2009 - 2010
Quality Report
On behalf of my colleagues dedicated to heart and vascular health, I am pleased to present this inaugural 2009-2010 Quality Report of the Oregon Heart & Vascular Institute at Sacred Heart Medical Center.

This report details the exceptionally high quality and wide range of clinical care we offer at Oregon Heart & Vascular Institute. Our heart and vascular programs are top-rated in the state and nationally. We aim for excellence in all areas and techniques so that we can achieve the best possible results. Our achievements are worth sharing:

- We are very proud of our dramatic improvements in treating AMI patients. At 2.06 percent, Sacred Heart’s heart attack mortality rate is now among the very best in the country. Our mortality rate is roughly half that predicted for our population by the federal Centers for Medicare and Medicaid Services. Our heart attack mortality rate is roughly a quarter of what it was six years ago — meaning many lives saved.

- In 2009, our cardiothoracic surgery program was recognized with the highest rating from the Society of Thoracic Surgeons — a rating earned by only 11.7% of their 955 participants.

- Our vascular surgeons and interventional radiologists continue to lead the way regionally in providing patients with a range of effective and minimally invasive treatments for emergent problems and elective procedures.

In August 2008, the Oregon Heart & Vascular Institute opened a 156,000-square-foot, five-story facility at Sacred Heart Medical Center’s state-of-the-art RiverBend campus in Springfield. Dedicated solely to heart and vascular care, our new building features 72 single-occupancy patient suites, a 12,000-square-foot cardiac and pulmonary wellness center, and highly specialized diagnostic and procedural labs.

Since 1966, when Sacred Heart Medical Center first opened an intensive care cardiac unit, we have held fast to the principle and practice that teamwork is essential in determining the best prevention, diagnostic, and treatment options for each patient. Our outstanding outcomes are in large measure a result of our emphasis on patient-centered care and an adherence to the team approach.

We look forward to a continued collaboration with you in providing your patients with the latest and best medical treatments and lifestyle advice to ensure optimal well-being long into the future.

Sincerely,

Richard Padgett, M.D.
Executive Medical Director
Oregon Heart & Vascular Institute
Quality is Key

We want you to be confident in the quality of our program. That is why the Oregon Heart & Vascular Institute at Sacred Heart Medical Center presents this report. We believe our quality and multidisciplinary collaboration sets us apart. When you refer patients to the Oregon Heart & Vascular Institute, they will get not just one but a whole team of board-certified physicians providing the best state-of-the-art care we can deliver.

The 2009-2010 Quality Report of the Oregon Heart & Vascular Institute presents summaries of our surgical trends and approaches, as well as data on patient volume and outcomes.

For more information about Oregon Heart & Vascular Institute outcomes, visit www.ohvi.org.

To continuously improve patient outcomes and service, Oregon Heart & Vascular Institute clinical outcomes are compared with external benchmarks from the Society of Thoracic Surgeons (STS), American College of Cardiology (ACC), and Thomson-Reuters in the following public reporting initiatives:

- **Centers for Medicare and Medicaid (CMS) Hospital Compare**: [www.hospitalcompare.hhs.gov](http://www.hospitalcompare.hhs.gov). Reports AMI and heart failure process measures; mortality and readmission rates; and patient satisfaction.
Welcome to the Oregon Heart & Vascular Institute at Sacred Heart Medical Center

44 years of experience and innovation

1966
• Cardiac Intensive Care unit opens at Sacred Heart Medical Center

1968
• Progressive Cardiac Unit opens
• First cardiac pacemaker implanted

1969
• Foster Keene, MD, and Wesley Jacobs, MD, open cardiac catheterization lab

1970
• Cardiac Rehabilitation program established

1971
• Robert Hodam, MD, performs first open-heart surgery

1981
• Foster Keene, MD, performs first simple balloon angioplasty

1984
• Leonard Christie, MD, founds Oregon Heart Center
• Vascular Laboratory opens

1986
• Cardiac Rehabilitation program established

1991
• Atherectomy and cold tip laser cardiac catheterization offered

1992
• Vascular Laboratory becomes the first in Oregon granted full accreditation in all areas of vascular technology
• First cardiac defibrillator implanted
• First ablation procedure performed

1994
• First rotoblation performed
• First stent procedure performed

1996
• First off-pump coronary artery bypass surgery
• Oregon Heart Center’s 10,000th patient has coronary bypass surgery

1997
• First radial artery graft used in coronary artery bypass surgery
• Oregon’s first biplane electrophysiology lab opens at Sacred Heart

1999
• Sacred Heart is named to the nationwide list of Top 100 Hospitals for Cardiovascular Care
Oregon Heart & Vascular Institute
The Oregon Heart & Vascular Institute is known as one of the premier centers in the Pacific Northwest for providing state-of-the-art clinical services, medical excellence and quality outcomes combined with an exceptional and unique patient experience.

Our Vision
Every PeaceHealth patient will receive safe, evidence-based, compassionate care; every time, every touch.

Our Mission
We carry on the healing mission of Jesus Christ by promoting personal and community health, relieving pain and suffering, and treating each person in a loving and caring way.

Core Values: Respect • Stewardship • Collaboration • Social Justice

2000
- First endovascular aortic stent graft performed
- Echocardiography Laboratory becomes the first in Oregon to be granted full accreditation

2001
- First transmyocardial revascularization with CO2 heart laser
- First biventricular device implanted

2002
- Sacred Heart named to the nationwide list of Top 100 Hospitals for Cardiovascular Care

2003
- First drug-eluting stent procedure performed
- First brachytherapy procedure performed
- First operative maze procedure for atrial fibrillation

2004
- Oregon Heart Center becomes Oregon Heart & Vascular Institute
- First PFO closure (CardioSEAL) procedure performed
- First Minimaze procedure for atrial fibrillation

2005
- First Cryoablation procedure performed to treat arrhythmia
- First endograft repair of thoracic aortic aneurysm

2008
- Oregon Heart & Vascular Institute opens at RiverBend
- First laser treatment of superficial femoral artery

2009
- Robotic-assisted cardiovascular surgery program launches with the da Vinci® robotic surgery system

2010
- Neurosurgical Intervention program established for treating aneurysm, A.V.M. and stroke
- First robotic mitral valve repair
Comprehensive Services

The Oregon Heart & Vascular Institute at Sacred Heart Medical Center in Springfield, Oregon, is part of the PeaceHealth system of care. The interdisciplinary team at the Oregon Heart & Vascular Institute provides comprehensive, state-of-the-art diagnosis and treatment modalities.

Cardiology Consultative Services

- Arrhythmia Management (EP)
- AICD/Pacemaker Management
- Systolic and Diastolic Heart Failure Management
- Comprehensive Valve Clinic
- Preventive Cardiology Services: Coronary Risk Factor Assessment and Management
- Enhanced External Counterpulsation (EECP)
- Adult Congenital Heart Disease Clinic in Partnership with Oregon Health & Science University (OHSU)

Cardiac & Vascular Surgery

- Coronary Artery Bypass
- Valve Repair and Replacement
- Atrial Fibrillation Ablation (Minimaze)
- LV Volume Reduction (DOR)
- Robotic-assisted Procedures
- Endovascular Aortic Aneurysm and Dissection Repair

Electrocardiographic Services

- Stress Testing (ETT)
- Electrocardiogram (EKG), including Neonatal and Pediatric
- Holter and Event Monitoring
- Transtelephonic Arrhythmia Monitoring (TAM)
- Signal Average EKG

Electrophysiology Services

- Diagnostic EP studies including Adults with Congenital Heart Disease
- Ablations
  - Supraventricular
  - Ventricular
- Minimaze Treatment of Atrial Fibrillation
- Pacemaker Implantation
- Defibrillator Implantation
- Biventricular Pacemaker and Defibrillator Implantation

Nuclear Medicine

Accredited by ICANL

- Myocardial Perfusion Imaging (MPI)
- Multigated Acquisition Imaging (MUGA)
- All general Nuclear Medicine Imaging and Therapies

Diagnostic Imaging

Accredited by ICAEL and ICAVL

- Transthoracic (TTE) and Transesophageal Echo (TEE) including 3D
- Stress Echo (TME)
- Intracardiac Echo (ICE)
- Vascular Ultrasound
  - Lower Extremity Arterial Duplex
  - Renal Ultrasound
  - Transcranial Doppler
- Cardiac Magnetic Resonance Imaging (cMR)
- Multi Slice Cardiac CT Angiography and Calcium Score Determination

Invasive Services

- Coronary and Peripheral Angiography
- Endomyocardial Biopsies
- Cardiac & Peripheral Interventions: Angioplasty & Stents
- Percutaneous Atrial Septal Defect (ASD) & Patent Foramen Ovale (PFO) Repair
- Intra Aortic Balloon Pump (IABP)
Intravascular Ultrasound (IVUS)
Fractional Flow Reserve (FFR) – Pressure Wire
Peripheral Vascular Consultation
Interventional Oncologic Procedures
  • Catheter Directed Therapies
  • Image Guided Ablation
Uterine Fibroid Therapy
Vascular Bypass Surgery
Abdominal Aortic Aneurism (AAA) Repair by Endograft or Surgery

Neurovascular Interventions
  • Aneurysm Coiling
  • AVM Gluing
  • Neurosurgery

Wellness and Rehabilitation Services
Certified by the American Association of Cardiovascular & Pulmonary Rehabilitation
  • Phase 1, 2, and 3 Cardiac Rehabilitation
  • Pulmonary Rehabilitation
  • Screening for Vascular Disease (PAD)
  • Screening for Cardiovascular Disease
  • Options Tobacco Cessation Program
  • Weight Management Program
  • Nutritional Counseling and Cooking Classes
  • Community Education

Research
  • Affiliation with University of Oregon Department of Human Physiology
  • Active Clinical Trials Across All Heart and Vascular Disciplines

Teamwork, Dedication, and Experience
Hallmarks of Our Nursing Care

With 72 beds on two floors, the Oregon Heart & Vascular Institute at Sacred Heart Medical Center is a dedicated heart hospital featuring highly trained teams of nurses experienced in providing care for cardiovascular patients from admission through discharge.

