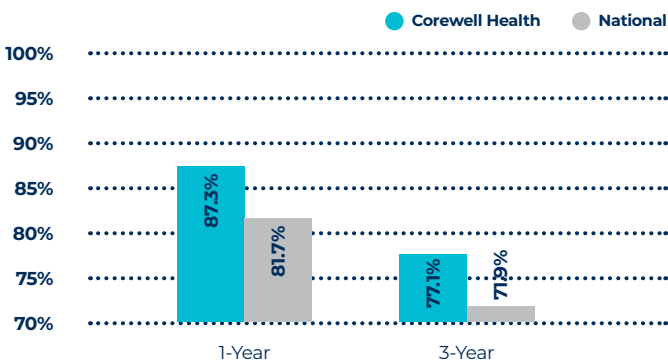


Better than national survival rates through year 1, and No. 1 in Michigan

Corewell Health’s Helen DeVos Children’s Hospital has been approved by the United Network of Organ Sharing to begin pediatric heart transplants. »»

We bring our patients the latest VAD technology and expertise to successfully implant devices. Our standardized processes allow for streamlined testing and evaluation by multiple experts to give quick answers regarding candidacy for LVAD placement sooner. We are the leader in minimally invasive LVAD implantation with more than 500 complete to date.

LVAD Survival Rates



STS Intermacs Implant and event dates: June 23, 2006, to September 30, 2022.

Better Than National Survival Rates Through Year 1

Marzia Leacche, MD, Endowed Chair for the Richard DeVos Heart Transplant and Mechanical Circulatory Support programs, has led a national registry development for minimally invasive LVAD implantation.

97.4%

Patient satisfaction rate

Expertise

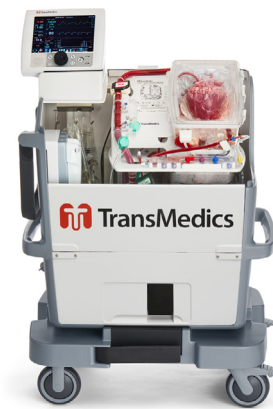
- Advanced hemodynamic evaluation
- Advanced transplant immunology and pharmacology
- Cardiac biopsy
- Heart and lung transplantation
- HLA immunogenetics
- Next-generation and minimally invasive ventricular assist devices
- Noninvasive testing for heart transplant surveillance and rejection
- Pediatric heart transplantation
- Percutaneous mechanical circulatory support
- Pulmonary hypertension



Technology Spotlight

Paragonix SherpaPak™ is used to transport hearts while monitoring and maintaining optimal temperature, giving our surgeons and patients the best possible chance of success.

Transmedics Organ Care System™ enables organ optimization and assessment prior to implant to reduce the time that the organ is not perfused outside the body. This technology allows for further travel and expansion of the donor pool.



ECMO

Extracorporeal membrane oxygenation provides support for patients in shock with failing heart or lungs and expands the number of patients that can be candidates for surgery.

