The culmination of years of research and planning by a team of cardiovascular specialists, the Heart & Vascular Hospital at Hackensack University Medical Center is a "hospital within a hospital" – a renovated and repurposed space within HUMC that brings our cardiovascular services and patient care facilities together in a facility designed to evolve and expand as needs grow and change. Every aspect of the HVH has been planned to promote collaborative care, integrate tomorrow's technology, improve clinical efficiency and deliver the region's broadest array of services in the most cost-effective manner possible.
Hackensack University Medical Center is a nationally-accredited Chest Pain Center, testament to its proven ability to respond swiftly and decisively to cardiac emergencies.

Minutes Matter

Chest Pain / Cardiac Emergency Room

It can happen to anyone, at any time: that sudden feeling of pressure, then pain, as the heart struggles to perform while being starved of oxygen and vital nutrients. And from the moment it begins, so too does a ticking clock, measuring out the minutes before the heart muscle is irreversibly damaged.

“Several years ago, Hackensack set out to improve the odds for patients presenting with chest pains,” said Dr. Joseph Feldman, chair of HUMC’s Emergency/Trauma Department. “Traditionally, an emergency patient would arrive by ambulance, get an EKG, and the attending physician would then call for emergency cardiac catheterization when indicated. Our paramedics now have the equipment and training to perform an EKG in the field and transmit the results for immediate evaluation. That lets us have the catheterization team ready to go as soon as the patient comes through the door, and it makes a huge difference in survival rates.”

Cool Solutions

HUMC’s Emergency Department was one of the first hospitals in the state to use induced hypothermia to improve recovery from post-ventricular fibrillation cardiac arrest. Although oxygen deprivation will cause brain damage within six to 10 minutes of cardiac arrest, the sudden restoration of blood flow can start a chain reaction of inflammatory and other responses that may also lead to death in the following hours. To minimize the impact, Hackensack’s trauma team uses a topical cooling device to slow the body’s metabolism and help protect the brain – increasing survival rates by 40 percent or more.

Thinking Ahead

Hackensack is already a nationally-accredited Chest Pain Center, testament to its proven ability to respond swiftly and decisively to cardiac emergencies. But even more positive changes are planned with the inception of the Heart & Vascular Hospital, including a dedicated Cardiac Emergency Room, as well as an emergency catheterization lab housed within the Emergency Department, further expanding HUMC’s ability to save lives through swift action.

Pictured: Emergency Medical Technicians
“Having the ability to perform sophisticated diagnostic procedures is important, but how can we know what tests to order if we don’t take time to listen to our patients and understand their lives?”
- Rick Pumill, MD
Medical Director
Advances in cardiovascular medicine have dramatically improved patient survival rates following serious cardiac events. Those successes, however, have left us with more and more patients whose weakened hearts require extra care. In fact, more than 5 million Americans have been diagnosed with heart failure, and it is the most common reason for hospitalization among patients over age 65.

“With an aging population and the increased survivability of cardiac arrest and other events that were once almost invariably fatal, it is critically important that we expand our capacity to help patients with heart failure,” said Dr. Robert Berkowitz, Chief of Heart Failure and Pulmonary Hypertension program at the Heart & Vascular Hospital at Hackensack University Medical Center. This renowned program has saved and improved the lives of thousands of patients with heart disease in our region and the tri-state area. “It’s all about helping people live with, rather than die from, heart failure.”

Already nationally ranked (including a Five Star rating by HealthGrades), Hackensack’s Heart Failure program uses a multi-disciplinary approach to help patients enjoy their best possible quality of life. Advanced diagnostics determine the precise nature of the problem, allowing the treatment team to develop an individualized care plan that combines dietary changes, medications and devices, self-management skills including stress management and individualized exercise programs to help strengthen the heart. Heart failure nurses and Advanced Practice Nurses maintain contact with patients to ensure their progress and provide a seamless network which includes ongoing assessment, education, and assistance with lifestyle modification as well as emotional support.

Besides Dr. Berkowitz’s remarkable individual achievements with many advanced heart failure patients, his greatest achievement may be his influence on physician and nurse practice through example and mentoring. As a well-known researcher, he has discovered the evolving and dynamic changes occurring in heart failure patients that have not been described before, thereby fostering new therapies and treatment modalities. An addition to the heart failure program is the Pulmonary Hypertension (PH) program. This program was developed as an adjunct to treat a disease affecting predominantly young people called Pulmonary Arterial Hypertension. HUMC is one of the only PH programs in New Jersey.

