

CHANGING INDICATIONS IN ELECTROPHYSIOLOGY

By Pdraig G. O'Neill, MD, Medical Director for Mercy Electrophysiology

Recent clinical trials may reshape how physicians view the indications for implantable cardiac devices. Cardiologists at Mercy participated in a large multi-center clinical trial which demonstrated that patients with more mild cardiac symptoms may benefit from implantable Cardiac Resynchronization Therapy (CRT) with ICD. They are also reevaluating which patients may benefit from an Implantable Cardioverter Defibrillator (ICD).

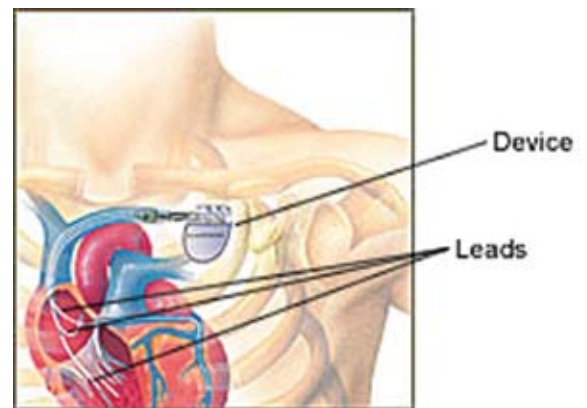
In approximately 30% of patients with heart failure, an abnormality in the heart's electrical conducting system causes the two ventricles to beat out of sync, instead of beating simultaneously. CRT is a relatively new form of therapy for congestive heart failure that uses a specialized pacemaker to re-coordinate the action of the right and left ventricles. Previous studies showed CRT could improve the condition of many patients with moderate to severe heart failure. A new study which Mercy General participated in and which was published in the New England Journal

of Medicine (NEJM Oct. 1, 2009) analyzed data from 1,820 patients with cardiomyopathy, left or right bundle branch block, an ejection fraction of 30% or less (see page 2 for an explanation of ejection fraction) and class 1 or 2 heart failure symptoms. The study found a 41% reduction in the risk of heart failure events in patients who received CRT and concluded that CRT combined with ICD decreased the risk of heart failure events in relatively asymptomatic patients.

Additionally, the CRT device allows for remote monitoring – of blood pressure, daily weights and clinical symptoms – remotely through the Internet. That information is then communicated electronically to their physician, who can make interventions that will potentially preempt hospitalizations.

Another area where cardiologists have seen a shift in device usage is with Implantable Cardioverter Defibrillators (ICDs), commonly known as pacemakers. A series of studies confirmed that ICDs significantly reduce the risk of sudden cardiac death due to arrhythmias, compared to medication alone. Additionally,

Jonathan Hemphill, MD, Medical Director for Mercy San Juan Medical Center Cardiac Cath Lab, says research data has shown that implanting devices



CRT devices include an implanted ICD and three leads.

too soon after myocardial infarction (commonly known as heart attack) can be harmful. "It is reasonable to delay implant because the heart muscle may improve with healing and the ICD may no longer be required," explains Dr. Hemphill. "In recent years, we have become more thoughtful of who is an optimal candidate for a defibrillator."

Clinical trials are constantly reshaping medicine – and that is evident at Mercy. It is this attention to the very latest in research findings that has allowed Mercy physicians to help an ever-changing demographic of patients experience the benefits of implantable devices and therapies. ♥

Have questions about
exercising with an
implanted cardiac device?
See page 2 for answers!

IMPLANTABLE CARDIOVERTER DEFIBRILLATOR: IS IT SAFE TO EXERCISE?