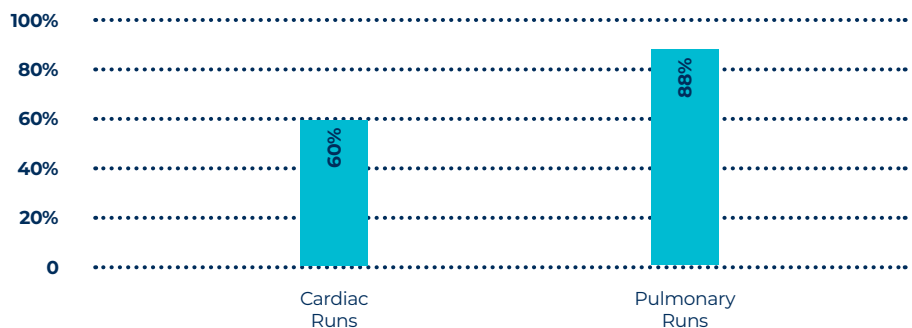
60

Cardiac runs

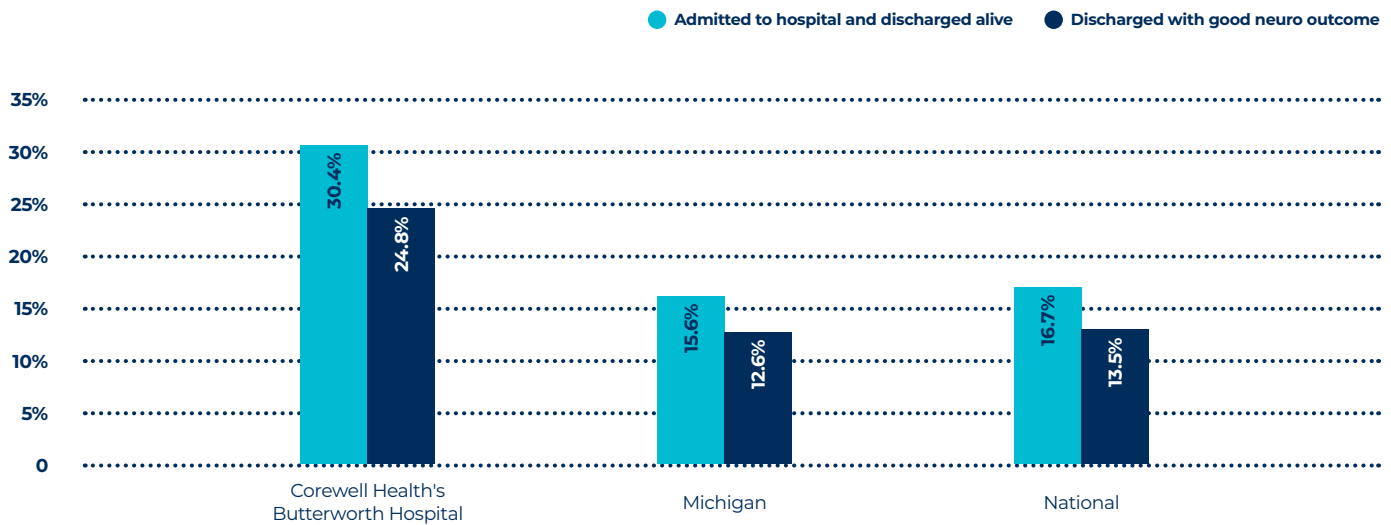
18

Pulmonary runs

Survival to Discharge Rates



Cardiac Arrest Survival Rates



Cardiac Arrest Registry to Enhance Survival_CARES
2022 Hospital Benchmarking Report (Non-Traumatic Etiology)

'Forever changed'

After a couple of severe medical events, Tim was diagnosed with arrhythmogenic cardiomyopathy, caused by a rare genetic mutation. Under the care of the Corewell Health team, he was able to undergo a successful heart transplant on New Year's Eve. >>



Select Publications

HFSA Expert Consensus Statement on the Medical Management of Patients on Durable Mechanical Circulatory Support. Journal of Cardiac Failure. (Feb) 2023. >>

US Multi-Center Analysis of the Global Utilization and Registry Database for Improved Heart Preservation (GUARDIAN) Registry: 1-Year Transplant Survival Analysis. Journal of Heart and Lung Transplantation. (April) 2022. >>

Extracorporeal membrane oxygenation as a bridge to advanced heart failure therapies. Journal of Heart and Lung Transplantation. (March) 2023. >>

Lung Transplant

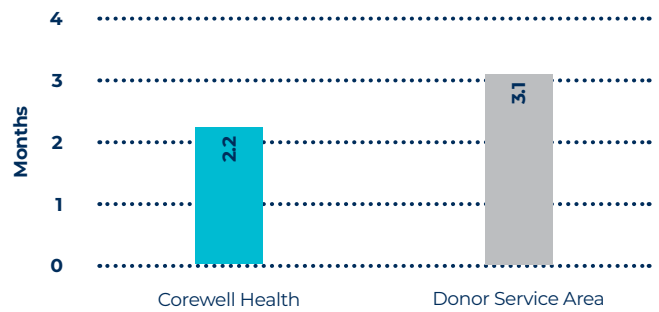
We are the only health system in West Michigan to perform lung transplants and treat the highest volume of patients in the state. We're proud that our patients experience the best survival outcomes in the nation at one year. Choosing us for care means access to a program with rapid clinical evaluations, innovative research, top outcomes and personal transplant coordinators to help navigate a complex process.

