

# QUALITY AND OUTCOMES REPORT 2016







## **Program Overview**

# CARDIOVASCULAR CARE AT EL CAMINO HOSPITAL

### COMPREHENSIVE. COLLABORATIVE. COMMITTED.

The Norma Melchor Heart & Vascular Institute (NMHVI) offers a unique and refreshing advantage in cardiovascular care — leadingedge therapies delivered by world-class experts in a welcoming community hospital environment. Few programs can match our comprehensive range of services, including prevention and education, diagnosis and treatment, and rehabilitation. Our program provides access to an exceptional team of high-caliber clinicians and advanced technology that have become a hallmark of El Camino Hospital. Truly, the spirit of innovation is alive and well here at the Hospital of Silicon Valley. The proof is in the state-of-the-art therapies we offer and the impressive outcomes we've achieved. We invite you to review the highlights in this brochure and reach out for more information. **Physicians, please call 650-962-4580. Patients, please call 800-216-5556.** 

Learn more at www.elcaminohospital.org/heart, or visit our YouTube page to view the growing list of videos about our advanced cardiovascular care. www.youtube.com/ElCaminoHospital

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El Camino Hospital<sup>®</sup> THE HOSPITAL OF SILICON VALLEY NORMA MELCHOR HEART & VASCULAR INSTITUTE

# A Message from the Medical Director

### A PROGRAM THAT EARNS RESULTS, RESPECT, AND RENOWN

I have had the opportunity over my 35 years as a cardiac surgeon to work with many impressive cardiovascular programs and to see different approaches in this dynamic, challenging field. I accepted the medical director position here at the Norma Melchor Heart & Vascular Institute because I found El Camino Hospital to be an outstanding facility in terms of technology, resources, location, patient population, and administrative support. What's more, the specialists here are exceptionally skilled, and we share an exceedingly patientcentric philosophy that infuses everything we do.

Not surprisingly, our program consistently receives accolades and accreditations, and our outcomes reflect the dedication and commitment of the entire group. The program draws patients from throughout the region, due in part to the depth and breadth of our team, as well as our unique culture of collaboration. Cases are jointly reviewed by our world-class cardiovascular specialists in order to find the solution that is best suited for every patient.

We offer the full range of interventional and surgical procedures, including hybrid procedures that combine both. We offer five hybrid operating suites that accommodate traditional and intravascular procedures (simultaneously or sequentially) without having to move the patient.

We are able to treat the most complex cardiovascular issues, and we are constantly pushing ourselves to remain on the leading edge through innovation and research. Our goal going forward is to maintain the personalized care model we are known for in a rapidly changing healthcare environment.



Quality Leadership

• PCI

• CoreValve® • MitraClip®

Cardiac Surgery

 Vascular Procedures
 Wound Care Center

Electrophysiology

Cardiac Wellness
Imaging

Clinical Research Specialized Care

– Vincent Gaudiani, MD, Cardiothoracic Surgeon; Medical Director, Norma Melchor Heart & Vascular Institute at El Camino Hospital

# **Quality Measures and Registries**

### OUTSTANDING OUTCOMES ACROSS THE BOARD

Throughout this report, charts summarize outcomes for procedures performed at El Camino Hospital during 2015. We collect and report our data according to the strict guidelines set up by respected, independent national registries. These databases provide benchmarks for quality comparison. By analyzing these metrics, we can determine how our outcomes measure up against other highly respected cardiac and vascular programs in the country. This helps us ensure that we are meeting the highest standards of evidence-based practice and quality care available. We are currently participating in the following registries:

### > Society of Thoracic Surgeons (STS) National Database

- CABG (Coronary Artery Bypass Grafting)
- Aortic Valve Replacement
- All Other Adult Cardiac Surgeries

### > American College of Cardiology (ACC) National Cardiovascular Data Registry (NCDR<sup>®</sup>)

- CathPCI (Percutaneous Coronary Intervention)
- ICD (Implantable Cardioverter-Defibrillator)
- TVT (Transcatheter Aortic Valve Replacement and MitraClip<sup>®</sup>)
- ACTION (Acute Myocardial Infarction)
- AFib (Atrial Fibrillation) Ablation
- LAAO (Left Atrial Appendage Occlusion)