The nurses — many with extensive experience — play a particularly important role in ensuring a positive outcome for patients in the post-surgical or post-procedural phase of their visit.

All Oregon Heart & Vascular Institute nursing staff must attain a high level of skill in specialized cardiac and vascular care procedures, including EKG interpretation, cardiac care, heart failure issues and intravenous medication administration.

Nursing staff caring for patients who have undergone thoracic and vascular surgeries have specialized training in such areas as chest tube management and temporary pacemaker care. Nursing staff caring for post-procedural cardiology patients, including those who have undergone interventional cardiology, have specialized training in areas such as femoral sheath removal, AMI and angina, and conscious sedation.

Registered Nurses on the inpatient floors are certified in Advanced Cardiac Life Support (ACLS) and Progressive Cardiac Clinical Nursing (PCCN). These RNs also are trained in providing continuous cardiac telemetry monitoring for rhythm abnormalities.
A Collaborative Approach to Care

The Oregon Heart & Vascular Institute at Sacred Heart Medical Center is comprised of area cardiologists, cardiothoracic surgeons, interventional radiologists, and vascular surgeons, partnering with researchers from the University of Oregon in Eugene.

All member physicians are active members of PeaceHealth’s Sacred Heart Medical Center medical staff and are board-certified.

The Institute provides care to patients with heart and vascular disorders, from prevention and diagnosis to treatment and rehabilitation, and is one of the busiest and most respected cardiac and vascular centers in the Northwest.

Working together with patients and using the latest in technology and clinical methods, Oregon Heart & Vascular Institute’s physicians, staff and researchers collaborate to provide excellent patient care with the best possible outcomes.

The cardiac care program at the Oregon Heart & Vascular Institute at Sacred Heart Medical Center maintains top-rated status both in the state and nationally for a variety of reasons, including a commitment to:

★ Always putting the patient first
★ Working together as a team
★ Pursuing excellence

Facility Highlights

In August 2008, the Oregon Heart & Vascular Institute opened a specially designed 156,000-square-foot facility at Sacred Heart Medical Center at RiverBend. The first of its kind in Oregon and one of very few in the nation, this five-story cardiovascular hospital within a hospital integrates multiple aspects of care at one location.

Features include:

- 72 private patient and family suites
- 94 telemetry beds
- 2 coronary catheterization suites
- 2 interventional radiology suites
- 1 biplane electrophysiology suite
- Advanced cardiac imaging facilities
  - 1 Philips Skylight gamma camera
  - 2 Philips Forte gamma cameras
  - 1 Philips Precedence SPECT-CT camera
  - 1 D-Spect camera
  - 2 64-slice CT scanners
  - Philips 1.5 MRI
- 4 exercise stress labs
- 3 cardiac operating suites including 1 with da Vinci® Robot capability
- A 12,000-square-foot wellness center with a walking track, two weight-training gyms, and aerobics studio

Dr. David Duke and the Cardiovascular Surgery team perform open heart surgery.
Cardiology/Vascular Step-Down Beds 72
Surgical Intensive Care Beds 12
Total Beds 84

Non-Surgical Procedures
Cardiac/Vascular Procedures
- Interventional Cardiac Procedures 997
- Interventional Vascular Procedures 860

Electrophysiology Procedures
- Total Electrophysiology Ablations 214
- Total Device Implants 471
- Permanent Pacemaker Implants 320
- Implantable Cardiac Defibrillator (ICD) Insertions 151

Diagnostic & Imaging Procedures
- Diagnostic Catheterization Procedures 841
- Diagnostic Vascular Procedures 427
- Electrophysiology Diagnostic Studies 18
- Stress Tests
  - Treadmill 2,573
  - MPI 1,866
- Echocardiograms (Echos) 8,670
- Electrocardiograms (EKGs) 40,360
- Noninvasive Vascular Lab Procedures 7,012

Surgical Procedures
- Open Heart Surgeries 487
- Robotic-Assisted Cardiac Surgeries 14

Thoracic & Cardiac Surgeries
- Coronary Artery Bypass Graft (CABG) Surgeries 249
- Valve Surgeries (Primary & Reoperations) 78
- Valve & CABG Surgeries 85
- General Thoracic Surgeries 203
- Surgical Procedures for Atrial Fibrillation 33

Vascular Surgeries
- General Vascular Surgeries 885

Rehabilitation Services
- Referral rate for surgical patients 100%

Comprehensive Case Review, Strong Sense of Teamwork Set the Oregon Heart & Vascular Institute Apart

At the Oregon Heart & Vascular Institute we intentionally collaborate across disciplines.

Whether Cardiology and Cardiac Surgery, Interventional Radiology and Vascular Surgery, or Thoracic Surgery and Pulmonology, we work together to provide the best care and outcome for your patients. Oregon Heart & Vascular Institute physicians, who come to Sacred Heart from other hospitals worldwide, repeatedly remark on the refreshing collegial and collaborative atmosphere found at RiverBend. There is no pressure to “keep the patient” just because the referral came to one service.

In addition, formal multidisciplinary case review occurs routinely for:
- Consultation to develop a treatment plan
- M&M review
- Instruction and improvement on complex cases

The Oregon Heart & Vascular Institute frequently collaborates with other cardiovascular experts throughout the PeaceHealth system and has adopted the cardiovascular improvement model to achieve high levels of quality.

The Quality Improvement Team meets monthly to review cases and discuss ways for delivering the best possible patient care.
Coronary Artery Disease

Oregon Heart & Vascular Institute cardiologists specialize in diagnosing and treating patients who have all stages of coronary artery disease, with the goal of managing symptoms and reducing the risk of heart attack and stroke.

Depending on the stage and severity of a patient’s condition, tailored treatments include:

- Catheter-based procedures (balloon angioplasty and stents)
- Surgery (traditional open-heart and minimally invasive procedures)
- Medications
- Lifestyle changes

A full range of diagnostic and interventional procedures is also available at the Oregon Heart & Vascular Institute at Sacred Heart Medical Center.

Through consultation with one another, our cardiologists, cardiovascular surgeons, vascular surgeons, interventional radiologists, and nuclear medicine specialists are dedicated to providing the safest, highest quality, and most state-of-the-art care designed to result in the best possible outcomes for the patient.

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John Wheland’s Story

As the owner of a Roseburg appliance store, John Wheland, 64, is a familiar face in his community. When he’s not working, he spends time in the desert photographing wild horses. On June 22, 2009 — the night before he was supposed to leave for a shoot — he ended up driving to the hospital.

“I started feeling pain in my arm,” he said. “I looked up symptoms of a heart attack online and thought, ‘I better do something.’”

After learning he needed aortic valve replacement with reconstruction of the aortic root, John decided to go to Oregon Heart & Vascular Institute at Sacred Heart Medical Center.

“My friend who happens to be a cardiologist said the cardiothoracic surgeons at Sacred Heart are the best. And she was right!” John said.

“I received outstanding care at Sacred Heart... and driving to Springfield was much better than having to go all the way to Portland!”

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Cardiothoracic surgeon Dr. Hoang Nguyen visits with a post-surgical patient.
**Oregon Heart & Vascular Institute Earns Excellence Rating**

The gold standard of clinical excellence in heart care is 3 stars from The Society of Thoracic Surgeons. In 2009, the Oregon Heart & Vascular Institute at Sacred Heart Medical Center achieved this highest category of quality designation for overall excellence.

The 3-star rating puts the Oregon Heart & Vascular Institute’s well-established cardiac care program in the top 11.7% of some 955 hospitals nationwide.

**Core Measure Quarterly Comparisons:**

**Acute Myocardial Infarction**

<table>
<thead>
<tr>
<th>Core Measure</th>
<th>Jul-Sep 2009</th>
<th>Oct-Dec 2009</th>
<th>Jan-Mar 2010</th>
<th>Apr-Jun 2010</th>
<th>OHVI Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin at Arrival</td>
<td>100%</td>
<td>100%</td>
<td>96.2%</td>
<td>98.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Aspirin Prescribed at Discharge</td>
<td>99.2%</td>
<td>99.2%</td>
<td>99.2%</td>
<td>100%</td>
<td>99.2%</td>
</tr>
<tr>
<td>ACEI or ARB for LVSD</td>
<td>85%</td>
<td>95.5%</td>
<td>100%</td>
<td>100%</td>
<td>94.8%</td>
</tr>
<tr>
<td>Adult Smoking Cessation Advice</td>
<td>95.7%</td>
<td>93.9%</td>
<td>100%</td>
<td>99.2%</td>
<td>99.6%</td>
</tr>
<tr>
<td>Beta Blocker Prescribed at Discharge</td>
<td>99.2%</td>
<td>98.3%</td>
<td>99.2%</td>
<td>100%</td>
<td>99.2%</td>
</tr>
<tr>
<td>PCI Received within 90 min of Arrival</td>
<td>86.4%</td>
<td>80%</td>
<td>100%</td>
<td>95%</td>
<td>76 out of 85: 89.4%</td>
</tr>
<tr>
<td>OHVI Total</td>
<td>161 out of 166: 97%</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

* OHVI Rate  National Rate  OHVI Total Volume 1/1/09 – 12/31/09

*Data unavailable at time of publication (national statistics provided by JCAHO are always approximately 6 months behind).*
Non-Invasive Diagnostics

The Oregon Heart & Vascular Institute offers several non-invasive diagnostic tools — electrocardiogram, treadmill, and myocardial perfusion imaging — to determine a patient’s condition and the best treatment protocols.

Diagnostic Test Volumes

These images below show the difference between end systole (when the heart is the fullest) and end diastole (when the heart has fully contracted). This is used for wall motion abnormalities and ejection fraction measurements. The physician can also view these images dynamically to watch the heart “beating”.