Expertise

- Advanced transplant immunology
- Combined lung transplant and coronary artery bypass
- Complex and re-transplantation
- COVID-19 acute respiratory distress syndrome
- COVID-19 pulmonary fibrosis
- ECMO
- Emphysema
- HLA immunogenetics
- Interstitial lung disease
- Minimally invasive lung transplantation
- Patients older than 65
- Percutaneous mechanical circulatory support
- Pulmonary fibrosis
- Pulmonary hypertension

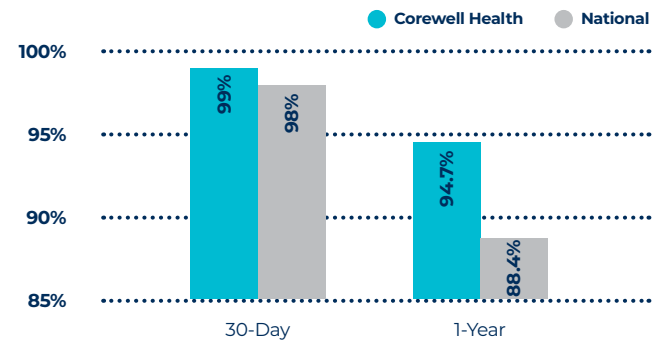


Median Time to Transplant



January 2023 SRTR Report, data ending October 31, 2022

Lung Transplant Survival Rates



January 2023 SRTR Report, data ending October 31, 2022

300+

Transplants since 2013

➔ **Best one-year outcomes in the country**

A Milestone to Celebrate— 300 Lung Transplants

In February 2023, the State of Michigan issued a Special Tribute to Corewell Health's Lung Transplant Program for providing the best possible care for our patients as we celebrated the milestone of serving our 300th patient with the latest medical technology and care. »

Dennis Bergstrom underwent the 300th procedure, and would not have been considered a candidate for transplantation at many programs because he is older than 65. Read more about Dennis' story and how he is now breathing easy. »



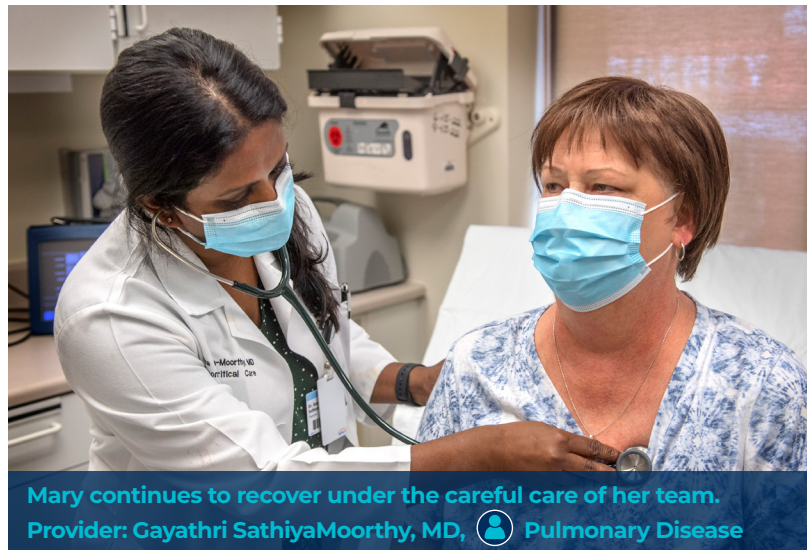
Edward Murphy, MD, » and Dennis and Diane Bergstrom

Technology Spotlight

- Ex vivo lung perfusion
- Cryoablation during lung transplant to reduce post-op pain and opioid use
- Double-vessel CABG during lung transplant
- Transmedics organ care system

'It's just amazing how I'm feeling'

Mary Heeren's health was rapidly declining due to pulmonary fibrosis and coronary disease. After connecting with our team, she underwent a double lung transplant and double heart bypass, becoming the first patient at Corewell Health to have both procedures done simultaneously. »



Mary continues to recover under the careful care of her team.
Provider: Gayathri Sathiyamoorthy, MD, » Pulmonary Disease

Select Publication

Lung Transplantation for COVID-19-Associated Lung Injury (CALI): An International Registry. Open Forum Infect Dis. (December) 2022. »

Thoracic Surgery

The Thoracic Surgery team serves our communities by providing general thoracic surgeries to highly complex cases including lung transplantation, and innovative cancer surgery techniques and treatments.

Our multidisciplinary team approach brings together the disciplines of thoracic surgery, pulmonology, radiology, medical and radiation oncology, pathology, and nurse coordination to create a treatment plan that will bring forward the best possible outcomes.