- American Heart Association/American
   College of Cardiology
  - Get with the Guidelines Heart Failure
- > Vascular Quality Initiative (VQI)
  - Peripheral Vascular Intervention
  - Endovascular Abdominal Aortic Aneurysm Repair
  - Carotid Endarterectomy
  - Carotid Artery Stent

### > Standard Government Reporting

- Carotid Artery Stent Certification
- CCORP (California CABG)
- STEMI Santa Clara County (ST Segment Elevation Myocardial Infarction)
- Santa Clara County Sudden Cardiac Arrest Initiative

# **Physician Expertise and Leadership**



### STS - Society of Thoracic Surgeons

This database was established as an initiative for quality improvement and patient safety among cardiothoracic surgeons. It has become the gold standard for clinical registries.

### Vascular Quality Initiative®

This registry collects perioperative and one-year follow-up data to generate real-time benchmarked reports to assess quality of care and determine best practices in vascular surgery and intervention. The Norma Melchor Heart & Vascular Institute at El Camino Hospital is a destination for patients and physicians alike. Patients come for the exceptional care. As an independent, community-based institution, El Camino Hospital attracts physician innovators and leaders who work closely together to exceed quality measures and patient expectations. Doctors come from the nation's finest medical schools to do their best work in a unique environment that enables them to innovate, collaborate, and operate with only the patient's best interest at heart.

The caliber of our team rivals the major academic programs in the country. Our specialists are on the leading edge of both surgical and interventional techniques, offering both expertise and experience that few programs can match. We are pioneering new procedures and training physicians from around the world on some of the newest medical techniques. We are also active participants in many clinical trials that give our patients access to advanced therapies and help to advance treatment for the region and beyond.



### NCDR - National Cardiovascular Data Registry

This is the American College of Cardiology's suite of cardiovascular data registries designed to help hospitals and private practices measure and improve the quality of care they provide.



### Get with the Guidelines - Heart Failure

This in-hospital program is designed to improve care and reduce readmission rates by promoting consistent adherence to the latest scientific treatment guidelines.

QualityLeadership

• PCI

• CoreValve® • MitraClip®

Cardiac Surgery

 Vascular Procedures

Wound Care Center

Electrophysiology

Cardiac WellnessImaging

# Highlights on Leading-Edge Interventional Therapies

### PERCUTANEOUS CORONARY INTERVENTION (PCI)

Our renowned team of interventional cardiologists has long been at the forefront of percutaneous procedures for treating unstable angina, acute myocardial infarction (MI), and coronary artery disease (CAD). We perform PCI procedures with expert precision in our state-of-the-art cath lab. Our facility includes five specially designed hybrid suites that enable surgical and endovascular specialists to work simultaneously or sequentially, without the need to move the patient.

In 2015, more than 41 percent of our patients received

coronary procedures performed through radial artery access. This type of access allows for quicker recovery and fewer potential complications than when the procedure is performed through femoral artery access. We are continually innovating to provide the highest level of care. We are one of the first hospitals in the Bay Area to use Absorb GT1, the first-of-its-kind bioresorbable coronary artery stent.



# CHEST PAIN CENTER PCI

CCREDITE

### Society of Cardiovascular Patient Care/Chest Pain Center with PCI

We were the first in the region to achieve designation as an Accredited Chest Pain Center with PCI.

### ACTION (Acute Myocardial Infarction)

We recently joined this registry and have four quarters of data so far.

### NCDR CathPCI Registry

For diagnostic catheterization and/or percutaneous coronary intervention (PCI) procedures.



"At El Camino Hospital, we provide care that is evidence based and outcome focused. We weigh the risks and benefits of various therapies and strive to provide the best quality of life for each individual patient."

