John Muir Cardiac Rhythm Center

The John Muir Cardiac Rhythm Center, located at the John Muir Medical Center – Walnut Creek has been carefully developed to diagnose and treat heart rhythm disorders or arrhythmias.

The Cardiac Rhythm Center has brought together some of the Bay Area's finest cardiac electrophysiologists and provided them with state-of-the-art cardiac electrophysiology equipment. Virtually everything needed to provide the best outcomes for patients with cardiac rhythm diseases is now available in one place. This includes the capability to perform the most technologically advanced computer-assisted diagnostic electrophysiology studies and catheter ablation procedures (inactivation of a abnormal tissue that is responsible for some rhythm disturbances), as well as the expert implantation of pacemakers, defibrillators and cardiac resynchronization devices. Many of these procedures, previously performed only at leading academic medical centers, are offered right here.

Focusing our arrhythmia treatment efforts in the Cardiac Rhythm Center has allowed our staff to work collaboratively as a team, bringing the very best technicians, nurses, industry specialists, and physicians together in a state-of-the-art facility. We recognize that the best way to treat heart rhythm disorders is by creating an environment designed and equipped solely for this purpose.

Treating Disorders of the Heart's Electrical System

Normally, electricity flows throughout the heart in a regular, measured pattern. These electrical impulses are the basis for heart muscle contractions. Problems may develop anywhere along the electrical pathways, disrupting the regular beating of the heart and causing an abnormal heart rhythm, or arrhythmia. Left untreated, arrhythmias can decrease one's quality of life, and sometimes lead to serious consequences such as heart failure or sudden cardiac arrest, two of the leading causes of death in the U.S.

Determining the most appropriate and effective treatment for the various forms of cardiac arrhythmia is based upon a comprehensive medical examination and use of special tests that help cardiac electrophysiologists (cardiologists with advanced training in the diagnosis and treatment of arrhythmias) properly identify the rhythm problem. Treatment options vary according to the specific arrhythmia, and the cardiac electrophysiologist is able to match the best treatment to the individual needs of the patient.

Our Team of Experts

The Cardiac Rhythm Center brings together a group of leading cardiac electrophysiologists and selected cardiovascular surgeons. The electrophysiologists lead a team of specially trained health care professionals. Our Cardiac Rhythm Center team includes a clinical nurse specialist, cardiac anesthesiologists, registered nurses and technicians with special training in electrophysiology procedures.

State-of-the-art Facility

The Cardiac Rhythm Center features a newly constructed electrophysiology suite, designed to include the most sophisticated equipment and computer software currently available for diagnosing and treating heart rhythm disorders. This equipment enhances our diagnostic capabilities, reduces procedure times and minimizes radiation exposure. Specialized computer-assisted mapping sytems facilitate the rapid analysis of many complex rhythm disorders, further improving patient outcomes.

Features of our Cardiac Rhythm Center

- A computerized monitoring system that provides exceptional intracardiac electrocardiographic (ECG) recordings during electrophysiology studies and ablations. The system's advanced analysis tools help streamline procedures and improve analysis and case documentation, reducing procedure times and enhancing diagnostic capabilities.

- Two separate computer-assisted 3-D mapping systems which are used to rapidly locate and guide treatment of the most complex arrhythmias. Each system has unique capabilities that allow the electrophysiologists to select the best technology to diagnose and treat arrhythmias with greater accuracy and precision.

- Intracardiac Echocardiography that uses harmless ultrasound technology to visualize the anatomy and physiology of the heart and measure blood flow from within the heart chambers. Images are transmitted via a steerable, ultrasound tipped catheter that is easily positioned within the heart during certain procedures, such as ablation procedures for atrial fibrillation.

Full Range of Treatment Options for Arrhythmias

Several treatment options for arrhythmias are available:

Radiofrequency (heat) Ablation is commonly used. It is a non-surgical procedure using small catheters in the heart to cauterize minute portions of the heart tissue that may be causing the arrhythmia.

Cooled-tip Radiofrequency Ablation allows the use of higher power to produce larger and deeper lesions when needed for the elimination of certain arrhythmias.

Cryoablation or freezing technology is a new ablation option that delivers extreme cold, rather than heat, to treat abnormal tissue. Cryoablation can further enhance the safety of ablation of some higher risk arrhythmias.

Surgical Treatment of Arrhythmias

Surgical treatment of atrial fibrillation, including minimally invasive surgical approaches, are also available. These surgical treatments are performed on our Concord Campus.

Quality Care, Technological Advancements

As part of our comprehensive Cardiovascular Services program, the Cardiac Rhythm Center further demonstrates John Muir Health's commitment to providing quality care, the latest in technological advancements and comfort to our patients.

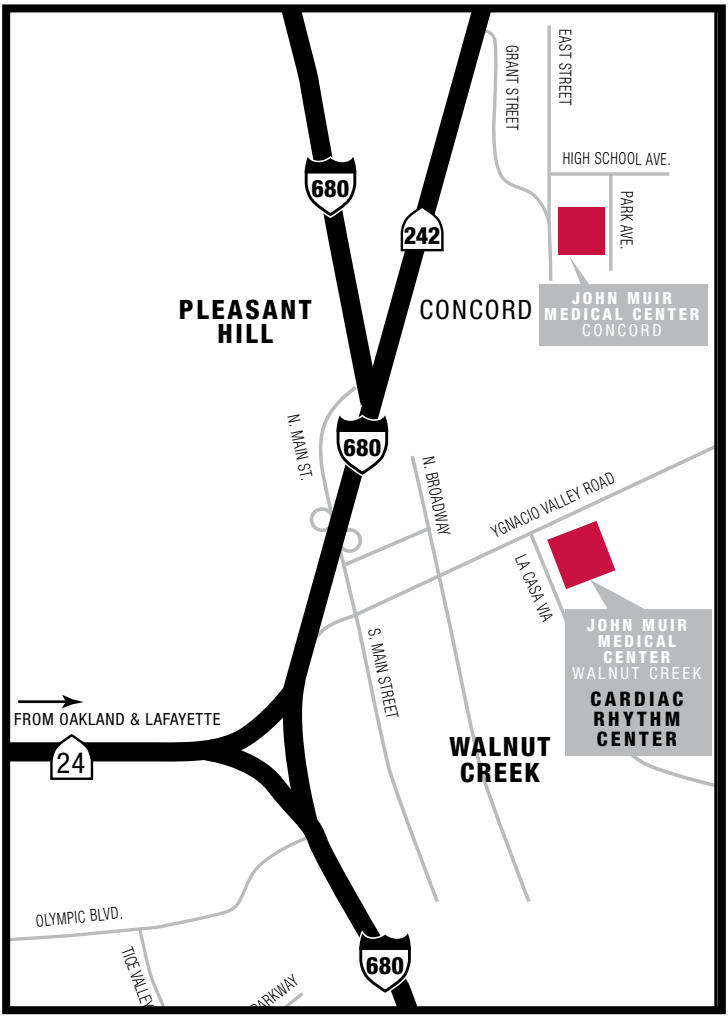
Cardiac Rhythm Center

John Muir Medical Center – Walnut Creek

1601 Ygnacio Valley Road

Walnut Creek, CA

For more information about the Cardiac Rhythm Center, visit **johnmuirhealth.com** or call **(925) 947-3332.**

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