Dr. Mathews Fish (pictured in foreground) is one of two Oregon Heart & Vascular Institute physicians working with Andrew Einstein of Columbia University on a national study to determine if it is possible to reduce the amount of radiation administered to patients undergoing myocardial perfusion SPECT (Single Photon Emission Computed Tomography) studies without compromising test results and effectiveness. The other investigator in the study is Dr. Richard Padgett, Executive Medical Director of the Oregon Heart & Vascular Institute.
The Oregon Heart & Vascular Institute performs percutaneous coronary interventions (PCI) for patients with simple and complex coronary artery disease. In 2009, 1,935 diagnostic procedures and 997 PCIs were performed in the cardiac catheterization labs at both the Oregon Heart & Vascular Institute and Oregon Cardiology.

**Cardiac Catheterization Lab**

The Cath Lab Team works collaboratively to provide a range of effective procedures.

The Cath Lab Team works collaboratively to provide a range of effective procedures.

The Oregon Heart & Vascular Institute at Sacred Heart Medical Center features a Cath Prep Recovery Team of nurses dedicated solely to assisting patients before and after cath lab procedures and cardiovascular surgery.

**Cath Lab Volumes***

<table>
<thead>
<tr>
<th>Year</th>
<th>Diagnostic Cases</th>
<th>PCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>1968</td>
<td>1015</td>
</tr>
<tr>
<td>2008</td>
<td>1756</td>
<td>969</td>
</tr>
<tr>
<td>2009</td>
<td>1935</td>
<td>997</td>
</tr>
</tbody>
</table>

* Includes Oregon Cardiology and OHVI procedures performed at Sacred Heart Medical Center.

Dr. Ramakota Reddy performs an electrophysiology procedure.
Surgery: Volume

More than 18,000 patients have had open-heart procedures since the first open-heart surgery at Sacred Heart Medical Center in 1971. Sacred Heart has the second highest volume of open-heart surgeries in the state and the third highest in the Northwest. In general, programs with higher volumes have better outcomes.

Distribution of Cardiac Surgeries - 2009

- Isolated CABG Surgeries: 255
- CABG & Valve: 85
- Valve Only: 118

Total Open Heart Surgeries: 487

Cardiac Surgery Volumes

<table>
<thead>
<tr>
<th>Year</th>
<th>Other Cardiac Surgery</th>
<th>CABG &amp; Valve</th>
<th>Valve Only</th>
<th>CABG Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>26</td>
<td>96</td>
<td>69</td>
<td>296</td>
</tr>
<tr>
<td>2008</td>
<td>40</td>
<td>69</td>
<td>111</td>
<td>222</td>
</tr>
<tr>
<td>2009</td>
<td>85</td>
<td>118</td>
<td></td>
<td>255</td>
</tr>
</tbody>
</table>

Below: Open-heart surgery at the Oregon Heart & Vascular Institute at Sacred Heart Medical Center.
Surgery: Mortality Rates

The mortality rate for all major cardiac procedures and for coronary artery bypass graft (CABG) at the Oregon Heart & Vascular Institute at Sacred Heart Medical Center has consistently been below the rate of other hospitals nationwide with similar volumes as reported by the Society for Thoracic Surgeons.

The Society for Thoracic Surgeons has a comprehensive rating system that allows for comparisons regarding the quality of cardiac surgery among hospitals across the country. Approximately 11.7% of the 955 participating hospitals nationwide receive the “3 star” rating, which denotes the highest category of quality.

In the current analysis of national data covering 2009, the Oregon Heart & Vascular Institute has earned the Society of Thoracic Surgeons’ “3 star” rating. The low mortality rate at the Oregon Heart & Vascular Institute is one of the reasons why.

The low mortality rate is one of the reasons why the Oregon Heart & Vascular Institute has earned the Society of Thoracic Surgeons’ highest rating.

Left: Oregon Heart & Vascular Institute’s cardiothoracic surgeons Dr. Hoang Nguyen, Dr. David Duke, Dr. Warren Glover, and Dr. Paul Koh.
From Door to Balloon: Just 65 minutes

Door to balloon time is the time from arrival in the Emergency Department to PCI balloon inflation for patients with ST-elevation acute myocardial infarction (STEMI). The American College of Cardiology practice guidelines recommend a goal of 90 minutes or less from the patient's arrival in the Emergency Department to balloon inflation for PCI procedures. In 2009, Oregon Heart & Vascular Institute's door to balloon time was an average of 65 minutes.

Keith Hoehn's Story

As chief of the Lowell Fire Department, Keith Hoehn had seen his share of medical emergencies. So when he started to experience some suspicious symptoms himself, he knew exactly what to do.

"When I suspected I was having a heart attack, I called 911," he said. "Because I went to Sacred Heart, I got the angioplasty I needed faster."
Parallel Process Cuts Time To Treatment

In March 2006, Oregon Heart & Vascular Institute and Sacred Heart Medical Center launched an effort to significantly reduce “door to balloon” time — the number of minutes from when a person having a heart attack arrives at the Emergency Room to when the patient receives life-saving treatment.

By engaging a multidisciplinary team of skilled professionals who emphasize a parallel response process, Oregon Heart & Vascular Institute at Sacred Heart has cut its door to balloon time in half, from 112 minutes in 2004 to 65 minutes or less in 2009, making it one of the top 25% of hospitals nationwide by this measure.

Here’s how Oregon Heart & Vascular Institute’s Cath Alert System works: When area paramedics respond to a call, they are trained to immediately assess the type of cardiac event by administering an EKG and a brief triage patient history. If the patient is determined to be having a STEMI, the paramedic contacts an Emergency Room physician and Oregon Heart & Vascular cardiologist for diagnosis confirmation. The Cath Lab staff is then called in to prepare to provide percutaneous coronary intervention for the patient. The patient arrives at the hospital, is expedited through registration, and then is rapidly transferred to the Cath Lab where life-saving treatment gets underway.

“With this system you move from a sequential process — where the patient is brought to the ER and evaluated and the Cath Team is called in — to a parallel process, where patient and team converge at the optimum time, even during off hours,” says Dr. Richard Padgett, MD, cardiologist with Oregon Cardiology and medical director at Oregon Heart & Vascular Institute. “Our Cath Alert System means we are able to respond quicker and provide better quality care.”

Changes Improve Outcomes

In addition to partnering with the Emergency Medical Services responders from Eugene Fire, Springfield Fire & Life Safety, South Lane County Fire & Rescue, and Lane Rural Fire/Rescue, the Oregon Heart & Vascular Institute and Sacred Heart Medical Center also took the following steps to improve care and patient outcomes:

- Established evidence-based standardized protocols and order sets
- Conducted extensive, comprehensive patient and staff education
- Invested in new technologies
- Recruited and trained outstanding physicians and staff
- Implemented a sophisticated system and team for data analytics
- Established an OHVI Quality Council
- Created teams for strategic review of performance data and refinement of improvement efforts

AMI Inpatient Mortality

“Parallel Process Cuts Time To Treatment”

“Changes Improve Outcomes”

“AMI Inpatient Mortality”
Robotic-Assisted Heart Surgery

Robotic-assisted surgery is a minimally invasive approach to treat coronary artery disease and mitral regurgitation.

In 2009, the Oregon Heart & Vascular Institute at Sacred Heart Medical Center began using the da Vinci® Si Surgical System, providing surgeons with enhanced capabilities including high-definition 3D vision and a magnified view. Though often called a “robot,” the system is actually controlled by the surgeon, giving the surgeon the ability to make smaller, more precise movements of tiny instruments inside the body. The robotic-assisted surgery takes place through very small incisions — about the size of a dime — between the ribs.

For coronary bypass, robotic-assisted surgery means not having to have a sternotomy (open chest incision) or use a heart-lung machine.

For mitral valve-repair, robotic-assisted surgery is much less invasive than the traditional approach.

Benefits to the patient of the robotic-assisted procedure over open surgery include:

- Shorter hospital stay and faster recovery
- Less pain, scarring and risk of infection
- Significantly less blood loss and need for blood transfusions
- Quicker return to normal activities
- Significantly less risk of heart attack and stroke following surgery
- Superior results with less need for repeat surgery
- Significantly higher patient satisfaction

Robotic-Assisted Heart Surgery: Intracardiac Tumor (Left Atrial Myxoma)

**Subject:** An otherwise healthy 68-year-old woman presented with upper respiratory symptoms and TIA.

**Diagnostic:** Echocardiogram detected a mass in the left atrium, suspected to be a myxoma. This type of benign tumor obstructs blood flow through the heart chambers and increases risk of stroke. Surgery is generally recommended to remove the myxoma.

**Treatment:** Cardiothoracic surgeons David Duke, MD, and Paul Koh, MD, performed a robotic-assisted cardiac tumor excision using the da Vinci® Si Surgical System at Oregon Heart & Vascular Institute at Sacred Heart Medical Center. The minimally invasive procedure allowed them to forgo sternotomy in favor of small incisions between the ribs that provide access to the thoracic cavity. The surgeon’s hands control the movement and placement of the robotic instruments through the incisions.

**Outcome:** The surgery occurred without complication on a Thursday. The patient was sitting up, reading the newspaper Friday, and discharged Monday. Full recovery and return to work are expected to occur within two to four weeks, as opposed to the eight to 12 weeks with traditional open surgery via sternotomy.
PCI, CABG or Both

Percutaneous coronary intervention (PCI) encompasses a variety of procedures used to treat patients with diseased arteries of the heart or with a heart attack caused by a large blood clot that completely blocks the artery.

Typically, PCI is performed by threading a slender balloon-tipped tube catheter from the femoral or radial artery to a trouble spot in an artery of the heart. The balloon is then inflated, compressing the plaque and dilating the narrowed coronary artery so that blood can flow more easily. This is often accompanied by inserting an expandable metal stent to keep the artery open.

PCI is recognized as the best treatment for smaller lateral coronary arteries while bypass grafting with the left internal mammary artery (LIMA) is the best treatment for LAD lesions. With robotic-assisted technology, Oregon Heart & Vascular Institute specialists are able to provide both. The LIMA graft is done with robotic-assisted technology through small ports and off-pump in the operating room. Then the patient comes back to the cath lab for stenting.

