

CARDIAC | monitor

FOR OUR PHYSICIANS

Sacramento, CA

MERCY GENERAL HOSPITAL: FRONTIERS IN CARDIAC IMAGING

The Mercy Heart & Vascular Institute ranks among the top hospitals in California when it comes to cardiovascular care. The cardiac catheterization lab is one of the busiest in the nation with a roster of interventional cardiologists with the highest qualifications. The cardiac operating room boasts the most skilled surgeons performing increasingly complex cases. Now, Mercy has completed its “triple crown” in cardiovascular care with the acquisition of the most modern technology in cardiac imaging.

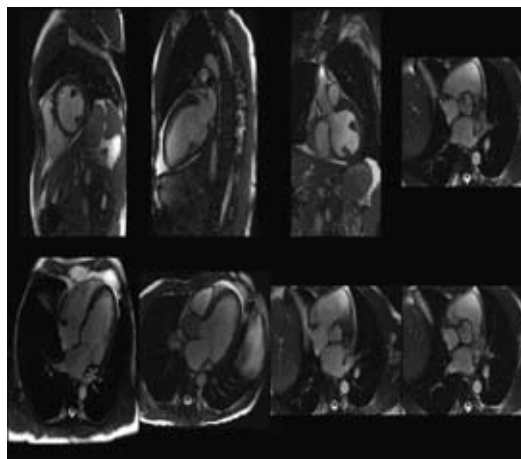
According to Howard Dinh, MD, FACC, cardiologist and expert on cardiac computed tomography (CT), magnetic resonance imaging (MRI), and nuclear imaging, “We now have the ability to look at the heart and vasculature in an unprecedented way. We can determine if a patient has blocked arteries, assess their cardiac risk, and visualize their cardiac valves and muscle with precision.” This is all accomplished by a non-invasive scan that takes 10-45 minutes.

Multi-slice Cardiac Computed Tomography

Mercy’s 64-slice, state-of-the-art CT scanner performs both calcium scoring and coronary angiography. A coronary calcium score is calculated from the calcium in a patient’s coronary tree. The recent MESA Trial proved that this score is predictive of a patient’s cardiovascular risk (*N Engl J Med*, 358;1336-45, 2008). It can help determine whether a seemingly low or intermediate risk patient would need more aggressive pharmacologic therapy. The scan can identify a blockage or plaque in the coronary artery, helping physicians determine if the patient needs an angiogram and coronary stent.



A. CT 3D RENDERING OF LEFT CORONARY ARTERY.
B. TWO-D IMAGING OF RIGHT CORONARY ARTERY BLOCKAGE



MRI OF THE HEART IN A PATIENT WITH SEVERE HEART FAILURE.

Magnetic Resonance Imaging

MRI uses magnetic energy to generate differential natural contrast between tissue, allowing physicians to see a 3D view of the heart and its valves. MRI can also show cardiac function, valvular function, and tissue characterization. It has become the gold standard in cardiac imaging, and is used in all clinical trials. Mercy uses a state-of-the-art 1.5 Tesla high-definition GE MRI machine. This machine has proved invaluable in determining transplant need, staging valvular disease, assessing congenital complex anatomy and for care of heart failure and cardiomyopathy.

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CARDIAC MONITOR—

a resource for you

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Mercy

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HEART & VASCULAR INSTITUTE**

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Doris Frazier, RN, MS, Vice President

FRONTIERS IN CARDIAC IMAGING

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Howard Dinh, M.D., F.A.C.C.,
Mercy Heart & Vascular Institute
cardiologist and cardiac imaging
specialist

**Most Advanced
MRI Technology**

Mercy General Hospital now offers a new diagnostic tool, the GE Signa HDxt 1.5T MRI, to help solve even your most challenging imaging needs. The new MRI provides highly detailed, high-

resolution images you need for a confident diagnosis. Our new MRI system provides:

Advanced Cardiac imaging to assess:

- Function
- Viability
- Ischemia
- Constrictive Pericarditis
- ARVD

- Anomalous Coronaries
- Cardiac Masses

Advanced Comprehensive Imaging of the:

- Brain – including functional MRI (fMRI), white matter tract assessment and brain perfusion
- Vasculature – with high resolution images and increased coverage
- Musculoskeletal – with millimeter resolution for accurate cartilage and ligament assessment
- Abdomen – with rapid image acquisition for dynamic assessment of intra-abdominal organs

For more information about Mercy General Hospital Imaging capabilities call 916.453.4414. ♥

References

MESA Trial *N Engl J Med*, 358;1336-45, 2008
Miller et al. *N Engl J Med* 359:2324-36, 2008
Dinh, H. et al. *Radiology*, 248;2, 2008

MGH EARNS CHEST PAIN ACCREDITATION

In July 2009, Mercy General Hospital became the first and only Accredited Chest Pain Center with PCI in the Sacramento region. “This important distinction recognizes our rapid and consistent, systematic approach to treating patients that arrive to our Emergency Department with symptoms of chest pain or heart attack”, says Doris Frazier, RN, MS, Vice President of Cardiovascular Services.

During a heart attack, time to treatment is the key to survival and reducing heart damage. “From EMS, through the Emergency Department assessment and diagnosis, to 24/7 cath lab access to an emergency angioplasty to open the blocked arteries, experienced physicians and staff are focused on saving those seconds that count,” says Frazier. At Mercy General

Hospital, door to balloon time to open blocked arteries averages 63 minutes, a full 27 minutes less than the national benchmark of 90-minutes. ♥



**Join Mercy at one of our
exclusive National Heart
Month Events**

- Feb. 18 Arden Hills Country Club
- Feb. 18 Woodland Community Center
- Feb. 22 Maidu Community Center
- Mar. 6 Serrano Country Club

For more information, visit
www.mercyheartnacramento.org.