-Chad Rammohan, MD, FACC, Interventional Cardiologist, PAMF - Mountain View Center; NMHVI Medical Director, Cardiac Catheterization Laboratory, Chest Pain Center, and TAVR

# Quality



CoreValve®

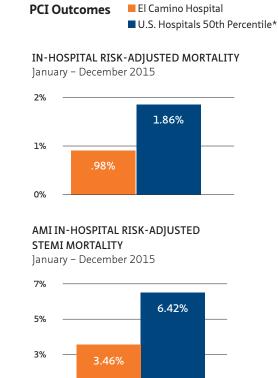
MitraClip®

• Vascular

Procedures

Wound Care Center

Cardiac Surgery



1%

0%

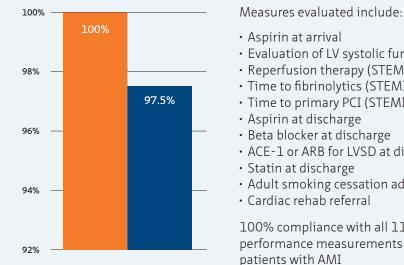
\*As reported in the NCDR CathPCI Registry®

### **AMI STEMI Performance**

El Camino Hospital U.S. Hospitals 50th Percentile\*\*

### STEMI PERFORMANCE COMPOSITE

July 2015 - March 2016



• Aspirin at arrival • Evaluation of LV systolic function • Reperfusion therapy (STEMI only) • Time to fibrinolytics (STEMI only) • Time to primary PCI (STEMI only)

- Aspirin at discharge
- Beta blocker at discharge
- ACE-1 or ARB for LVSD at discharge
- Statin at discharge
- Adult smoking cessation advice
- Cardiac rehab referral

100% compliance with all 11 performance measurements for patients with AMI

\*\*As reported in the NCDR ACTION Registry®

Electrophysiology

Cardiac Wellness

Imaging

 Clinical Research • Specialized Care

• PCI

# Highlights on Leading-Edge Transcatheter Valve Therapies

### COREVALVE® TRANSCATHETER AORTIC VALVE REPLACEMENT (TAVR)

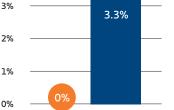
Transcatheter aortic valve replacement CoreValve<sup>®</sup> is a minimally invasive method for treating severe aortic stenosis in patients who are at high risk or ineligible for traditional surgical valve replacement. Made from natural tissue obtained from the heart of a pig, the CoreValve<sup>®</sup> controls blood flow through a flexible, self-expanding frame that's secured in place via catheter, without the need for a sternotomy or open-heart procedure.

Our cardiovascular specialists have extensive experience with this cutting-edge treatment, as El Camino Hospital was one of the first 10 hospitals in the country to participate in the original clinical research for the device (Medtronic CoreValve® U.S. Pivotal Trial). Our valve experts' contributions helped lead to the commercial approval of the revolutionary CoreValve® device in early 2014.

Since widespread use of the device is relatively new, results have only recently been tracked in a national registry. Our experience and expertise in this area put us at the forefront of this therapy, and we are reporting outstanding outcomes. We are currently participating in the clinical trial for this device in moderate-risk patients.

# TRANSCATHETER VALVE THERAPY OUTCOMES - TAVR January - December 2015 3% 2% 2% 2% 1% 1% 0% In-Hospital Observed<br/>Mortality





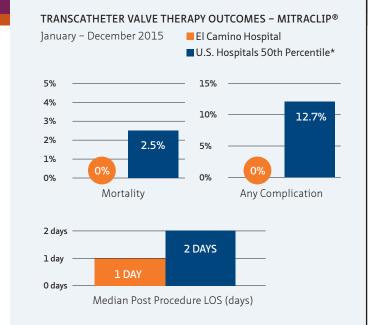


Bleeding Complications

\*As reported in the ACC/STS NCDR TAVR Registry®

### MITRACLIP® PERCUTANEOUS MITRAL VALVE REPAIR

MitraClip<sup>®</sup> is an innovative tool that provides patients suffering from the debilitating symptoms of mitral valve regurgitation (MR) with a less invasive alternative to traditional surgery. Some MR patients are not well enough to undergo traditional surgery, and this endovascular therapy is a lifesaving option. Because the percutaneous MitraClip<sup>®</sup> procedure does not require a chest incision or heart-lung machine, patients avoid the potential complications and extended recovery associated with conventional surgery. In fact, MitraClip<sup>®</sup> is the only alternative to traditional open mitral valve surgery that's approved by the FDA. El Camino Hospital was one of the early investigational sites in the clinical trial for the device, and the innovation was initially developed by Norma Melchor Heart & Vascular Institute physician Frederick St. Goar, MD. In 2015, we successfully completed all of our procedures without mortality or complication, and with an average length of stay (LOS) of one day in the hospital.