Minimally invasive robotic surgery helped hairstylist Carol Sibley-Weaver with a faster recovery >>

Expertise

- Airway reconstruction
- Chest wall tumors
- Decortication
- Eloesser flap
- Esophagectomy
- Hiatal or paraesophageal hernia
- Lobectomy
- Open thoracotomy
- Pleurodesis
- Plication for diaphragm paralysis
- Pneumonectomy
- Robotic thoracic surgery
- Segmentectomy
- Thymectomy
- Wedge resection

Advanced Lung Disease and PERT Team

Our pulmonologists collaborate with cardiothoracic surgeons to perform minimally invasive thoracic surgery for patients with advanced lung diseases. In special cases, the Pulmonary Embolism Response Team (PERT) gathers to optimize care in the acute phase for those with intermediate and high-risk PE.

4,800+

Lung cancer screenings

387

General thoracic surgery procedures

93%

Lobectomy procedures for lung cancer performed robotically



Charles Willekes, MD,  performing a robotic lobectomy and David Drew, PA-C,  at bedside

Read More

Gustavo Cumbo-Nacheli, MD, [»](#) pulmonologist and critical care physician, performed a robot-assisted bronchoscopy on patient Deb Borst. During that procedure, a small spot on the lower left lobe of her lung was identified as cancerous. Together with Geoffrey Lam, MD, cardiothoracic surgeon, they came up with a plan for robot-assisted surgery to remove the tumor. [»](#)



Charles Willekes, MD, Geoffrey Lam, MD, [»](#) and Edward Murphy, MD, [»](#) thoracic surgeons

Select Publications

An Unusual Presentation of Pulmonary Neuroendocrine Hyperplasia in a Patient with Mycobacterium. Am J Respir Crit Care Med. (May) 2022. [»](#)

Adequate lung cancer surgery lymphadenectomy within a statewide quality collaborative: Quality improvement in action. J Thorac Cardiovasc Surg. (October) 2022. [»](#)

Limb Care, Wound Healing, Hyperbaric and Dive Medicine

Click to view all links in this section



Our limb care and preservation team includes vascular surgeons, podiatrists, and wound and hyperbaric providers. This dynamic team comes together to provide cutting-edge limb salvage options with the goal of improved quality of life for our patients facing the prospect of amputation.

We know that no two wounds are exactly alike, which is why our specialists get to know each patient's health circumstances to develop customized plans, ensuring wounds heal as quickly as possible.

Virtual visits are available, along with telemedicine visits for inpatient consults at our regional hospitals and facilities. A regional wound clinic in Greenville, Michigan, also helps with keeping care close to home for our patients.

Expertise

- Catalog of advanced skin substitutes
- Commercial and recreational dive physicals
- Compound pharmacy partnership for customized medicine
- Hyperbaric medicine for emergency and critical care
- Microgen bedside DNA testing
- Multiple advanced wound healing products



New hyperbaric and dive medicine chamber demonstration

Wound Healing Program Continues to Grow

1,723

Patients served in 2022

↑ 33.8% increase from 2019

17

Days from wound consultation to vascular intervention (on average)

↓ 89% decrease from 44 days in 2018

Read More

Relief After Three Years of Persistent and Painful Wounds



“She never gave up,” he said of Dr. Orwig. “I thought for sure I was done, and I was going to have to live with my wounds for the rest of my life.”

Read more about Rob Olewinski’s experience with Drue Orwig, DO  and the wound healing team. 



As the only 24-7 program in the state of Michigan, our hyperbaric and dive medicine team is ready to receive emergent patients.

New Chamber Increases Patients’ Access to Hyperbaric Treatments

Our new multiplace hyperbaric chamber went into operation last June, doubling patient access to this treatment. The ability to interact hands-on with our patients allows us to better serve pediatric, critical, bariatric and claustrophobic patients.

We are now prepared to service a catastrophic event requiring hyperbaric treatment for up to 12 patients at once. 



Vascular Surgery

Click to view
all links in
this section



Our vascular team combines experience with advanced technologies to achieve clinical excellence, from testing and diagnosis to treatment and rehabilitation. Whether a patient needs emergency or routine care, we are here to help.