“It’s all about helping people live with, rather than die from, heart failure.”
- Robert Berkowitz, MD
Chief of Heart Failure and Pulmonary Hypertension
“We now have ways to cure abnormal heart rhythms permanently, as well as increasingly sophisticated implantable devices that can save patients’ lives.”

- John Zimmerman, MD  
Director of Electrophysiology
The Hybrid OR will help the Heart & Vascular Hospital become a national destination for complex, multi-objective procedures
- Gregory T. Simonian, MD
Surgical Director
“From the patient’s perspective, it doesn’t make sense to surgically correct a problem without considering its underlying cause and how that might manifest somewhere else.”
- Leonard Lee, MD
Director of Cardiac and Thoracic Surgery

The Cutting Edge

Cardiac and Thoracic Surgery
For all its storied significance, the human heart is essentially an organic pump—a living machine subject to breakdowns that may require physical intervention to correct. When it does, surgical specialists like Dr. Leonard Lee, Director of Cardiac and Thoracic Surgery at the Heart & Vascular Hospital, are ready to step in.

As a highly respected cardiac surgeon in the New York-New Jersey Metropolitan area, Dr. Lee was recruited to the HVH staff to expand its already well-regarded cardiothoracic surgical capabilities. A leading light in aortic and mitral valve repairs, minimally invasive valve surgery and thoracic aneurysm surgery, Dr. Lee has greatly expanded the hospital’s ability to provide sophisticated surgical solutions to cardiovascular problems of all kinds. At the same time, he does not automatically view surgery as the best answer, and believes cardiovascular care today demands that physicians break out of their traditional silos and work together to develop a comprehensive, collaborative approach to patient care.

“Cardiovascular disease is a continuum,” Dr. Lee observed. “Atherosclerosis doesn’t discriminate between the heart valves and the vascular system. What affects one area of the body is likely to affect another. From the patient’s perspective, it doesn’t make sense to surgically correct a problem without considering its underlying cause and how that might manifest somewhere else. That’s why we’re crossing those old professional boundaries, and bringing heart surgeons, vascular surgeons, electrophysiologists, and invasive and non-invasive cardiologists together in weekly meetings to review cases and offer perspective and assistance. It is an exciting, evolving process that makes the best use of our combined disciplines on the patient’s behalf.”
Every year we are learning to perform more and more complex procedures, taking non-surgical approaches to interventions inside the heart with access requiring no more than a needle stick.

- Joseph DeGregorio, MD
Medical Director of Invasive Cardiology
VVascular and Endovascular Surgery

Every organ in our body depends on oxygen and nutrients delivered through a vast, interconnected network of veins and arteries. When that flow is restricted by complications of diabetes and other diseases, vital tissues starve and eventually die. Fortunately, advances in endovascular surgery (in which device implantation and surgical repairs are performed via catheterization through major blood vessels) have opened the doors to angioplasty, stenting and other procedures that are considered routine today, but which were truly revolutionary only fifteen years ago.

Expanding Boundaries

Working together with manufacturers and other cardiovascular specialists, Dr. Massimo Napolitano, Chief of Vascular Surgery, is combining new devices with open and endovascular surgical procedures to address complex challenges, such as the treatment of aortic dissections and upper aortic aneurysms affecting areas with multiple branching arteries.

“Endovascular surgery has exploded in importance, but I believe we’ve only scratched the surface,” noted Dr. Napolitano. “With the talent we have recruited, a collaborative care model and a technologically superior place to work, we are doing everything it takes to be one of the nation’s top destinations for vascular and endovascular surgery.”

Surviving Aneurysms

One of endovascular surgery’s most important contributions has been in the treatment of abdominal aortic aneurysms (AAAs) — balloon-like swellings of the major artery leading from the heart that can suddenly rupture, creating an emergency that four in ten patients will not survive, even with treatment. Attempting to repair the aneurysm via open aortic grafting was a complicated procedure that required a large incision, general anesthesia, weeks of hospitalization and months of recuperation, and still claimed one in twenty patients.