Hybrid Cardiothoracic Surgery: Robotic-assisted CABG followed by PCI

Subject: A 67-year-old man with several medical conditions presented with symptoms of angina, including chest pain and pressure.

Diagnostic: A coronary angiogram showed significant blockages in the left anterior descending coronary artery and the circumflex coronary artery.

Treatment: Surgeons at the Oregon Heart & Vascular Institute opted to perform a hybrid procedure of surgical revascularization of the left anterior descending coronary artery, followed by percutaneous stenting of the circumflex coronary artery. The surgical team, lead by David Duke, MD, made small incisions in the left chest using the da Vinci® Si Surgical System to prepare the left internal mammary artery (LIMA) for use as a bypass conduit. Through a small incision in the left chest, using off-pump surgical techniques, surgeons successfully attached the LIMA to the left anterior descending coronary artery.

Outcome: The minimally invasive procedure allowed surgeons to forgo sternotomy, resulting in less pain, shorter recovery time, less scarring and lower risk of complication for the patient. The patient did well and was discharged three days after surgery. Eight weeks later, he returned to the Oregon Heart & Vascular Institute, where Stephen Cook, MD, performed percutaneous intervention, placing drug-eluting stents into the circumflex artery. As a result of the hybrid procedure, the patient received the optimal treatment for each arterial system, utilizing a minimally invasive, collaborative approach. The patient was free of angina symptoms at his last follow-up appointment.
Cardiac Rhythm Disorders

A multidisciplinary team of cardiologists, cardiovascular surgeons, electrophysiologists, anesthesiologists, and radiologists at Oregon Heart & Vascular Institute at Sacred Heart Medical Center work together to diagnose and prevent cardiac rhythm disorders and determine the best treatment options for each patient.

Atrial fibrillation (a-fib) is the most common abnormality of heart rhythm, affecting more than 2 million people in the United States. Treatment depends on the type of a-fib a patient has:

- Paroxysmal (comes and goes)
- Persistent (stays until treated with a shock or medicine)
- Permanent or chronic (no therapy seems to stop it)

If lifestyle changes and medication are not enough, cardioversion is an option. Advanced therapies to permanently cure atrial fibrillation include surgical as well as minimally invasive “maze” procedures.

Non-Invasive Diagnostic Volumes: Monitors

<table>
<thead>
<tr>
<th>Year</th>
<th>Holter Monitor</th>
<th>Event Monitor</th>
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<tr>
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<td>470</td>
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<tr>
<td>2009</td>
<td>2,131</td>
<td>464</td>
</tr>
</tbody>
</table>

The Oregon Heart & Vascular Institute was the first medical center in Oregon to offer cutting-edge cryotherapy for the treatment of arrhythmia.
**Device Implantation**

The Oregon Heart & Vascular Institute's electrophysiology laboratory implants a range of cardiac rhythm management devices, including pacemakers and implantable cardiac defibrillators, which dramatically reduce arrhythmia and mortality in at-risk individuals.

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**Device Implantation Volumes & Distribution**

![Bar Chart]

Cardiac Ablations

In 2009, the Oregon Heart & Vascular Institute’s two board-certified electrophysiologists performed 214 cardiac ablations. Cardiac ablation involves inserting an electrode-bearing catheter into a blood vessel in either the neck or groin and threading it to the heart, where it can pinpoint the location of the faulty electrical site. Once the damaged site is confirmed, energy — either radiofrequency or cryotherapy — is used to destroy a small amount of tissue, ending the disturbance of electrical flow and restoring healthy heart rhythm.

Catheter ablation is most often used to treat rapid heartbeats that begin in the upper chambers of the heart. The procedure can also be used to successfully treat atrial fibrillation.

At the Oregon Heart & Vascular Institute at Sacred Heart Medical Center, electrophysiologists and surgeons work closely together, whether during a cardiac ablation procedure or minimally invasive surgery, to thoroughly test and verify that the procedure has the intended therapeutic outcome for the patient.

Albert Dietz’s Story

Albert Dietz’s adventure with atrial fibrillation began in early 2004, when the Central Point recreational pilot first experienced heart palpations. These irregular rhythms of the heartbeat would sometimes last for hours, causing concern and consternation.

“My first thought was, I’m going to have to sell my airplane,” Albert recalled of the initial diagnosis, which came in response to a Federal Aviation Administration (FAA) flight physical. That diagnosis was atrial flutter, an irregular rhythm of the heart’s upper chambers. He underwent catheter ablation in May 2005, but that was unsuccessful. Then the medications caused such bradycardia, that he got a pacemaker implanted.

While he flew from doctor to doctor over the next two years in search of a cure for his atrial fibrillation or a-fib, his pilot’s license was suspended, so he sold his airplane.

Then he landed on the doorstep of Dr. James McClelland, Medical Director of Heart Rhythm Services at Oregon Heart & Vascular Institute at Sacred Heart Medical Center. “I got on the Internet and discovered there was a new method to halt a-fib, called Minimaze,” Albert said, “and that a Dr. McClelland in Eugene was doing it. I managed to get an appointment with him.”

Dr. McClelland eventually proposed the Minimaze for Albert. “Dr. McClelland and Dr. David Duke (the cardiac surgeon) were completely upfront about the Minimaze procedure,” Albert said. “And my only surprise was that it worked so well. I was very impressed.”

The FAA was impressed as well. Just 18 months after the heart surgery that fixed his a-fib, Albert got his pilot’s license back. “It’s a third class license that means I can fly single-engine planes over land,” he said.

He was grounded by a challenging heart condition, but after his experience at Oregon Heart & Vascular Institute at Sacred Heart, Albert Dietz is flying again.
Arrhythmia Surgery

Performed on the beating heart, Minimaze is a minimally invasive procedure during which the cardiac surgeon destroys a small amount of abnormal tissue thought to be the source of atrial fibrillation. The destroyed tissue can no longer generate or conduct electrical impulses, the abnormal signal is disrupted, and the heart assumes its normal rhythm.

The Oregon Heart & Vascular Institute at Sacred Heart Medical Center has been successfully performing Minimaze procedures since 2005, when it became one of only three formal physician training sites for the procedure in the United States.

Dr. David Duke, a cardiovascular surgeon, and Dr. James McClelland, a cardiologist with a specialty in electrophysiology, together perform the Minimaze procedures at the Oregon Heart & Vascular Institute. This team approach, as well as the minimally invasive nature of the procedure, contribute to long-term success for most patients with atrial fibrillation.

“Previous procedures to correct irregular heartbeat have not been nearly as effective in part because they were either all about surgery or all about electrophysiology,” said Dr.

Maze Surgery Volumes

Patient Criteria for Minimaze Procedure for Atrial Fibrillation

General Criteria
- Age 35-75
- History of several failed antiarrhythmics
- No prior cardiovascular surgery

Specific Criteria
- Paroxysmal AF, with symptoms
- Normal or nearly normal left atrial size
- Normal or nearly normal ejection fraction
- No need for other cardiac surgery
- Normal body habitus
Comprehensive Valve Center

The Oregon Heart & Vascular Institute takes a multidisciplinary approach to valve problems, with cardiologists, pulmonologists, anesthesiologists, surgeons, and intensivists all working together to assist patients, particularly those with complex cases.

This teamwork concept now extends to the referring physician through the Oregon Heart & Vascular Institute’s new Comprehensive Valve Center, led by cardiologist Dennis Gory, MD.

Not only can patients be treated on site, but referring physicians also have a direct line to Comprehensive Valve Center specialists for in-the-field consultations. Referring physicians may also participate on their patient’s case in the team’s weekly case review. The program is designed to assist referring physicians so that they have the tools required to provide high-level local treatment to patients with valve issues.

The Comprehensive Valve Center will not only ensure standardized care for valve patients, but also that they have access to the full-range of options, from lifestyle advice to medication to surgery and in the future to the repair and replacement of valves through percutaneous procedures.

The Comprehensive Valve Center physician consult line is: 888-240-6484.

Dennis Gory MD is leading the Comprehensive Valve Center at the Oregon Heart & Vascular Institute

The PARTNER-ship with University of Washington

Oregon Heart & Vascular Institute’s multidisciplinary team of specialists is affiliated with the University of Washington in a continuing collaboration stemming from participation in a national research treatment trial — known as PARTNER (Placement of AoRTic TraNscathetER Valves Trial) — for an innovative new therapy for very high risk or inoperable patients with aortic valve stenosis. This collaborative program, currently available only at a few academic medical centers nationwide, is the only one of its type in Oregon.

The PARTNER trial compares the safety and effectiveness of the Edwards SAPIEN transcatheter heart valve to that of valve replacement surgery in high-risk, symptomatic patients with severe aortic stenosis. Potentially an enormous breakthrough for very sick patients who require aortic valve replacement but are at high risk of mortality from traditional surgery, the SAPIEN valve is placed percutaneously. Oregon Heart & Vascular Institute’s team performs the initial balloon valvuloplasty while the percutaneous bio-prosthetic valve is deployed at the University of Washington Regional Heart Center.

Patients who may be candidates for this PARTNER-ship treatment include those who have:

- Advanced age (usually greater than 80 years)
- Previous sternotomy for cardiac procedures
- Previous radiation to the chest
- Porcelain of the ascending aorta
- Frailty or debility
- A Society of Thoracic Surgeons predicted risk of mortality for surgery of ≥ 10%
- Aortic valve area of ≤ 0.8cm²
- Cerebral or peripheral vascular disease, renal insufficiency, or other significant co-morbidities

The PARTNER-ship is the PARTNER trial comparing the safety and effectiveness of the Edwards SAPIEN transcatheter heart valve to that of valve replacement surgery in high-risk, symptomatic patients with severe aortic stenosis.