\*As reported in the NCDR CathPCI Registry®

"As the pioneer of the MitraClip,<sup>®</sup> it's extremely rewarding to have been able to develop a technology here at El Camino Hospital that has a global impact in healthcare. As a community hospital, our nimble environment enables innovation at a much faster pace than is typically possible at a large university or academic institution."

-Frederick St. Goar, MD, Interventional Cardiologist, Advanced Cardiovascular Specialists, Inc.; Vice Chairman, Fogarty Institute for Innovation



| • Quality<br>• Leadership  |
|--|
| • PCI  |
| • CoreValve®<br>• MitraClip®   |
| • Cardiac Surgery  |
| <ul> <li>Vascular<br/>Procedures</li> <li>Wound Care Center</li> </ul> |
| • Electrophysiology  |
| • Cardiac Wellness<br>• Imaging  |
| • Clinical Research  |

Specialized Care

# Highlights on Leading-Edge Cardiac Surgery Therapies

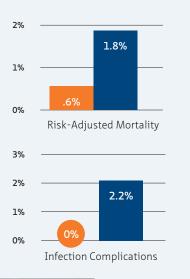
### CARDIOTHORACIC SURGERY

Our multidisciplinary surgical team is nationally recognized for exceptional outcomes in cardiothoracic surgery. We utilize minimally invasive techniques whenever possible, using catheter-based interventions, and endoscopic vein harvesting and arterial grafting. We exceed all quality benchmarks, achieving excellent outcomes in terms of mortality and infections. Our physicians perform hundreds of complex procedures each year (many of which one might expect to be available only through large academic medical centers), including surgeries for aortic aneurysm, coronary bypass, aortic valve repair and replacement, and more. Our success is a result of expert surgeons, state-of-the-art equipment, and an exceptionally efficient technical team that ensures speed and efficiency in the OR, with fewer complications than our competitors.

"Many patients undergoing surgery have multiple conditions to treat. What makes El Camino Hospital great is the collaboration between referring physicians, cardiologists, and cardiac surgeons to ensure that each patient is treated appropriately, encompassing the entirety of their needs."

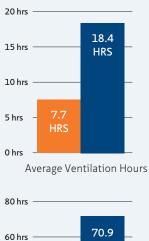
-Pei Tsau, MD, FACC, Cardiothoracic Surgeon, PAMF – Palo Alto Center; NMHVI Medical Director, Cardiothoracic Surgery

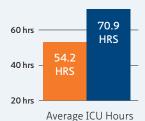
### Coronary Artery Bypass Grafting ISOLATED CABG PROCEDURES, DATA SUMMARY January – December 2015





U.S. Hospitals National Average

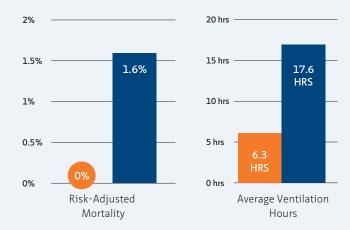




Patients undergoing coronary artery bypass grafting at El Camino Hospital are less likely to have complications related to the procedure compared to the U.S. average.



### Aortic Valve Replacement (AVR) ISOLATED AVR PROCEDURES, DATA SUMMARY January – December 2015



Survival and absence of major complications after aortic valve replacement at El Camino Hospital is in the top 5% in the United States.

El Camino Hospital received a three-star rating for outcomes in coronary artery bypass grafting (CABG) and aortic valve replacement (AVR) for the period of calendar year 2015 from the Society of Thoracic Surgeons (STS) National Database. This is the highest rating offered by the STS and ranks El Camino Hospital in the **top five percent** of hospitals in the nation for outstanding performance and outcomes in these areas, placing us among the top 28 hospitals in the nation.



U.S. Hospitals National Average

Risk-Adjusted

Mortality

El Camino Hospital

**Mitral Valve Repair** 

7%

1.5%

1%

0.5%

January - December 2015

1.1%



Tomomi Oka, MD, Cardiothoracic Surgeon, PAMF – Palo Alto Center



"I am proud of our commitment to providing each patient the best of our collective thinking and judgment. Our collaboration is a critical step in our patientcentered care model."