Today, Dr. Napolitano can often use endovascular procedures to treat AAAs even in older patients who were once considered poor candidates for surgery. In many instances, patients can now receive an aortic endograft with only local anesthesia, return home in a day or two, and be almost fully active in two weeks, with a recovery rate near 100 percent.
For an example of how different internal systems intersect and affect each other, look no further than the field of neurovascular surgery. The brain is a thirsty organ, demanding fully one-quarter of the body's cardiac production to distribute oxygen and vital nutrients. When individual cerebral blood vessels burst or are blocked by atherosclerosis, the result is stroke — the leading cause of disability in the United States, and a major concern of Dr. Daniel Walzman, Chief of Endovascular Neurosurgery at the Heart & Vascular Hospital.

One of the first neurosurgeons in New Jersey to perform minimally invasive embolization procedures for the treatment of intracranial aneurysms and arteriovenous malformation (AVM), Dr. Walzman believes the Heart & Vascular Hospital’s new Biplane Angiography Laboratory will significantly improve the use of endovascular techniques to treat stroke and other neurovascular problems.

**Pinpoint Accuracy**

“Biplane angiography is considered the gold standard in imaging for diagnosing and treating aneurysms,” said Dr. Walzman, “and with good reason. Traditional angiography only takes the view of a single plane, which produces a two-dimensional image, and that makes it very difficult and time consuming to navigate around critical structures in the brain. The biplane unit adds a second plane that we can view in real time, allowing us to pinpoint the location of abnormalities and achieve a degree of accuracy that will make a measurable difference in patient outcomes.”

Use of the Biplane Lab will not be limited to neurovascular procedures. Its ability to acquire fast and accurate images while exposing patients to less contrast dye and lower doses of radiation is equally important to patients in need of angioplasty, stenting and other interventional cardiology procedures.

“This is the kind of technology that will help make the Heart & Vascular Hospital a world-class destination,” Dr. Walzman remarked. “More importantly, it’s the kind of technology that saves lives.”
“If we can help even a fraction of those at risk learn to live healthier lives, it will have a dramatic effect on the overall health of the region.”

- Louis Evan Teichholz, MD
Chief of Cardiology

Cardiac Wellness & Rehabilitation
America is a nation of risk-takers and rule-breakers. Despite all we know about the risks of cardiovascular disease and the advances we have made in its prevention, we continue to engage in behaviors that put our hearts in harm’s way. To Dr. Louis Evan Teichholz, Chief of Cardiology at Hackensack University Medical Center, changing behaviors to build stronger, healthier hearts is one of the most important missions of the Heart & Vascular Hospital.

“Not all heart disease is preventable,” noted Dr. Teichholz. “But we do know how to avoid the most common cardiovascular problems, and if we can help even a fraction of those at risk learn to live healthier lives, it will have a dramatic effect on the overall health of the region.”

A Community Resource
The Cardiac Wellness & Rehabilitation program at Hackensack University Medical Center is already an important resource for area physicians, many of whom refer patients who are at high risk for heart disease or are recovering from heart attacks, cardiac bypass or other cardiovascular procedures. The program takes a holistic approach to better cardiovascular health tailored to the patient’s habits, lifestyle and activities, combining nutritional counseling, stress management techniques and carefully monitored exercise.

“One of the most talked about aspects of healthcare reform is the need to promote wellness rather than just cure sickness,” said Dr. Teichholz. “We plan to significantly increase the scope of our wellness programs, including the addition of a floor dedicated to Cardiac Wellness where we can help more people avoid cardiovascular disease in the first place. Of all the things we can do for the public, making ourselves unnecessary would be our greatest achievement.”
Clinical Research
Many of the physicians of the Heart & Vascular Hospital at Hackensack University Medical Center are working with pharmaceutical companies and device manufacturers to develop new treatment protocols and lifesaving procedures. It’s the kind of patient-centered research that brings the latest advances in cardiovascular science to the bedside — exactly what a leading institution must have to achieve national recognition.

There is a vibrant spirit of intellectual curiosity growing at the Heart & Vascular Hospital, and it encourages the kind of “outside the box” exploration that will expand the boundaries of cardiovascular medicine: investigations such as the affects of sleep apnea and how to mitigate their affects on the heart, or the use of testosterone therapy to improve the ability of heart failure patients to rebuild damaged cardiac tissue. These are just a few of the exciting areas of future investigation made possible by a facility and a philosophy that is focused not on cardiovascular medicine’s present, but its future.

“We have made a strong commitment to research,” observed Dr. David Landers, Executive Director of the Heart & Vascular Hospital. “By providing the staff and structure to manage the logistics, patient recruitment and data collection necessary to support investigator-initiated trials, we are giving our physicians the freedom to explore new ideas. You can find competent cardiovascular care at many hospitals, but it is this institution’s fundamental belief in supporting research that will set us apart.”