By Kenneth Rogaski, MS, Exercise Physiologist

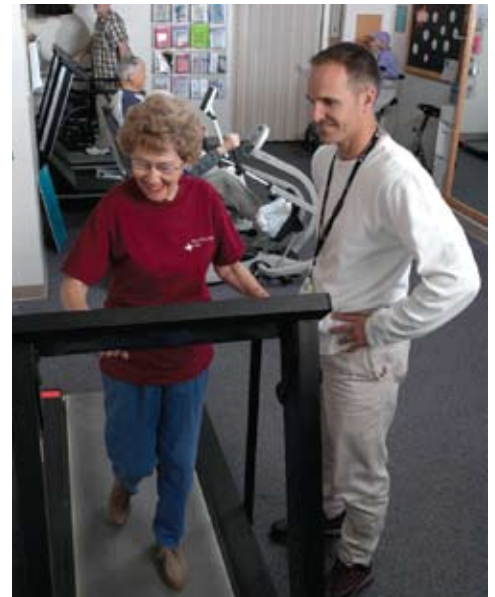
Patients with an Implantable Cardioverter Defibrillator (ICD) are capable of maintaining a healthy, active, and independent life-style. However, they often wonder if it is safe to exercise with their implanted device.

The simple answer is yes, depending on the patient's particular type of arrhythmia and the type of exercise. Following a brief recovery period you may begin safely exercising, after consulting with your physician. The risk of arrhythmia is no greater during moderate intensity exercise than at rest. Here are some suggestions to keep in mind when exercising with an ICD:

- Consult your physician about the settings of your ICD

- As a general rule, you should ask yourself "what would happen if my ICD goes off"?
- Exercise with someone who knows you and your condition
- Have your ICD card with you at all times
- Contact sports should be avoided
- Your exercise routine should be comprised of aerobic exercise, muscular endurance, and stretching, including a warm up and cool down
- Physical activity and exercise should progress slowly and be monitored using either heart rate or perceived effort
- Exercise 30 minutes (or multiple sessions of 10-15 minutes) most days of the week

Remember, always consult your physician before beginning a new exercise program. ♥



ANOTHER IMPORTANT NUMBER TO KNOW: YOUR EJECTION FRACTION

You know that your cholesterol and blood pressure are important numbers to know... But did you know there is another number that can also indicate your risk for sudden cardiac arrest?

It's called your ejection fraction (EF), which is a key indicator of your heart's health. EF is the percentage of blood that is pumped from your heart in each beat. People with a normal, healthy heart

typically have an EF of between 50-75% or more, meaning that more than half of the blood filling their heart's left ventricle is pumped out to the body. An EF of 36-49% is considered below normal and EF of 35% or below is low, meaning your heart is not pumping efficiently. Recent research shows that patients who have a low ejection fraction are at higher risk for dangerously fast heart rhythms and sudden cardiac arrest, a leading cause of

death in the United States.

The best means to determine your EF is an echocardiogram. A nuclear imaging study, known as a thallium scan, can also be used. These tests use ultrasound or X-ray imaging to painlessly examine your heart and its function. If your EF is low, ask your physician about consulting with an electrophysiologist. ♥

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CARDIACMONITOR

SALT VS. SODIUM: WHAT YOU NEED TO KNOW

By Marilyn Gee, RD, Mercy Cardiac Conditioning Program

Do you consider yourself average? If so, you consume enough sodium per day to equal about 1½ teaspoons of salt. Also known as sodium chloride (NaCl), salt is 40% sodium and 60% chloride by weight.

Sodium intake is a health concern, and salt is the primary source of sodium in our diets. Sodium is a mineral that occurs naturally in foods, but up to 75% of our sodium intake comes from salt that has been added by food manufacturers or by the restaurant industry.

All ingredients in packaged foods must be listed on the “Nutrition Facts” food label. Sodium is listed in milligrams (mg) per serving and as % Daily Value (DV). The sodium content includes

natural sodium and sodium added during processing. Check the “list of ingredients” for sources of sodium that

Up to 75% of our sodium intake comes from salt that has been added to food.

may have been added, such as salt, monosodium glutamate, sodium citrate, garlic salt, etc.

The current recommended daily intake of sodium is less than 2,300 mg. A lower daily intake of 1,500 mg Na is the target for most adults. When it comes to sodium, it's healthy to be below average!



PATIENT GIVES MERCY HIGH MARKS

Recently a Mercy patient wrote a letter to Mercy Medical Group (MMG), expressing his gratitude for the care he received after going to the MMG Urgent Care on Q Street with chest pains and being referred to the cardiac team at Mercy General:

“Dr. Kathleen Quadro gave me an EKG and strongly suggested I check into Mercy General for further testing. She even made the phone call to facilitate my check-in. I was admitted to the hospital, received an angiogram and placement of four stents... I believe that Dr. Quadro's insight and intervention saved my life.”