Expertise

- Vascular and endovascular surgery
- Aortoiliac disease
 - Aortic aneurysm and dissection
 - Aortic stenosis
- Arteriovenous access/abnormality
 - Arteriovenous malformation
 - Fistula creation and fistula repair
- Carotid disease
 - Carotid artery stenosis and dissection
 - Vertebral artery stenosis
- Mesenteric artery disease
- Peripheral arterial disease
 - Raynaud’s disease
- Renal artery disease
- Compression syndromes
 - Nutcracker syndrome
 - Thoracic outlet syndrome

10,568

Vascular imaging studies

1,892

Total vascular procedures

67

Endovascular aneurysm repairs

161

Carotid endarterectomies

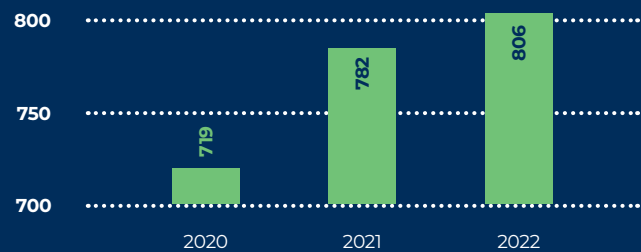
68

Open abdominal aortic aneurysm repairs

32

Transcarotid artery revascularizations
A 4.5-fold increase over 2021

Vascular Admissions



First in Michigan to Use New Thoracic Branch Device Outside Clinical Trials

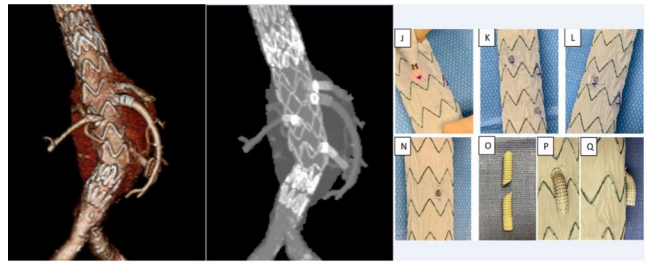
The newly FDA-approved GORE TAG Thoracic Branch Endoprosthesis device allows for one operation to both repair an aneurysm and ensure perfusion to the left arm is kept intact. A patient came to see Eanas Yassa, MD, vascular surgeon, with a new finding of an eccentric aneurysm in the descending thoracic aorta. The aneurysm was close to a major branch vessel to the left arm and would normally require two surgeries in close sequence to appropriately treat the area of concern. Patients who are good candidates like this one now benefit from one surgery instead of two, a less lengthy hospital stay and generally fewer complications.



Andrew Kimball, MD,  and Eanas Yassa, MD, 
vascular surgeons


Fenestrated EVAR

Physician-modified endografts that are able to be back-table modified to have fenestrations or branches allow for similar results to modern, custom-made devices. The modified devices are able to be prepared in less than an hour compared to the six- to 12-week wait for custom device production. We are seeing improved immediate peri-operative mortality for those with symptomatic or ruptured thoracoabdominal aortic aneurysms, and have increased the number of patients who are able to undergo repair through use of the new devices.




**More than 30 years
of accreditation**

Nursing Excellence Recognized


Sheri Olsen, BSN, RN, nursing team lead, received national recognition by the Society for Vascular Nursing for making a positive impact in her career as a vascular nurse. Sheri works closely with Christopher Chambers, MD,  and the two of them together have led many improvement efforts for our vascular surgery patients.



Read More

Daniel has Marfan syndrome, a rare connective tissue disorder, which has caused him to undergo three heart-related surgeries by age 20. Despite this, he remains positive and involved in activities such as golf and singing, while also giving back to his community through tutoring and volunteering. We continue to monitor his care and work together to avoid future heart problems. 



Daniel with vascular surgeon Jason Slaikeu, MD, RPVI 

We participate in BMC2 and VQI registries

Research

A primer on cohort studies in vascular surgery research. Seminars in Vascular Surgery. (December) 2022. 

Vascular surgery resident Jake Nicholson, DO, is recipient of the Grand Rapids Resident Research Scholarship through his research on the role of endovascular and medical intervention in mycotic aortic aneurysms and aortic stent grafts.

Vein Center

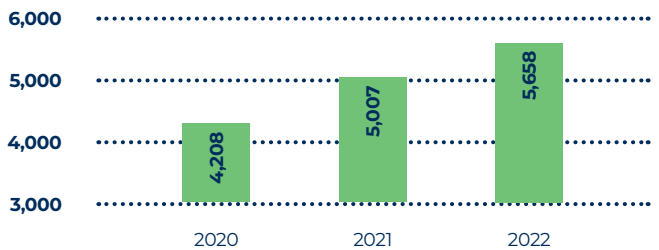
At the Vein Center, we specialize in varicose veins, spider veins, blood clots, and other circulatory or vein-related conditions, and we provide personalized plans for treatment. Most procedures are performed in-office and are minimally invasive, which means no downtime for our patients.