Academic Affairs
As important as it is to build an outstanding clinical staff of cardiovascular specialists, it is also critical to prepare the next generation to fill their shoes. With top practitioners and one of the best clinical facilities in the state, medical students and residents working in the Heart & Vascular Hospital will get a front row seat to the very latest developments in cardiovascular medicine and surgery. Hackensack also is working to establish several fellowships that will help attract even more of the most promising young minds, ensuring the Heart & Vascular Hospital’s continued growth as a dynamic regional leader in cardiovascular care and research.

“You can find competent cardiovascular care at many hospitals, but it is this institution’s fundamental belief in supporting research that will set us apart.”
- David Landers, MD
Executive Director
A Community Commitment Letter from the Campaign Leadership

Dear Friends:

Few calls for support have the inherent urgency of a campaign to build a center of cardiac excellence, and little wonder. Despite the extraordinary advances made in cardiovascular medicine and surgery, heart disease remains the nation’s leading cause of death. As a result, almost everyone has either first- or second-hand knowledge of the life-changing, life-threatening nature of heart and vascular problems.

Thanks to improved pharmaceuticals and public awareness, the incidence of death from heart attack and other sudden cardiac events is lower than ever. But each successful intervention also adds to the ranks of patients with compromised hearts. Add in those with vascular disease that can lead to stroke — the nation’s third leading cause of death — and the need for a comprehensive regional center to deliver world-class cardiovascular care to Northern New Jersey becomes even more apparent.

Throughout its history, Hackensack University Medical Center has adapted to meet the changing needs of those we seek to serve. We have listened, learned and taught, and we have gathered some of the finest physicians and surgeons together to work in a technologically sophisticated facility that has achieved national recognition for outstanding patient care. Our programs in cardiac care, cardiac surgery, interventional cardiology and stroke care have consistently earned the highest marks from the independent ratings organization, HealthGrades, and from U.S. News and World Report. In addition, HUMC is ranked among the top five percent of hospitals in the nation, and most often as the number one hospital in New Jersey.

This is the foundation Hackensack’s new Heart & Vascular Hospital is being built upon: a commitment to clinical excellence, community-driven program development, exceptional patient care and forward-thinking research. Most important, the Heart & Vascular Hospital will bring our diverse cardiovascular programs together in one location, encouraging collaboration and enabling the kind of multidisciplinary treatment protocols that are the future of cardiac care.

A Beat Beyond, the campaign to build the Heart & Vascular Hospital at Hackensack University Medical Center, is a thoughtful approach to growth...a "hospital within a hospital" that will expand in phases as patient volume continues to increase. By bringing the region’s top specialists and programs together with today’s most sophisticated technology, we will provide a level of cardiovascular care that is second to none.

Equally important, Hackensack University Medical Center is a well-managed, fiscally responsible organization with a proud history of responsible stewardship. Over the years, we have grown in size, patient volume and recognition, earning a regional and national reputation for innovation and quality. In fact, HUMC is the busiest independent hospital in the United States, with an annual budget in excess of $1 billion. Our proven record in both clinical and financial matters is your assurance that your donation will be put to the best use possible, and contribute directly to improving the lives of thousands of your friends and neighbors every year.

What better way to show your commitment to your community than by helping to build a regional center for cardiac excellence? Please join our extraordinary team of citizens and scientists working together to reduce the incidence of heart and vascular disease when possible, and deliver world-class care when it is needed most.

With heartfelt thanks,

Joseph M. Sanzari
Chairman
Board of Governors
Hackensack University Medical Center

Robert C. Garrett
President and
Chief Executive Officer
Hackensack University Medical Center

Robert L. Torre
Executive Vice President and
Chief Operating Officer
Hackensack University Medical Center

Joseph Simunovich
Chairman
Board of Trustees
Hackensack University Medical Center Foundation

Joanne Simunovich
Chairman
Board of Governors
Hackensack University Medical Center Foundation

With heartfelt thanks,
A symphony achieves its power from an interwoven tapestry of sounds: individual artists blending their talents together to create a moving experience that touches the heart. And just as collaboration is the key to creating beautiful music, so too is it the key to healing hearts — and building the perfect place to do so.