Non-Invasive Diagnostic Volumes:
Echocardiograms

<table>
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<tbody>
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<td>9,176</td>
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<tr>
<td>2009</td>
<td>8,670</td>
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</table>

The Oregon Heart & Vascular Institute’s ECHO Lab is accredited by the Intersocietal Commission for the Accreditation of Echocardiography Laboratories (ICAEL).
Oregon Heart & Vascular Institute specialists are now able to employ 3-dimensional real-time echocardiogram imaging. Using an ultrasound probe with an array of transducers, the 3-D real-time image enables detailed anatomical assessment of cardiac pathology, particularly valvular defects and cardiomyopathies.

Valve Surgery: Volumes

Minimally invasive valve surgery is offered at the Oregon Heart & Vascular Institute. Techniques include the use of very small incisions and robotic-assisted surgery. Minimally invasive techniques are associated with reduced trauma and pain, shorter recovery times, and less likelihood of infection than traditional surgery using sternotomy.

Eileen Cotnam’s Story

When Eileen Cotnam isn’t in her yard planting flowers and pulling weeds, she’s perfecting her golf swing at Roseburg’s Stewart Park Golf Course. At 72 years old, she feels great — and definitely wasn’t expecting to hear she needed an aortic valve replacement.

“I was really surprised when my doctor told me I needed surgery,” she said. “Luckily, I knew exactly where I wanted to go for my procedure.”

Eileen’s sister-in-law had previously had surgery at Sacred Heart Medical Center and raved about it. Eileen said she didn’t have to think twice about going to RiverBend’s Oregon Heart & Vascular Institute.

“I told my doctor I wanted to go where I knew I’d receive excellent care,” she said. “Initially, he wanted to send me to Portland. By choosing to go to Sacred Heart, I was getting the hospital with the great reputation. I loved that it was close to my home so my family could come visit me.”

On August 4, 2009, Eileen had her operation with Dr. Duke. Just a few weeks later, she returned happily to the green — though she continues to rave about her stay at RiverBend.

“Everyone at RiverBend was helpful, kind and compassionate,” she said. “I’ll be telling anyone who needs cardiovascular surgery to go to Sacred Heart!”
Heart Failure Care

The Oregon Heart & Vascular Institute at Sacred Heart Medical Center offers a broad range of state-of-the-art services and programs — diagnostic, medical, preventive and surgical — for patients with heart failure.

Because heart transplant surgery is not available at Sacred Heart, the Oregon Heart & Vascular Institute has established a unique relationship with Oregon Health & Science University in Portland for advanced heart failure patients who are to undergo implantation of left ventricular assist devices (LVAD) or heart transplant surgery there. This collaborative program, currently available at major academic medical centers nationwide, is the only one of its type in Oregon.

The Oregon Heart & Vascular Institute provides pre-operative and post-operative care, while the LVAD implant or heart transplant surgery itself takes place in Portland. This arrangement greatly benefits patients who get to remain in their home communities for all care before and after their procedures in Portland.

In addition to the collaboration with OHSU, our heart failure specialists work closely with hospitalists, emergency room teams, and primary care physicians, communicating the latest protocols for how to care for heart failure patients.

Heart Failure Discharges

The Oregon Heart & Vascular Institute is a high-volume facility, with 349 heart failure discharges in 2009.

The Oregon Heart & Vascular Institute’s team of specialists focuses on providing a range of options, including heart healthy cooking classes, for patients with heart failure.
Heart Failure: Highly Rated Care

The Oregon Heart & Vascular Institute’s heart failure care is rated highly in comparison to other hospitals with similar volumes across the country in core measures established by the Joint Commission. In 2009, heart failure specialists at the Oregon Heart & Vascular Institute at Sacred Heart Medical Center provided discharge instructions in 86.6 percent of cases compared with 85.6 percent nationally. The Oregon Heart & Vascular Institute heart failure care specialists provided Left Ventricular Function assessment in 100 percent of cases compared with the national average of 97.6 percent, and ACE-I or ARB for LVSD in 97.3 percent of cases compared with the national average of 93.7 percent.

Core Measure Quarterly Comparisons:
Heart Failure

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<td>Jul-Sep 2009</td>
<td>86.1%</td>
</tr>
<tr>
<td>Oct-Dec 2009</td>
<td>86.9%</td>
</tr>
<tr>
<td>Jan-Mar 2010</td>
<td>88.1%</td>
</tr>
<tr>
<td>Apr-Jun 2010</td>
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</tr>
<tr>
<td>OHVI Total</td>
<td>68.8%</td>
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<table>
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<tr>
<th>Adult Smoking Cessation Advice</th>
<th>ACE-I or ARB for LVSD</th>
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<tbody>
<tr>
<td>Jul-Sep 2009</td>
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<td>100%</td>
</tr>
<tr>
<td>OHVI Total</td>
<td>98.8%</td>
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Leonard Hilaire’s Story

It was 1998 when Leonard Hilaire III of Corvallis visited his primary care doctor complaining of extremely low energy and difficulty catching his breath. At the hospital later that day, Leonard was diagnosed with heart failure and told that without a transplant he’d be lucky to live another two years.

“I really thought about it,” he said, “and decided that since there were no guarantees, I would forego the transplant and do the best I could with what nature gave me.”

In addition to overhauling his diet, embarking on an exercise program, minimizing stress, going on medication, and relentlessly exploring alternatives to heart transplant surgery, Leonard sought out a cardiologist who he thought would be appropriately supportive of his disease management plan.

It took a little more than a decade and some false starts with others before Leonard found Dr. Matthew Trojan and the team at Sacred Heart Medical Center’s Oregon Heart & Vascular Institute last year.

“Everything I’ve experienced here has been excellent, from the technology and equipment to the beautiful facility and even the administrative staff. I’ve never had to wait and everyone is so helpful,” he said.

As a testament to this sentiment, Leonard points out that he has entrusted his care to the team at the Oregon Heart & Vascular Institute, a 45-minute drive one way.

“I’m willing to go the extra mile for the service,” he said. “And I’m pretty keen on Dr. Trojan, too.”
Comprehensive Vascular Care

For patients with vascular problems such as aneurysms, carotid artery disease, peripheral artery disease, venous blood clots, and claudication, the Oregon Heart & Vascular Institute at Sacred Heart Medical Center offers a unique team approach. Our interventional radiologists and vascular surgeons partner with the patient to determine the procedure that assures the best overall outcome. The emphasis is on:

- Comprehensive diagnostic studies;
- An evaluation of all options available, from non-invasive or minimally invasive steps to surgery; and
- The convening of a multidisciplinary team that discusses all the options and settles on the best practices for the patient.

The team also uses post-treatment peer review to examine steps that were taken in particular cases. This process scrutinizes treatment decisions and patient outcomes in order to continually improve care.

Vascular Disease Interventions

The Oregon Heart & Vascular Institute’s vascular interventional radiologists specialize in the use of advanced medical technology to accurately diagnose and treat vascular disease. They use a wide array of radiological procedures that enable them to more frequently employ minimally invasive treatments that help patients avoid open surgery, reduce recovery time, and minimize hospital stay. The Oregon Heart & Vascular Institute’s interventional radiologists use state-of-the-art fluoroscopy, computed tomography (CT), magnetic resonance imaging (MRI) and catheter-based angiography on patients with vascular conditions.

The Oregon Heart & Vascular Institute’s diagnostic vascular laboratory performed over 7,000 non-invasive diagnostic studies last year.
Vascular Surgery

The Oregon Heart & Vascular Institute’s vascular and endovascular surgery program provides care that is second to none in Oregon. In 2009, the Oregon Heart & Vascular Institute at Sacred Heart Medical Center performed 885 vascular surgeries.

The surgery team specializes in aortic stent grafts for abdominal aortic aneurysms, thoracic stent grafting, and carotid stenting. Stent grafting is an excellent option for patients at high risk of complications from conventional more-invasive surgery.

The team is particularly proud of its work using endovascular techniques for ruptured abdominal aortas or ruptured thoracic aortas. Endovascular techniques are in many circumstances superior to open surgery and less invasive than robotic or laparoscopic surgeries.

For patients who have suffered a stroke or who are at high stroke risk from carotid plaque, the team offers advanced minimally invasive options, including carotid endarterectomy, or carotid stenting for patients who cannot undergo surgery.

Options available for lower-extremity vascular disease include angioplasty and stenting procedures for severe peripheral vascular disease. Surgical procedures include minimally invasive interventions, including endarterectomy, vessel repair or replacement and bypass surgery using a vein or synthetic graft. Alternative minimally invasive procedures include balloon angioplasty, sometimes followed by stent implantations.

For patients who suffer from claudication, the Oregon Heart & Vascular Institute offers percutaneous interventions, and when those are exhausted, all types of operative bypass procedures.

Endovascular Neurosurgery Available at Oregon Heart & Vascular Institute

The Oregon Heart & Vascular Institute at Sacred Heart Medical Center has broadened its vascular surgery program by adding the region’s first endovascular neurosurgeon, Dr. Erik Hauck, who specializes in treating cerebrovascular brain disorders.

Dr. Hauck’s focus is on cerebrovascular neurosurgery and interventional treatment for acute stroke, aneurysms, transient ischemic attacks and related disorders. Procedures he employs include neurovascular aneurysm coiling, neurovascular AVM embolization and neurovascular angioplasty and stenting.

The addition of Dr. Hauck allows the Oregon Heart & Vascular Institute team to offer patients access to complete and comprehensive treatment for the entire vascular system.
THORACIC DISEASE

Thoracic Surgery

Oregon Heart & Vascular Institute thoracic specialists diagnose and treat diseases of the lung and esophagus, offering state-of-the-art care with a multidisciplinary patient-centered approach. Patients with thoracic or pulmonary problems are highly supported with a broad range of services from cutting-edge screening techniques to the latest advances in minimally invasive surgical procedures, including stereotactic body radiation therapy for intrathoracic lesions. This therapy has been shown to improve survival rates for patients with inoperable early-stage lung cancer.