Vascular & Cardiac Screenings

Vertical Auto Profile

Mercy physicians are using a new tool in assessing patients' risk factors for heart disease. The Vertical Auto Profile, or VAP, test provides a unique glimpse into a patient's heart health. "The VAP can give you insight that you cannot get from a standard lipid profile," explains David Magorien, MD, MGH Medical Director, Cardiac Rehabilitation and Non-Invasive Cardiology Services. "When used in conjunction with a C-reactive protein test, the VAP gives you a very clear idea of your patient's risk for coronary artery disease, stroke and heart disease."

The VAP assesses levels of all the blood lipids measured in a standard lipid profile,

plus subclasses of lipids that are known or emerging risk factors for cardiovascular disease, such as lipoprotein(a) and LDL size pattern. "LDL size pattern is important because small, dense LDL, known as Pattern B, triples the likelihood of developing coronary plaque and suffering a heart attack," says Dr. Magorien. "When it comes to cholesterol, large and fluffy is better. The VAP test shows you which type your patient has." ♥



David Magorien, MD, MGH Medical Director, Cardiac Rehabilitation and Non-Invasive Cardiology Services

Below is a chart to help you analyze and treat your patient's VAP test results. The VAP is offered as part of the Cardiac HealthScreen (see sidebar).

| Diagnosis | Therapeutic Lifestyle Change | Prescription Drugs |
|---------------------------------|---|--|
| Elevated LDL-R | Low fat diet, exercise | Statin Drugs |
| Elevated Lp(a) | No effect | Niacin, Niaspan RX |
| Elevated IDL | Low carb diet, exercise | Statin+Niacin, Fibrate |
| Small dense LDL/ Pattern B, A/B | low carb diet, reduce sugar, exercise | Omega 3-FA, Niacin, Fibrate, Statin |
| Remnant Lipoproteins | Reduce carbohydrates | Statin+Niacin, Statin+Fibrate, Omega 3 |
| Low HDL2 | Aerobic exercise | Omega 3-FA, Niacin, Fibrate |
| VLDL & Elevated triglycerides | Low carb diet, reduce sugar, exercise | Omega 3-FA, Statin, Fibrate, Niacin |
| Metabolic Syndrome | No sugar, 35% calories as fat, exercise | Omega 3-FA, Niacin |

Take advantage of these noninvasive and painless screenings designed to help your patients learn about and control their risk factors. Each screening includes a nurse consultation of risk factors and a physician review of screening and lab results. The report of findings is sent to the patient's PCP.

Vascular HealthScreen

\$95

This 40-minute screening checks for blockages in the arteries:

- Stroke/carotid artery ultrasound to detect potential stroke-causing plaque
- Ankle-brachial index to detect peripheral arterial disease
- Abdominal aortic ultrasound to detect an aneurysm

Cardiac HealthScreen

\$95

This 60-minute screening uses the Heart Study Risk Factor Assessment to identify 10-year risk for cardiac disease.

- Comprehensive risk factor analysis including blood pressure, body mass index, and waist circumference
- Specialized cholesterol (VAP) and blood glucose lab tests
- 12-Lead ECG to measure electrical functions in the heart

Receive both Vascular and Cardiac HealthScreen for only \$149.

Call 916.733.6245 to make an appointment or refer your patients.



Howard Dinh, MD is joined by (from left) Kenny Charn, MD, Christine Sullivan, NP and Doris Frazier, VP, Cardiovascular Services at a Cardiology Update held at Taste Restaurant in Plymouth on Oct. 6, 2009. A variety of Mercy Heart & Vascular Institute cardiac physicians provide clinical updates in the Sacramento Valley region.



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MERCY GENERAL HOSPITAL
MERCY HOSPITAL OF FOLSOM
MERCY SAN JUAN MEDICAL CENTER
METHODIST HOSPITAL OF SACRAMENTO
SIERRA NEVADA MEMORIAL HOSPITAL
WOODLAND HEALTHCARE



The carefully designed interior incorporates soothing colors, textures and ample natural light to promote a tranquil healing environment.

- A central monitoring system
 - New wireless IV pumps with built-in drug libraries to enhance patient safety
 - A pneumatic tube system to increase the speed of receiving medications from the pharmacy
 - Two negative air flow rooms to prevent cross-contamination
 - A dedicated room for physicians to complete computer charting
- All of the rooms in the new six-story tower are private, with 30 beds dedicated to cardiac telemetry on the fourth floor. The unit incorporates the latest innovations to make delivering quality care easier:
- A central monitoring system
 - New wireless IV pumps with built-in drug libraries to enhance patient safety
 - A pneumatic tube system to increase the speed of receiving medications from the pharmacy
 - Two negative air flow rooms to prevent cross-contamination
 - A dedicated room for physicians to complete computer charting
- Mercy San Juan Medical Center's new patient tower opened December 2009, providing the community with 110 much needed additional beds for a total of 370 acute care beds.

NEW PATIENT TOWER ENHANCES CARDIAC CARE AT MERCY SAN JUAN

SAVE THE DATE



Saturday, October 23, 2010
MHVI's 20th Annual Symposium
Cardiology & Electrophysiology 2010
Hyatt Regency, Sacramento

- Heart Smart and CHAMP®: 916.564.2880
- Cardiac Conditioning: 916.453.4521
- Mercy General Hospital 916.537.5296
- Mercy San Juan Medical Center
- Pulmonary Rehabilitation: 916.453.4268
- Mercy General Hospital
- Smoking Cessation 916.453.4927
- ICD Support Group 916.733.6966
- Vascular HealthScreen 916.733.6245
- Cardiac HealthScreen 916.733.6245

The following Mercy programs are available for physicians to refer their patients for help managing heart disease.

Referral Resources