—Conrad Vial, MD, Cardiothoracic Surgeon, PAMF – Palo Alto Center QualityLeadership

• PCI

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CoreValve®

• MitraClip®

Cardiac Surgery

- Vascular Procedures
- Wound Care Center

Electrophysiology

- Cardiac Wellness
- Imaging

# Highlights on Leading-Edge Vascular Therapies

### VASCULAR PROCEDURES

### Vascular Care

The specialists in our vascular program are dedicated to providing the best vascular care for our community. We offer vein care, hemodialysis access care, deep vein thrombosis (DVT) treatments, wound care, limb salvage coordination, and medical management of vascular disease — and the best in clinical data and appropriate imaging.

### **Carotid Care**

A stroke can be very dangerous and debilitating. Prevention is important, and our teams are dedicated to providing excellent medical, surgical, and endovascular care for patients at risk for or recuperating from strokes. We offer excellent surgical care for carotid disease, which limits blood flow to the brain, in addition to carotid stenting, which can be offered as a minimally invasive approach for select patients. Regardless of approach or timing, our vascular specialists are committed to the best results and care for our patients at risk for stroke.

### **Peripheral Vascular Intervention**

Endovascular care can utilize many different approaches for the best patient outcome, including angioplasty, atherectomy, and stenting. More complex lesions may require surgical bypass, performed safely and effectively in our state-of-the-art operating rooms with the help of our exceptional nursing and anesthesia teams.

### Endovascular Abdominal Aortic Aneurysm Repair

El Camino Hospital provides effective and high-quality care with our collaborative teams — specialists, nurses, and critical care professionals — to provide excellent outcomes for patients with aneurysms. Aortic aneurysms can be treated with either endovascular stents inserted through the femoral arteries or traditional open surgery.

We experienced zero percent mortality in 2015 for procedures including endovascular abdominal aortic aneurysm repair, carotid artery stenting, and carotid endartectomy.



"You have many options for finding vascular care, but I can assure you our specialists, nursing teams, and staff use best practices and data-driven clinical outcomes to ensure your health, safety, and personal attention."

- Tej Mohan Singh, MD, MBA, Vascular Surgeon, PAMF – Mountain View Center; NMHVI Medical Director, Vascular Surgery and Intervention, and Wound Care Center



Peter Schubart, MD,
 Vascular Surgeon; Medical
 Director, El Camino Hospital
 Wound Care Center

# Wound Care Center

Patients who suffer from cardiovascular issues often find that a lack of healthy blood circulation hinders their body's ability to heal properly. Common conditions such as diabetes and peripheral artery disease can lead to chronic wounds — those that do not heal within 30 days or respond to treatment.

These patients benefit from personalized, attentive care, and that's why we recently enhanced our wound care services by opening a dedicated Wound Care Center. Here, we bring experienced specialists together to offer a full range of care in a single location, from expert diagnosis to the latest noninvasive and minimally invasive treatments. Specially trained nurses, vascular surgeons, podiatrists, orthopedists, plastic surgeons and other experienced specialists work with each patient's care team to provide expert care for skin ulcers of all kinds (arterial, venous, diabetic, pressure) and nonhealing surgical incisions.

The center offers a full range of healing therapies, including debridement (removal of tissue to allow healing), compression (to reduce swelling), the latest techniques in wound dressing and tissue engineered skin equivalents, and access to surgeons, if needed.



# • Quality • Leadership

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• CoreValve® • MitraClip®

• Cardiac Surgery

 Vascular Procedures
 Wound Care Center

Electrophysiology

Cardiac Wellness

Imaging

# Highlights on Leading-Edge Electrophysiology Therapies

### ELECTROPHYSIOLOGY

### Implantable Cardiac Rhythm Management (CRM) Devices

El Camino Hospital is one of the very few centers with extensive experience in the newest technology in implantable rhythm and heart failure management devices, such as the pioneering quadripolar pacing for cardiac resynchronization therapy (CRT) and the leadless (Nanostim<sup>™</sup>) pacing technology. We also offer pacemaker and defibrillator lead extraction.