Expertise

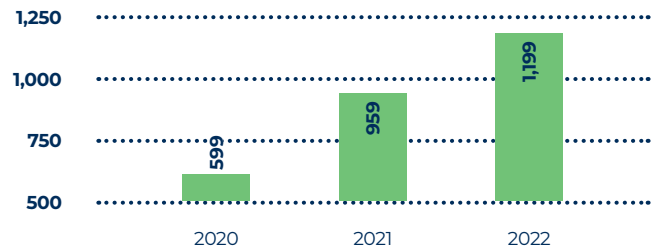
- Venous insufficiency/venous ulcer/varicose veins
 - Phlebectomy
 - Radiofrequency ablation
 - Ultrasound-guided sclerotherapy
 - Varithena®
 - VenaSeal™
- Venous thrombosis
 - Acute deep vein thrombosis
 - Chronic deep vein thrombosis
 - Superficial thrombophlebitis
- Other venous conditions
 - Iliac vein compression (May-Thurner syndrome)
 - Pelvic vein insufficiency (pelvic congestion syndrome)
- Lower extremity lymphedema
 - Lymphedema physical therapy
 - Phlebolympheidema
- Cosmetic services
 - Cosmetic laser treatment
 - Cosmetic sclerotherapy
 - Facial veins
 - Hyperpigmentation
 - Spider veins (telangiectasia)

Vein Center and Deep Vein Thrombosis Office Visits Have Increased by Several Hundred Each Year

Vein Center Office Visit Growth



DVT Clinic Visit Growth



The increase in DVT clinic visits keeps patients in an outpatient setting and out of the ED.



“Waiting a few days to get it checked out? That was not the smartest thing I’ve ever done.” »



David Bell has venous thromboembolism, which often develops in deep leg veins.

Phlebolympheidema


The Vein Center partners with our Lymphedema Clinic to provide on-site evaluation and management of lower extremity phlebolympheidema—the leading cause of lower extremity lymphedema.

Cosmetic Services

Cosmetic care is available after medical procedures are complete, or for those who don't require medical procedures but have cosmetic vein concerns. Complimentary in-person or virtual consultations drive a personal cosmetic care plan.



Select Publication

The Healthy Veins Book, Understanding Varicose Veins and Leg Swelling. Published by American Venous Forum. Chapter 12 on Sclerotherapy authored by Jennifer Watson, MD, RPVI,  vascular surgeon. [»»](#)

Sclerotherapy is an injection into the veins that seals the inside wall of the vein. The injected vein closes and fades from visibility.



Free Venous Screenings

Chronic venous insufficiency is a condition that can progress with little warning, yet is relatively easy to identify with a noninvasive ultrasound screening. Corewell Health offers free venous screenings scheduled through MyChart or by calling 616.391.VASC. [»»](#)



Our Vein Center was the first Intersocietal Accreditation Commission-accredited vein center in West Michigan. IAC accreditation indicates a dedication to achieving the highest standards of patient care and an unmatched commitment to quality and safety.

Corewell Health's Cardiovascular Referral Guide

Advanced Heart Failure

855.7MYHEART (855.769.4237)
EPIC REF: 1006

- Sangjin Lee, MD, Section Chief, Advanced Heart Failure
- Michael Dickinson, MD
- David Fermin, MD
- Matthew Gonzalez, MD
- Ryan Grayburn, DO
- Milena Jani, MD
- Renzo Loyaga Rendon, MD

Clinical Cardiology and Advanced Imaging

855.7MYHEART (855.769.4237)

- Wissam Abdallah, MD, Section Chief, Clinical Cardiology and Advanced Imaging
- William Frauenheim, MD, Section Chief, Lakeshore
- Thomas Boyden, MD
- David Cameron, MD
- Lynn Cronin, MD
- Jeffrey Decker, MD
- Laura Franey, MD
- Keith Frank, DO
- James Grove, MD
- Victor Hajjar, MD
- Mohamad Kenaan, MD
- John Key, DO
- David Langholz, MD
- Ali Mahajerin, MD
- David McNamara, MD
- Michael McNamara, MD
- Richard McNamara, MD
- John Mulligan, DO
- Eric Stuart, MD
- Jose Tan, MD
- Michael Vredenburg, DO