– Timothy K. Johnston ♥

MERCY FOUNDATION: GRATEFUL PATIENTS & FAMILIES

Gratitude is a powerful expression of the heart. Mercy Foundation's Grateful Patients & Families Program enables patients to express appreciation and recognize their caregivers by making a gift to Mercy Foundation. Their support not only helps Mercy continue to provide high-quality care to the Sacramento region, but it also strengthens the Sisters of Mercy's ministries that benefit the less fortunate in our community.

Grateful patients and their loved ones may designate their gift to a specific Sisters of Mercy ministry or the Mercy facility where they received care. One-hundred percent of contributions go directly to the area the donor chooses. For more information about our Grateful Patients & Families Program, please contact Mercy Foundation at 916.851.2700. ♥



SPANOS CENTER WORK CONTINUES

Construction on the \$150 million Alex G. Spanos Heart & Vascular Center, located on the interior of the Mercy General Hospital campus, is under way. The new facility is scheduled for opening mid-2012 and will house state-of-the-art technology, including new cardiac operating rooms, hybrid operating rooms and a biplane angiography suite.

Many meetings with the neighbors, the City of Sacramento and the community, resulted in a collaborative design for the center that blends the established East Sacramento community with the new construction on the hospital campus. ♥

MERCY RECEIVES CARDIAC RECOGNITION

Both Mercy General Hospital and Mercy San Juan Medical Center are now designated Cardiovascular STEMI (ST Elevated Myocardial Infarction) Receiving Centers (SRC) by the Sierra-Sacramento Valley (S-SV) EMS Agency. A SRC is the preferred destination for patients who access 911 suffering a heart attack, as determined by responding paramedics. The S-SV designated the Mercy centers based on the facilities' 24/7 interventional, emergency cardiac catheterization capabilities and quality outcomes.

In addition, Mercy General Hospital is the first and only Accredited Chest Pain Center (with PCI) in the Sacramento region. This distinction recognizes the hospital's rapid and consistent, systematic approach to treating chest pain or heart attack patients arriving in the ED. During a heart attack, time to treatment is the key to survival and reducing heart damage. ♥



Classes and Screenings

HEALTHY HEART SERIES

Mercy General Hospital

Free

First Thursday of every month

1:30 – 3:00 p.m.

Topics include: Diabetes nutrition and low-fat cardiac diet

Call 916.453.4521 for dates and location

Mercy San Juan Medical Center

Free

First Tuesday of every month

11:30 a.m. – 1:00 p.m.

Topics include: Emotions and heart disease, diabetes management, diabetes nutrition, low-fat cardiac diet, managing your response to stress, your heart and cardiac procedures, your medicine cabinet, exercise guidelines, cardiovascular risk factors

Call 916.537.5296 for dates and location

CHOLESTEROL SCREENINGS

\$25 for lipid panel

\$30 for lipid plus glucose

First Thursday of every month.

(Twelve-hour fasting is required.)

Mercy General Hospital

916.453.4521

Mercy San Juan Medical Center

916.537.5296

VASCULAR HEALTHSCREEN

(Screenings for peripheral artery disease)

\$45 per screening

\$95 for all three

Screenings available: Stroke/carotid artery ultrasound, ankle-brachial index and abdominal aortic ultrasound.

(Cholesterol testing also available.)

Mercy General Hospital

Mercy San Juan Medical Center

Woodland Healthcare

Call 916.733.6245 for an appointment

CARDIAC HEALTHSCREEN

Cost: \$95

Screenings available:

Comprehensive risk factor analysis, Vertical Auto Profile (VAP) cholesterol/blood glucose lab tests and 12 lead EKG

Mercy General Hospital

Mercy San Juan Medical Center

Call 916.733.6245 for an appointment

2010 HEART WALK

A team of Mercy walkers will be participating in the American Heart Association Annual Heart Walk on Saturday, Sept. 18, at William Land Park to support heart disease treatment and research. All current and past Mercy patients are invited to participate under the Mercy banner. Contact Christia Hayes at 916.453.4521 for more information. ♥

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