Hallmarks of the thoracic department at the Oregon Heart & Vascular Institute include:

- Excellent pulmonologist/critical intensivist care support
- Stable and responsive office staff that make the referral process easy and straightforward
- Experienced nurses who help guide patients through the medical process
- Care provided by fully-trained board-certified attending physicians
- Twice-monthly case reviews

In 2009, the Oregon Heart & Vascular Institute performed 203 thoracic surgeries.

In addition, Sacred Heart Medical Center offers patients a convenient location for their care: Willamette Valley Cancer Institute and Research Center and Oregon Lung Specialists are co-located on the RiverBend campus.
Cardiovascular Wellness and Rehabilitation

A highlight of the patient-centered care provided by Oregon Heart & Vascular Institute at Sacred Heart Medical Center is the comprehensive on-site cardiovascular wellness and rehabilitation program.

At the Oregon Heart & Vascular Institute, cardiovascular care — including exercise, dietary guidance, holistic health, and tobacco cessation programs — is critical to patients’ long-term success in coping with chronic disease. “This is not just cardiac rehabilitation,” according to Program Manager Sarah Grall, M.S. “It’s a disease management and wellness program.”

With a brand new 12,000-square-foot facility at RiverBend that includes gyms, classrooms and a demonstration kitchen, the Oregon Heart & Vascular Institute provides a physician-supported wellness and rehabilitation care program for cardiac and pulmonary patients as well as for non-disease manifested people who want to attain good health.

Nearly 70% of patients elect to use the Institute’s wellness and rehabilitation services for ongoing health management for many years after their cardiovascular or pulmonary crisis. Experience shows that the longer cardiac patients stay with outpatient rehabilitation programs, the better their health and the lower the rate of subsequent events.

Timothy Foelker’s Story

The Oregon Heart & Vascular Institute at Sacred Heart Medical Center was there with expert systems and specialists for 51-year-old Timothy Foelker when he arrived by ambulance at the hospital in the midst of suffering a heart attack.

After his procedure, Oregon Heart & Vascular Institute was also there to help Timothy regain his strength. Through supervised weekly exercise sessions at Oregon Heart & Vascular Institute’s state-of-the-art cardiovascular wellness and rehabilitation program, Timothy learned how to improve his diet, reduce stress, and incorporate exercise into his regular routine.

“I expected the care to be top notch,” he said. “And it was.”

Facility Highlights

- Two gyms
- Aerobics studio
- Walking track
- Weight training
- Reference library
- Demonstration kitchen

Inpatient Transition

Two times per day, cardiac rehabilitation staff assess post-surgical patients at the Oregon Heart & Vascular Institute at Sacred Heart Medical Center. This approach, which was implemented in 2009, has resulted in lower complication rates, shorter hospital stays, and higher patient satisfaction.
Cardiovascular Disease Risk Factor Screening Offered

Cardiovascular disease is the leading cause of death in the United States even though it is largely predictable and preventable.

The Oregon Heart & Vascular Institute at Sacred Heart Medical Center offers a risk factor screening called “Know Your Numbers” to the general public with no physician referral necessary. Screening reports are provided to the primary care physician.

The $59 screening is designed to help people learn more about their individual risk factors for heart disease as well as provide prevention and treatment strategies.

Comprehensive Services

- Inpatient and outpatient cardiac rehabilitation
- The “Weigh to Wellness” weight management program
- The only medically based tobacco cessation program in the area
- Nutrition consultation and education
- Holistic health classes in yoga, tai chi and meditation
- A wide range of cardiovascular exercise options
- 6-minute walk evaluations

Pulmonary Rehabilitation

Oregon Heart & Vascular Institute’s Cardiovascular Wellness and Rehabilitation specialists offer a pulmonary rehabilitation program for patients whose quality of life has been affected by chronic lung disease such as asthma, chronic bronchitis, or restrictive lung disease.

A health care provider referral is required.

The program focuses on breathing re-training, balance and flexibility, and improving stamina to participate in daily activities despite chronic lung disease.

A patient’s initial visit with a respiratory therapist includes a review of the person’s medical history and diagnostic test results. Together, the patient and therapist develop individual goals for exercise and education. A multidisciplinary team customizes treatment sessions and evaluates participants’ progress. Patients who complete the exercise conditioning and education sessions may participate in the medically supervised exercise program.

In addition to the supervised exercise program, pulmonary rehabilitation specialists provide tips for:

- Keeping lungs clear
- Supporting pulmonary health through nutrition
- Recognizing signs of infection
- Managing medications
Cardiologists

RICHARD PADGETT, MD
Executive Medical Director

Dr. Padgett is a board-certified cardiologist with Oregon Cardiology and Executive Medical Director of the Oregon Heart & Vascular Institute at Sacred Heart Medical Center. He earned his undergraduate degree from the University of North Carolina in 1984, and his medical degree from the University of North Carolina School of Medicine at Chapel Hill in 1988. He served his residency and internship in internal medicine at the University of Iowa Hospital, and completed a fellowship in cardiovascular disease at the University of Iowa in 1994. Dr. Padgett conducted vascular research at the Harvard School of Medicine in 1996. He also served a fellowship in interventional cardiology at the University of Auckland in New Zealand in 2003. Dr. Padgett’s specialties are interventional and preventive cardiology.

PHOEBE ASHLEY, MD, FACC
Medical Director, Cardiovascular Wellness

Dr. Ashley is a board-certified cardiologist with Oregon Cardiology and is the Medical Director for the Cardiovascular Wellness Program at the Oregon Heart & Vascular Institute. She earned her medical degree from the Medical College of Wisconsin in 1994, and completed a residency in internal medicine in Milwaukee, Wisconsin, followed by a cardiovacular fellowship at the University of New Mexico Health Sciences Center in Albuquerque, New Mexico, where she also taught cardiovascular medicine. Her specialties include cardiovascular disease in women, treatment of heart disease among elderly patients, and congenital heart disease.

JOSEPH CHAMBERS, MD
Medical Director, Catheterization Laboratory

Dr. Chambers is a board-certified cardiologist with Oregon Cardiology who sees patients in Eugene and Florence. He is also the Medical Director of the Catheterization Laboratory at the Oregon Heart & Vascular Institute. He received his medical degree from Yale University in 1984 and completed his internship, residency, and a cardiovacular fellowship at the University of Washington. He specializes in coronary intervention, percutaneous valve interventions, pulmonary hypertension, and risk factor modification.

DENNIS GORY, MD, FACC
Medical Director, Comprehensive Valve Center

Dr. Gory is board-certified in interventional cardiology and practices with Oregon Cardiology. He is also the Medical Director of the Oregon Heart & Vascular Institute’s Comprehensive Valve Center. He received his medical degree from the University of Oregon in 1975. He completed his residency, internship and fellowship at St. Louis University School of Medicine. Dr. Gory specializes in interventional cardiology.

JOHN GUNDRY, MD, FACC
Medical Director, Echocardiography Services

Dr. Gundry is a board-certified cardiologist and vice president of Oregon Cardiology. He is also Medical Director of Echocardiography Services for the Oregon Heart & Vascular Institute. He received his medical degree from Oregon Health & Science University in 1992. He completed his residency and cardiology fellowship at the University of Washington in 1998. Before joining Oregon Cardiology in 2000, he practiced cardiology at the New Mexico Heart Institute. Dr. Gundry practices non-interventional cardiology and is board certified in internal medicine and cardiovascular diseases.

JAMES McCLELLAND, MD
Medical Director, Heart Rhythm Services

Dr. McClelland currently serves as the Medical Director of the Oregon Heart & Vascular Institute Arrhythmia Center. Dr. McClelland, who practices with Oregon Cardiology, is board certified in internal medicine, in cardiovascular diseases, and in clinical electrophysiology. He earned his medical degree from the University of Connecticut in 1983, served his residency at Temple University Hospital, and served a cardiology fellowship at Oregon Health & Science University in 1990, and a research fellowship at Duke University Medical Center, also in 1990. Dr. McClelland’s specialty is electrophysiology.

DAVID SAENGER, MD
Medical Director, Exercise Testing Laboratory

In addition to serving as Medical Director of the Exercise Testing Laboratory for the Oregon Heart & Vascular Institute, Dr. Saenger serves as secretary for Oregon Cardiology. Dr. Saenger is board certified in cardiovascular diseases and in nuclear cardiology. Dr. Saenger graduated magna cum laude with an undergraduate degree from Harvard University in 1989, and earned his medical degree from Stanford University School of Medicine. He completed his residency and internship at Mount Sinai Medical Center in New York City, and completed a fellowship in cardiovascular diseases at Mount Sinai Medical Center. His specialties are invasive cardiology, non-invasive imaging and preventative cardiology.

MATTHEW TROJAN, MD
Medical Director, Heart Failure Care

Dr. Trojan is Medical Director for Congestive Heart Failure at the Oregon Heart & Vascular Institute. He is board certified in internal medicine and in cardiovascular diseases, and board eligible for heart failure care. Dr. Trojan, who practices with Oregon Cardiology, received his medical degree from Emory University Medical School in 1999. He served his residency in internal medicine, and served as chief resident at the University of Minnesota. He completed a cardiology fellowship at the University of Virginia, including one year of subspecialty training in advanced heart failure care, including device therapy, transplantation, and high risk surgical therapy. He specializes in the care of heart failure patients.
JAY CHAPPELL, MD
Dr. Chappell is a board-certified cardiologist with Heart Associates in Springfield. He graduated from the University of California-San Francisco and completed an internal medicine residency at Virginia Mason Medical Center and a cardiology fellowship at Geisinger Medical Center in Danville, Pennsylvania.

STEPHEN COOK, MD, FACC
Dr. Cook is a board-certified cardiologist and president of Oregon Cardiology. Dr. Cook received his undergraduate degree from Stanford University in 1978. He received his medical degree from Yale University in 1983, and completed his internship and residency at the University of California-San Francisco School of Medicine in 1984. He completed a cardiology fellowship as well as an additional year of training in interventional cardiology at Cedars-Sinai Medical Center. Dr. Cook specializes in interventional cardiology.