It is an exciting challenge, charting the future of cardiovascular care for Northern New Jersey, and one that Hackensack University Medical Center is ideally suited to pursue. HUMC is one of a very few medical centers in the country with the ability to obtain the necessary support to build, equip and staff a world-class facility, and the proven managerial and fiscal strength to direct its use. Recognizing the need for prudence in the face of today’s changing economics, the HUMC Foundation and the leadership of the Heart & Vascular Hospital created a two-phase development plan for our “hospital within a hospital.”

The time for planning is past, and we have already begun integrating services and bringing new equipment, laboratories and talent home to the Heart & Vascular Hospital at Hackensack University Medical Center. Now it is time to enlist the support of those in the community who will stand shoulder to shoulder with today’s leaders in cardiac medicine to continue the mission, creating the kind of facility that not only provides extraordinary care, but extends cardiovascular science farther than ever before.

By adding your voice to A Beat Beyond, you will be forever part of the future of cardiac care in Northern New Jersey and beyond. For those in search of a lasting legacy, here are a few of the specialized naming opportunities available:
Stereotaxis Laboratory – $2 million
This innovative system uses magnetic fields generated outside the body to guide catheters and leads through blood vessels, reducing the need for open surgery and allowing faster, safer interventional procedures.

Vascular Laboratory – $2 million each
The Vascular Laboratory uses a variety of noninvasive imaging tests to diagnose vascular diseases and visualize blood flow. These tests require no needles or injections, cause no discomfort, and have no side effects.

Electrophysiology Laboratory – $2 million
An electrophysiology study (EPS) analyzes the electrical activity of the heart using cardiac catheters and sophisticated computers to obtain precise electrical measurements from within the heart chambers.

Primary Waiting Areas – $1 million
Our waiting rooms are being designed to be not only comfortable, but to provide opportunities to educate patients and their families about ways to improve their cardiovascular health.

Named Fund for Clinical Innovation – $1 million
Funds set aside to support innovative clinical research projects developed by the physician-scientists of the Heart & Vascular Hospital.

For more information about these and other commemorative opportunities, please contact:

Robert L. Torre
Executive Vice President and Chief Operating Officer

Hackensack University Medical Center Foundation
360 Essex Street, Suite 301, Hackensack, NJ 07601-8566 Phone 201.996.3720 Fax 201.996.3468
"I can’t praise everybody enough. Everything the doctors said was exactly right, the procedures went off like clockwork and I was up and about in a couple of days."

- Gary Brown
Grateful Patient

"Expecting the Unexpected"

Shortly before a long-planned vacation to Canada’s Eastern Atlantic Provinces, retired software engineer Gary A. Brown drove to his annual visit with cardiologist Dr. David Landers. Since his recovery from quadruple bypass surgery, performed in 1996 by HUMC surgeon Dr. Peter Fraeger, these visits had become rather unremarkable. This year’s visit, however, would be anything but.

After detecting an abnormality while palpating the patient’s abdomen, Dr. Landers confirmed his suspicions with an ultrasound and a CAT scan – Mr. Brown had an abdominal aortic aneurysm and five others that could burst at any time. Dr. Landers digitally forwarded Mr. Brown’s diagnostic images and test results to his colleague, vascular surgeon Dr. Gregory T. Simonian.

“My daughter-in-law, a nurse, came with me on my first visit, and she explained how aneurysms were typically treated with surgery,” said Mr. Brown. “The whole thing sounded even more dangerous than my heart operation. But when Dr. Simonian came in, my confidence went through the roof. Even my daughter-in-law, the nurse, was surprised to learn they could fix all six aneurysms with just a catheter through an artery in my groin.”

Mr. Brown also met with the Heart & Vascular Hospital’s research coordinator, Diane Agar, RN, who enrolled him in an exciting clinical trial for a new drug that removes the effects of the blood thinner, Coumadin, in minutes instead of days.

“I can’t praise everybody enough. Everything the doctors said was exactly right, the procedures went off like clockwork and I was up and about in a couple of days. In fact, when Dr. Simonian came out after the first procedure, my friends and family said he was so clear, calm and direct in explaining exactly what he found and what he did that other people who were waiting said, ‘Wow…who is that guy?’ and ‘I want him for my doctor!’ But that’s how good everybody is here.”

As for Mr. Brown, he barely had time to approve his quotes before dashing off on his delayed vacation. “I’ve already missed a month!” he exclaimed. “I don’t want to miss a minute more.”