### **Implantable Heart Failure Management Devices**

We are one of the only centers in the Bay Area offering implantable pulmonary artery pressure monitoring devices (CardioMEMS<sup>™</sup>), which have been shown to reduce rehospitalization of patients with heart failure. And we're the only local center offering implantable heart failure treatment (BaroStim<sup>™</sup> Clinical Trial), which has been shown to significantly reduce heart failure symptoms.

### Curative Arrhythmia Treatment

We provide the most comprehensive spectrum of arrhythmia cure technology. This includes high-volume atrial fibrillation ablation (catheter and surgical), ventricular tachycardia catheter ablation, supraventricular tachycardia and inappropriate sinus tachycardia catheter ablation with comprehensive mapping and ablation technology, and other types of arrhythmia management. We recently joined the Atrial Fibrillation Ablation Registry.

- Successful placement of CRT device is 100 percent
- Incidence of hematoma is 0 percent for implant procedures



### CardioSmart® American College of Cardiology

We received a four-star rating (the highest possible) on the use of appropriate discharge medications after ICD implant in patients with less than normal heart function. "At El Camino Hospital, we continue to provide the most comprehensive and state-of-the-art treatments for rhythm disorders and heart failure. We conform to evidence-based medicine to provide you with personalized treatment to improve your quality of life."

> Bing L. Liem, DO, FACC, FHRS, Electrophysiology Cardiologist, Advanced Cardiovascular Specialists, Inc.; NMHVI Co-Medical Director, Electrophysiology & Cardiac Rhythm Device Laboratory



### WATCHMAN<sup>™</sup> Device for Left Atrial Appendage in Nonvalvular Atrial Fibrillation

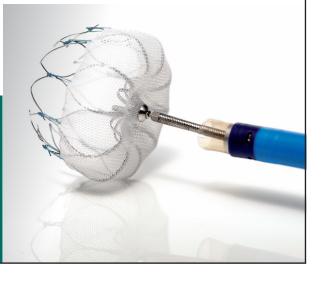
In spring of 2016, cardiologists at the Norma Melchor Heart & Vascular Institute were among the first in Northern California to perform the WATCHMAN<sup>™</sup> device implant procedure for atrial fibrillation. This procedure offers a safer alternative for patients who have adverse reactions to blood thinners, commonly prescribed to reduce the stroke risk associated with atrial fibrillation. Delivered via catheter through a groin vein, the device is threaded up to the heart and implanted in the left atrial appendage. The device is then unfolded to cover the opening in the left atrial appendage, where clots tend to form. The WATCHMAN<sup>™</sup> serves as a barrier to keep dangerous clots from entering the bloodstream and potentially causing a stroke. We joined the Left Atrial Appendage Occlusion (LAAO) Registry in July 2016, and our first quarter of data shows a zero percent complication rate and a 100 percent device implant success rate, with just a one-day hospital stay for patients.

"We continually seek out, evaluate, and adopt innovative therapies in order to offer our patients the best possible alternatives for treatment."

 Shaun Cho, MD, Electrophysiologist, PAMF – Palo Alto Center; NMHVI Co-Medical Director, Electrophysiology Laboratory



Above: Deepu Nair, MD, Chad Rammohan, MD, FACC, and Rob Patrawala, MD



QualityLeadership

### • PCI

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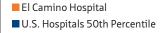
- CoreValve<sup>®</sup>
- MitraClip®
- Cardiac Surgery
- Vascular Procedures
- Wound Care Center
- Electrophysiology
- Cardiac Wellness
- Imaging

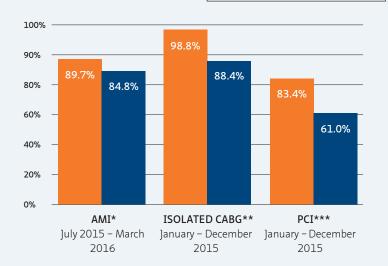
# **Cardiopulmonary Wellness**

### CARDIAC AND PULMONARY REHABILITATION

As patients are enjoying longer, healthier lives, there is an even greater need for rehabilitation services. The Cardiac & Pulmonary Wellness Center at El Camino Hospital is an integral part of our comprehensive program and one of the few programs of its kind in the area. Our rehabilitation team consists of registered nurses, respiratory therapists, exercise physiologists, and other multidisciplinary healthcare professionals who provide personalized exercise, nutrition guidance, and education for our cardiovascular patients. Our center has been providing services for over 20 years and has been awarded program certification for both the Cardiac Rehabilitation Program and the Pulmonary Rehabilitation Program by the American Association of Cardiovascular and Pulmonary Rehabilitation. Certification recognizes that our programs have been rigorously reviewed by a national board and found to meet the outlined essential requirements for standards of care.