ANDREW FRUTKIN, MD
Dr. Frutkin is a board-certified cardiologist with Oregon Cardiology. He received his undergraduate degree from Stanford University in 1991 and his medical degree from Stanford University Medical School in 1997. He completed his residency at the University of Washington, where he also completed a fellowship in cardiovascular medicine. Dr. Frutkin specializes in interventional cardiology and peripheral arterial disease.

JERRY HAWN, MD, FACC
Dr. Hawn is a board-certified cardiologist with Oregon Cardiology. Dr. Hawn received his medical degree from Georgetown University in 1967. He completed his internship at the University of Pittsburgh Medical School Hospital in 1968, and his residency and fellowship at the University of Oregon Medical School Hospital between 1968-1972. Dr. Hawn specializes in heart failure care and invasive and non-invasive diagnostic cardiology.

MICHAEK MENEN, MD
Dr. Menen, with Oregon Cardiology, is board certified in internal medicine, in cardiovascular disease and in nuclear medicine. He is an assistant clinical professor of medicine at Oregon Health & Science University. He received his medical degree from the Medical College of Wisconsin/Marquette School of Medicine in 1997. He completed his residency and internship in internal medicine and cardiology at the University of New Mexico Hospital in 2000, and completed his fellowship at the University of New Mexico in 2003. Dr. Menen’s specialties are invasive cardiology and non-invasive cardiology.

FRANCES MUNKENBECK, MD
Dr. Munkenbeck is board certified in internal medicine, in cardiovascular diseases and in clinical cardiac electrophysiology. She received her undergraduate degree from State University of New York at Stony Brook in 1971, her master’s degree from State University of New York at Stony Brook in 1972, and her medical degree from the University of Chicago in 1980. She served her internship and residency at the University of Chicago, and completed her fellowship at the University of Chicago in 1986. Dr. Munkenbeck, who practices with Oregon Cardiology, specializes in general cardiology, electrophysiology, cardiovascular fitness and disease in athletes, and arrhythmia device management.

RAMAKOTA REDDY, MD
Dr. Reddy is board certified in internal medicine, cardiovascular diseases and in clinical cardiac electrophysiology. He serves as treasurer for Oregon Cardiology. Dr. Reddy completed his undergraduate degree at the University of Iowa in 1986. He received his medical degree from the University of Pennsylvania in 1990. He served his residency and internship in internal medicine at Wilford Hall USAF Medical Center. He also served a fellowship in cardiology and electrophysiology at the University of Washington in 1997. Dr. Reddy’s specialty is electrophysiology.

WILLIAM ZEMAN, MD
Dr. Zeman is board certified in cardiovascular disease and in internal medicine and has an independent practice. He received his medical degree from the University of Nebraska College of Medicine.
**Cardiothoracic Surgeons**

**DAVID DUKE, MD**  
*Medical Director, Cardiothoracic Surgery*

Dr. Duke serves as Medical Director of Cardiothoracic Surgery at the Oregon Heart & Vascular Institute and is board certified in both surgery and cardiothoracic surgery. Dr. Duke received his medical degree at the Northwestern University Medical School in Chicago in 1982. He served his residency in general surgery at the University of Chicago Pritzker School of Medicine before serving as the administrative chief resident at the University of Illinois at Chicago College of Medicine for four years. He served his residency in cardiovascular surgery at the University of Wisconsin Hospital and Clinics at Madison, Wisconsin. He practiced in Portland before joining Cardiovascular Surgery Associates in 1992. Dr. Duke specializes in transmyocardial revascularization and in off-pump procedures.

**WARREN GLOVER, MD**

Dr. Glover is board certified in both surgery and cardiothoracic surgery. Dr. Glover received his medical degree from the University of Washington School of Medicine, served his residency at Cornell University Medical College, and served internships and residency at New York Hospital and Cornell University Medical College. He served fellowships at the National Institutes of Health and at the University of Virginia Hospitals.

**PAUL S. KOH, MD**

Dr. Koh is board certified in both cardiothoracic and thoracic surgery. Dr. Koh received his medical degree from Northwestern University Medical School in Chicago in 1994. He completed his internship and residency in general surgery at Oregon Health & Science University in Portland, then completed a fellowship in general thoracic surgery at Queen Elizabeth II Health Sciences Centre at Dalhousie University Medical School in Halifax, Nova Scotia. He also completed a fellowship in cardiovascular and thoracic surgery at the University of Minnesota. Dr. Koh’s specialties include minimally invasive thoracic surgery, thoracic oncology, adult cardiac surgery, ventricular assist devices, thoracic transplantation and general thoracic surgery.

**HOANG T. NGUYEN, MD**

Dr. Nguyen is board certified in surgery and in cardiothoracic surgery. Dr. Nguyen received her medical degree from the University of Oklahoma College of Medicine. She served her surgery internship at the University of Oklahoma, and served her surgical residency at the Marshfield Clinic/Saint Joseph’s Hospital. Dr. Nguyen served her fellowship at the University of New Mexico Health Sciences Center.

**Vascular Surgeons**

**CRAIG SEIDMAN, MD**  
*Medical Director, Vascular Surgery*

Dr. Seidman is the Medical Director for Vascular Surgery at the Oregon Heart & Vascular Institute. He is board certified in surgery and vascular surgery and practices with Northwest Surgical Specialists. He received his medical degree from the University of Pennsylvania, and completed his general surgery internship and residency at Massachusetts General Hospital in Boston. He completed a surgical trauma fellowship in Cape Town, South Africa and a vascular surgery fellowship at Boston University Medical Center. His original research in vascular surgery won awards at the American Venous Forum and the New England Society for Vascular Surgery. His specialties include trauma and vascular surgery.

**ROBERT SWANGARD, MD**  
*Medical Director, Vascular Laboratory*

Dr. Swangard, Medical Director of the Vascular Lab at Oregon Heart & Vascular Institute, is board certified in surgery. He also serves as a clinical associate professor at Oregon Health & Science University. Dr. Swangard earned his medical degree from the University of Freiburg in Germany, and served his residency at Tufts University in Boston and Springfield, Mass., where he became a teaching fellow in 1977. Dr. Swangard’s specialties include vascular hemodynamics, carotid artery disease, venous disorders and quality assurance.

**THOMAS BASCOM, MD**

Dr. Bascom, with Northwest Surgical Specialists, is board certified in surgery. He earned his medical degree from the University of Washington. Dr. Bascom’s specialties include colon, rectal, vascular and advanced laparoscopic surgery.

**DAVID DEHAAS, MD**

Dr. DeHaas is the medical director of surgery and trauma as well as the previous chief of staff at Sacred Heart Medical Center. He is board certified in surgery and practices with Northwest Surgical Specialists. Dr. DeHaas received his medical degree from Hahnemann University School of Medicine, served his surgical internship and surgical residency at the University of Wisconsin Hospital & Clinics, and completed a fellowship in surgery at the Gloucestershire Royal. Dr. DeHaas’s special interests include colorectal, vascular and oncologic surgery.

**JOHN DICKINSON, MD**

Dr. Dickinson is board certified in surgery. He is a former surgery division chief at Sacred Heart Hospital. In addition, he was cofounder of Medical and Surgical Specialists and he now practices with Northwest Surgical Specialists. His special interests include gastrointestinal, oncologic and vascular surgery.
Interventional Radiologists

**CHARLES McGLADE, MD**  
*Medical Director, Interventional Radiology*

Dr. McGlade is Medical Director of Radiology at the Oregon Heart & Vascular Institute. He is board certified in radiology. Dr. McGlade received his undergraduate degree from Johns Hopkins University in 1983, and his medical degree from Cornell University in 1983. He completed his radiology residency at University of California – Los Angeles, and then completed a subspecialty fellowship in angiography at UCLA.

**MATTHEW J. THOMSON, MD**  
*Medical Director, Interventional Radiology*

Dr. Matthew Thomson is a board-certified interventional radiologist and Medical Director of Radiology at the Oregon Heart & Vascular Institute. He received his medical degree in 2000 from the University of Utah, completed his internship at the Medical College of Wisconsin, and his residency at Loma Linda University Medical Center in California, where he served as chief resident. Dr. Thomson remained at Loma Linda for an additional year of fellowship training in vascular and interventional radiology. He joined the interventional team at Radiology Associates in 2006 and received a certificate of added qualification in interventional radiology in 2007.

**BERNARDO ISUANI, MD**

Dr. Isuani is a board-certified interventional radiologist with Radiology Associates. Dr. Isuani received his undergraduate degree from Johns Hopkins University in 1983, and his medical degree from Cornell University in 1983. He completed his radiology residency at Vanderbilt University Medical Center in Nashville, Tenn., where he served as Chief Resident. He then completed a subspecialty fellowship in Vascular and Interventional Radiology at the University of Utah in 2001 and earned a Certificate of Added Qualification (C.A.Q.) in interventional radiology in 2002.

Endovascular Neurosurgeon

**ERIK HAUCK, MD**

Dr. Erik Hauck earned his medical degree from Westfalian Wilhelm’s University in Germany and completed his residency in neurological surgery at the University of Texas, Galveston, the University of Texas, Houston, and MD Anderson Cancer Center. He completed fellowships in cerebrovascular neurosurgery at the University of Texas, Dallas, and in endovascular neurosurgery at State University of New York, Buffalo. He holds a Ph.D. for his micro-anatomical studies of the spine. Dr. Hauck came to Sacred Heart Medical Center from the Department of Neurosurgery at Millard Fillmore Gates Hospital in Buffalo. Dr. Hauck has also published extensively in leading neuroscience journals and has presented on his specialties at national and international conferences.
OHVI MEMBERS

Nuclear Medicine

MATHEWS FISH, MD
Medical Director, Nuclear Medicine Department
Mathews Fish, M.D., is Medical Director of Sacred Heart’s Nuclear Medicine Department. He received his medical degree from UC-San Francisco, where he also completed his internship in Internal Medicine. He did two residencies in pathology, at San Francisco General Hospital and UCMC, at SF Moffitt Hospital. Dr. Fish has been with Nuclear Medicine for more than 40 years. Under his leadership, Sacred Heart has served as a test site for many innovative Nuclear Medicine technologies. Dr. Fish was board certified in 1972, the year the American Board of Nuclear Medicine administered its first board certification, and is a life member of the American Board of Nuclear Medicine. He is also board certified in Nuclear Cardiology.