Preventive Cardiology and Cardiovascular Rehabilitation

855.7MYHEART (855.769.4237)
EPIC REF: 1006

- Thomas Boyden, MD

Electrophysiology

855.7MYHEART (855.769.4237)
EPIC REF: 1006

- Andre Gauri, MD, Section Chief, Electrophysiology
- Alfred Albano, MD
- Michael Brunner, MD
- Nagib Chalfoun, MD
- Musa Dahu, MD
- Sanjay Dandamudi, MD
- Wassim Jawad, MD
- Sinan Tankut, MD

Interventional Cardiology

855.7MYHEART (855.769.4237)
EPIC REF: 1006

- David Wohns, MD, Division Chief, Cardiology
- J. Stewart Collins, MD, Section Chief, Cardiovascular Medicine
- Ryan Madder, MD, Section Chief, Interventional Cardiology
- Duane Berkompas, MD
- Gregory Bernath, MD
- John Gribar, MD
- Mark Jacoby, MD
- Timothy Joseph, MD
- Marcel Letourneau, DO
- William Merhi, DO
- Araya Negash, DO
- Kevin Wolschleger, MD

Cardiothoracic Surgery

616.459.7258 | EPIC REF: 1006

- Tomasz Timek, MD, Division Chief, Cardiothoracic Surgery
- Charles Willekes, MD, Section Chief, Cardiothoracic Surgery
- Justin Fanning, MD
- Marzia Leacche, MD
- Stephane Leung Wai Sang, MD
- Edward Murphy, MD
- John Paris, MD
- David Ranney, MD
- Philippe Tremblay, MD

Structural Heart and Valve

616.391.9415 | EPIC REF: 1006

- Duane Berkompas, MD
- Justin Fanning, MD
- Stephane Leung Wai Sang, MD
- William Merhi, DO
- David Ranney, MD

Heart Transplant and Ventricular Assist Device

616.391.2802 | EPIC REF: 867

- Marzia Leacche, MD, Section Chief, Heart Transplant and Mechanical Circulatory Support
- Michael Dickinson, MD
- David Fermin, MD
- Matthew Gonzalez, MD
- Ryan Grayburn, DO
- Milena Jani, MD
- Sangjin Lee, MD
- Renzo Loyaga Rendon, MD
- Phillipe Tremblay, MD

Lung Transplant

616.391.2802 | EPIC REF: 867

- Edward Murphy, MD, Section Chief, Lung Transplantation
- Reda Girgis, MD
- Ryan Hadley, MD
- Sheila Krishnan, DO
- Gayathri Sathiyamoorthy, MD
- Phillipe Tremblay, MD

Thoracic Surgery

616.459.7258 | EPIC REF: 1006

- Edward Murphy, MD, Section Chief, Thoracic Surgery
- Charles Willekes, MD
- Geoffrey Lam, MD

Limb Care, Wound Healing, Hyperbaric and Dive Medicine

616.391.5272 | EPIC REF: 1006

- Drue Orwig, DO, Section Chief, Limb Care and Wound Healing
- Amy Bishop, MD
- John McGlynn, MD

Vascular Surgery

616.267.8700 | EPIC REF: 1006

- Ashraf Mansour, MD, Division Chief, Vascular Surgery
- Eanas Yassa, MD, Section Chief, Vascular Surgery
- Stefano Bordoli, MD
- Christopher Chambers, MD
- Vikram Kashyap, MD
- Andrew Kimball, MD
- Justin Simmons, DO
- Jason Slaikeu, MD

Vein Center

616.267.8346 | EPIC REF: 1006

- Stefano Bordoli, MD
- Ashraf Mansour, MD
- Jennifer Watson, MD
- Eanas Yassa, MD

We are fortunate to also have more than 100 APPs driving success for our patients.

Frederick Meijer Heart & Vascular Institute West Michigan Care Locations

Click for a detailed list
of locations.



Kari Rawles
Senior Provider Program Specialist
616.486.6672
physician.relations@corewellhealth.org 



MC 231
Corewell Health
100 Michigan St. NE
Grand Rapids, MI 49503

Nonprofit Org.
U.S. Postage Paid
Grand Rapids, MI
Permit No. 251

To refer a patient: 855.7MYHEART

Request a hard copy:

fmhvi@corewellhealth.org 

Patient stories:

healthbeat.corewellhealth.org/cardiovascular-care 