\*As reported in the NCDR ACTION Registry<sup>®</sup> \*\*As reported in the STS National Database \*\*\*As reported in the NCDR CathPCI Registry<sup>®</sup>



"We understand your cardiovascular care doesn't end with your hospital discharge. Resuming your work, family, and social life with confidence and achieving a high level of wellness depends on ongoing support from our team of wellness specialists."

-Catherine Collings, MD, FACC, Cardiologist, Advanced Cardiovascular Specialists, Inc.; NMHVI Medical Director, Cardiac & Pulmonary Wellness Center

# Imaging Excellence

### CLEARER IMAGING ENSURES BETTER OUTCOMES

Cardiovascular disease diagnosis and treatment is a multidisciplinary effort, requiring seamless coordination among many specialists. Our ability to successfully perform advanced therapies in the structural heart space is largely dependent on the sophisticated technology and expert skill of our imaging team. El Camino Hospital has made substantial investments in leading-edge equipment and in clinicians who work side by side with interventionalists and surgeons. We use detailed imaging to determine the severity of the issue and the appropriate approach, as well as to guide the actual treatment. The strong collaboration between our imaging and procedural specialists is a significant factor in our outstanding outcomes.

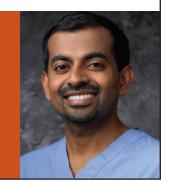
### ADVANCED IMAGING TECHNOLOGY FOR CARDIOVASCULAR CARE

Our significant investment in imaging technology enables our physician experts to diagnose and treat cases with exceptional precision. Modalities include:

- > Cardiac ultrasound, including real-time three-dimensional and intracardiac echocardiography
- > Vascular ultrasound
- Coronary and peripheral arterial computed tomography
   (CT) angiography
- > Magnetic resonance imaging (MRI)
- Nuclear cardiography with advanced multidetectorcomputed units, which optimize and minimize radiation

Our echocardiography lab has been granted accreditation by the Intersocietal Accreditation Commission for exceptional quality standards. "Very few facilities have both the technology and the expertise that is offered at El Camino Hospital. We have everything in place in order to truly make the best treatment choice for our patients and to execute that with amazing precision."

--Deepu Nair, MD, Cardiologist, PAMF - Mountain View Center; NMHVI Medical Director, Echocardiography Laboratory



• Quality • Leadership

• PCI

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CoreValve®

MitraClip®

Cardiac Surgery

 Vascular Procedures
 Wound Care Center

Electrophysiology

Cardiac Wellness

Imaging

# **Clinical Research**

The Norma Melchor Heart & Vascular Institute has been a leader in cardiovascular clinical research in the Silicon Valley since 1991. The Institute and our physicians are passionately committed to the discovery of innovative strategies to prevent and treat cardiovascular disease. As an example of El Camino Hospital's role in driving innovation, the FDA-approved MitraClip® was developed by Frederick St. Goar, MD, a Norma Melchor Heart & Vascular Institute physician. Our valve experts played a key role in clinical research leading to the approval and commercialization of Medtronic's revolutionary CoreValve® device. Our goal is to offer patients a full complement of personalized care that combines the best of existing treatments with access to cutting-edge clinical research. We offer a broad range of clinical trials that include all phases of research, ranging from single-site, physician-designed proof-of-concept studies to industry-sponsored Phase I–IV multisite trials.