JOHN DOHRMAN, MD
John Dohrman, M.D., is a board certified diagnostic radiologist with Radiology Associates. He has an undergraduate degree in anthropology from the University of Iowa. He received his medical degree in 2002 from the University of Iowa Medical School and was inducted into the Alpha Omega Alpha Honor Society. Dr. Dohrman was a transitional year resident at Virginia Mason Medical Center in Seattle from 2002 to 2003. He completed a diagnostic radiology residency at Indiana University Medical Center in 2007 and a fellowship in Nuclear Medicine at Indiana University Medical Center in 2008.

Academic Members

JOHN HALLIWILL, PhD
Dr. Halliwill received his undergraduate degree from Ohio State University in 1991. He earned his doctorate in physiology from the Medical College of Virginia. He served a post-doctoral fellowship at the Mayo Clinic and Foundation. In 2002, Dr. Halliwill joined the University of Oregon Department of Human Physiology and serves as Co-Director of the Exercise and Environmental Physiology Labs. His research focuses on cardiovascular and respiratory response to exercise and stress.

CHRISTOPHER MINSON, PhD
Dr. Minson received his undergraduate degree from the University of Arizona in 1989. He earned his master’s degree from San Diego State University, and his doctorate in exercise study at Pennsylvania State University. He served a post-doctoral fellowship at the Mayo Clinic in the Department of Anesthesiology. In 2000, Dr. Minson joined the Department of Human Physiology at the University of Oregon, and he now serves as Co-Director of the Exercise and Environmental Physiology Labs. His research focuses on neural and vascular interactions in the skin during heat stress.

At the Oregon Heart & Vascular Institute, teamwork is essential in determining the best prevention, diagnostic, and treatment options for each patient.
HDE: JOMED JOSTENT Coronary Stent Graft. Summary: This device is indicated for use in the treatment of free perforations, defined as free contrast extravasation into the pericardium, in native coronary vessels or saphenous vein bypass grafts smaller than 2.75 mm in diameter. Investigators: Stephen Cook, MD; Dennis Gory, MD; Jerold Hawn, MD; Samuel Lau, MD.

SPRIT III Clinical Trial: A Clinical Evaluation of the XIENCE V Everolimus Eluting Coronary Stent System in the Treatment of Subjects with de novo Native Coronary Artery Lesions. Summary: To determine the safety and efficacy of the XIENCE V Everolimus Eluting Coronary Stent System for the treatment of subjects with a maximum of two de novo native coronary artery lesions. Investigators: Joseph Chambers, MD; Stephen Cook, MD; Dennis Gory, MD; Jerold Hawn, MD; Samuel Lau, MD; Richard Padgett, MD.

Thoracoscopically-Assisted Epicardial Bilateral Pulmonary Vein Isolation Using the Atricure Bipolar System and Exclusion of the Left Atrial Appendage for the Treatment of Atrial Fibrillation. Summary: To determine the safety of this operation. To gather data to develop future research trials designed to evaluate how effective this treatment is for atrial fibrillation (AF). Investigators: James McClelland, MD; David Duke, MD.

Asymptomatic Cerebrovascular Accident and Left Atrial Function Following Minimally Invasive Surgery for Atrial Fibrillation Research Protocol. Summary: To identify any neurological or psychological changes and to determine incidence of asymptomatic cerebrovascular accident following minimally invasive surgery for AF, and to evaluate left atrial size and function before and after minimally invasive surgery for AF. Investigators: James McClelland, MD; David Duke, MD; Raymond Englander, MD; Jon Ekstrom, MD.

A 104-Week, Randomized, Double-Blind, Parallel Group, Multi-Center Phase IIIb Study Comparing the Effects of Treatment with Rosuvastatin 40 mg or Atorvastatin 80 mg on Atherosclerotic Disease Burden as Measured by Intravascular Ultrasound in Patients with Coronary Artery Disease: the SATURN Trial. Summary: To compare the effects of rosuvastatin 40 mg with atorvastatin 80 mg on the percent atheroma volume (PAV) of a coronary artery as measured by intravascular ultrasound imaging following 104 weeks of treatment in patients with coronary artery disease. Investigators: Stephen Cook, MD; Joseph Chambers, MD; Samuel Lau, MD; Richard Padgett, MD; Dennis Gory, MD; Andrew Frutkin, MD; Jerold Hawn, MD.

XIENCE V Everolimus Eluting Coronary Stent System (EECSS) USA Post-Approval Study. Summary: To evaluate clinical outcomes in a cohort of real-world patients receiving the XIENCE V Everolimus Eluting Coronary Stent System (EECSS) during commercial use by various physicians with a range of coronary stenting experience; evaluate patient compliance with adjunctive antiplatelet therapy and major bleeding complications; determine clinical device and procedural success during commercial use; and evaluate patient health status (symptoms, physical function, and quality of life) using the Seattle Angina Questionnaire. Investigators: Richard Padgett, MD; Joseph Chambers, MD; Dennis Gory, MD; Samuel Lau, MD; Stephen Cook, MD.

The Vest Prevention of Early Sudden Death Trial (VEST) PREDiction of ICD Therapies Study (PREDICTS). Summary: To test the hypothesis that a non-invasive wearable automatic defibrillator vest will reduce overall mortality in the first 60 days following an MI in participants with left ventricular dysfunction. Investigators: Ramakota Reddy, MD; Matthew R. Trojan, MD; Samuel Lau, MD; Joseph Chambers, MD; Richard Padgett, MD; Stephen Cook, MD; Jerold Hawn, MD; Dennis Gory, MD; Jay Chappell, MD; James McClelland, MD; Michael Menen, MD; John Gundry, MD; Frances Munkenbeck, MD; Andrew Frutkin, MD.

Compassionate Use of Temporary Patient Activated Rx (TPARx) Software. Summary: This software system allows delivery of atrial ATP therapy for the treatment of supraventricular tachycardias without regard to a patient’s AV conduction status. Investigator: James McClelland, MD.

SENTIS Stroke Trial Protocol: Safety and Efficacy of NeuroFlo Technology in Ischemic Stroke. Summary: To demonstrate the safety and efficacy of the NeuroFlo treatment plus medical management relative to medical management alone in improving neurological outcome in ischemic stroke patients. Investigators: Raymond Englander, MD; Bernard Issuani, MD; Charles McGlade, MD; Matthew Thomson, MD; John Tucker, MD; L. Paul Wilson, MD.

Validation of a Low-Dose One-Day Tc99m Protocol with a High-Efficiency Cardiac Dedicated Gamma Camera for Detection of CAD (SD-DSPECT002). Summary: To compare an ultra low dose D-SPECT protocol to the standard D-SPECT protocol in order to make the diagnosis of coronary artery disease. The study is designed to produce evidence that a lower dose of imaging agent may be used with the D-SPECT scanner to provide quality imaging at a lower amount of radioactive exposure. Investigators: Richard Padgett, MD; John Gundry, MD; David Saenger, MD.

Surgery After Previous Failed Catheter Ablation (SAVED). Summary: To determine the percent success of surgical ablation for AF at 6 and 12 months both on and off of antiarrhythmic drugs following a failed catheter based ablation for AF, and to record and evaluate all complications associated with the surgical procedure. Investigators: James McClelland, MD; David Duke, MD.
CYPRESS: A Prospective, Randomized, Multi-Center, Double-Blind Trial to Assess the Effectiveness and Safety of Different Durations of Dual Anti-Platelet Therapy (DAPT) in Subjects Undergoing Percutaneous Coronary Intervention with the CYCER SIROLIMUS-EUISING Coronary Stent (CYCER Stent).
Summary: To collect data in patients with coronary artery disease who were treated with a CYCER stent. Data gathered from this study will be combined with other patient data that has been collected in studies utilizing different drug eluting stents to determine how long patients should remain on blood thinning medicines. Aspirin plus one of the two FDA-approved thienopyridine medications (clopidogrel or prasugrel) is commonly called “dual anti-platelet therapy”. Investigators: Stephen Cook, MD; Richard Padgett, MD; Dennis Gory, MD; Joseph Chambers, MD; Andrew Frutkin, MD.

The ENTERPRISE Vascular Reconstruction Device and Delivery System - Humanitarian Use Device. Summary: To provide a treatment option for patients with intracranial aneurysms. Investigator: Erik Hauck, MD.

The Neuroform Microdelivery Stent System - Humanitarian Use Device. Summary: To provide a treatment option for patients that cannot be treated with open brain surgery. Investigator: Erik Hauck, MD.

The Wingspan Stent System and Gateway PTA Balloon Catheter - Humanitarian Use Device. Summary: To provide a treatment option for patients with intracranial atherosclerotic disease refractory to medical therapy. Investigator: Erik Hauck, MD.

CRYSTAL AF (CRYptogenic Stroke And underlying AF) Study.
Summary: To compare the continuous monitoring by the Reveal XT Insertable Cardiac Monitor to standard of care optimal medical treatment in subjects after diagnosis of cryptogenic stroke. This clinical trial will assess the incidence of atrial fibrillation in subject with a recent cryptogenic stroke or transient ischemic attack, who are at an increased risk of cardiac arrhythmia and to demonstrate the benefit of timely AF detection for patient care. Investigators: Ramakota Reddy, MD; Raymond Englander, MD.

Compassionate Use Device - EnRhythm Temporary Patient Activated Therapy (TPARx).
Summary: The purpose of the TPARx Software is to inject the TPARx application into the implanted device such that after receipt of a command from a model 2696 INCHECK Patient Assistant, the device will be able to provide atrial ATP therapies for treatment of rhythms with 1:1 conduction. Investigator: James McClelland, MD.