### We are currently enrolling new patients in a variety of trials:

Cardiovascular Outcomes Assessment of the MitraClip<sup>®</sup> Percutaneous Therapy for Heart Failure Patients with Functional Mitral Regurgitation (COAPT) Phase: III PI: Chad Rammohan, MD

Safety and Effectiveness Trial for the Nanostim Leadless Pacemaker Phase: III PI: L. Bing Liem, DO

**The Evaluation and Treatment of Elevated Left-Sided Filling Pressures by Balloon Inflation within the Inferior Vena Cava** Phase: Proof of Concept/Observational PI: Daniel Kaiser, MD

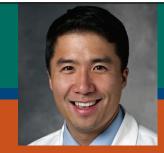
Surgical Replacement and Transcatheter Aortic Valve Implantation (SURTAVI) Phase: II/III PI: James Joye, DO

Barostim neo<sup>®</sup> – Baroreflex Activation Therapy<sup>®</sup> for Heart Failure (BeAT-HF) Phase: Pivotal PI: Bing Liem, DO



"The groundbreaking clinical research done at El Camino Hospital not only provides our patients access to the most cutting-edge medical therapy, but also provides us (their physicians) the opportunity to better understand disease pathophysiology to enable the next generation of medical innovation."

-Daniel Kaiser, MD, Electrophysiologist, Advanced Cardiovascular Specialists, Inc.



"Our success in treating heart failure can be attributed to our collaboration and diligence in diagnosing, monitoring, and treating patients with this complex disease."

-Geoffrey Yoon, MD, Cardiologist, PAMF – Mountain View Center; NMHVI Medical Director, Heart Failure



"El Camino Hospital has been at the forefront of redefining the healthcare of tomorrow. I am proud to be part of such an electric and dynamic environment!"

-Bahman Nouri, MD, FACC, Interventional Cardiologist, Advanced Cardiovascular Specialists, Inc.; Chair of Medicine, El Camino Hospital – Mountain View

# Specialized Care

Heart Failure Treatment – El Camino Hospital is recognized as one of the top U.S. hospitals for low heart failure readmission rates. We closely monitor patients in the hospital and post discharge, using the groundbreaking Cardio MEMS HF System.™ MEMS helps reduce readmission rates by remotely monitoring the pulmonary artery pressure and heart rate of heart failure patients. For those who don't improve with medication and lifestyle changes, we offer a variety of sophisticated treatments, including MitraClip® and CoreValve,® as well as the latest techniques to treat arrhythmias.

**South Asian Heart Center (SAHC)** – This program addresses the high incidence of heart disease and diabetes in people of Indian and other South Asian descent. SAHC provides culturally tailored, evidence-based risk reduction techniques to both participants and physicians.

**Women's Heart Care** – Heart disease and heart attacks often present differently in women. Our specialized approach includes a monthly women's cardiac support group, health resources, and women's heart health events focusing on the differences in women's symptoms.

Prevention of disease is as important as diagnosis and treatment. We provide community education to promote heart health in many ways, including our annual Heart Forum, support groups, an online heart-risk assessment tool, and PulsePoint, a free phone app for CPR-trained citizens.

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• Leadership

Quality

• PCI

• CoreValve® • MitraClip®

Cardiac Surgery

 Vascular Procedures
 Wound Care Center

Electrophysiology

Cardiac Wellness

Imaging



www.elcaminohospital.org/heart



### **Giving From the Heart**

The Norma Melchor Heart & Vascular Institute is named for long-time hospital volunteer and philanthropist Norma Melchor. Norma and her husband Jack were among the first to recognize the need for a local community hospital. She was active in the El Camino Hospital Auxiliary, co-chaired the Citizens Committee for the El Camino Hospital District that promoted the second bond issue for the hospital's expansion, and served four terms on the El Camino Hospital District Board of Directors. Jack Melchor established the El Camino Hospital Foundation in 1982, becoming its first chair and serving on the board for nine years. The couple repeatedly demonstrated exceptional generosity to the hospital, and Norma chaired the Foundation's Imagine Campaign to raise funds for the new patient tower on the Mountain View campus. After Norma's death in 2012, the Melchor family donated several million dollars to provide ongoing support for clinical programs and research at the Heart & Vascular Institute, which was named for Norma. Lane Melchor, who chairs the Foundation Board of Directors as his grandfather Jack once did, is continuing the family legacy of commitment to the hospital and community.

www.elcaminohospital.org/foundation