

A ROUNDTABLE DISCUSSION

**CARDIAC CARE:**

BATTLING HEART DISEASE AND STROKE

>>Heart disease is the No. 1 killer worldwide, and stroke ranks second globally. Even when those conditions don't result in death, they cause disability and diminish quality of life.

Three Chicago-area cardiologists shared their insights on detecting, treating and preventing cardiovascular disease with Crain's Content Studio.

**CAROLINE BALL, MD**

Cardiologist  
Loyola Medicine  
caroline.ball@lumc.edu  
708-643-6192

**JOHN CAHILL, MD**

Medical Director - Cardiac Catheterization Lab  
Elmhurst Hospital  
Edward-Elmhurst Health  
john.cahill@eehealth.org  
331-221-9003

**THOMAS J. QUINN, MD**

Director - Cardiovascular Institute  
Palos Health  
tquinn@paloshealth.com  
708-923-4200

**Please describe your hospital's/health system's approach to cardiac care.**

**Dr. John Cahill:** Edward-Elmhurst Health is forward-thinking and compassionate, bringing a wide range of expertise and innovation to our community that's most often associated with academic medical centers. This enables our patients to stay close to home and their support system, while obtaining the latest treatment options. We're continually introducing new and groundbreaking diagnostic techniques and treatment technology, and we're committed to providing the highest-quality heart care available. Our heart team has advanced training in cardiology, cardiovascular surgery, interventional cardiology and electrophysiology.

**Dr. Thomas J. Quinn:** Palos Hospital is at the forefront of delivering quality cardiac care in the community hospital setting. We continue to expand cardiovascular services and provide quality care, from diagnostic and screening through the entire spectrum of therapeutic services, management of acute myocardial infarction, electrophysiological procedures and ablation as well as open heart and valve replacement surgery. In addition to acute care, we also provide post-acute care services including cardiac rehab. Plans are currently underway to incorporate newer, less invasive cardiology services for treating valvular heart disease.

**Dr. Caroline Ball:** Loyola Medicine uses a multidisciplinary approach to address all aspects of cardiac care. Our nationally ranked cardiology and heart surgery team spans multiple disciplines, including cardiology, cardiovascular and cardiothoracic surgery, interventional cardiology and vascular surgery. Our expert physicians and advanced practice nurses are highly trained in the prevention, diagnosis and treatment of a wide array of heart disease. We work with each patient to reduce his or her risk of heart disease and develop a heart treatment plan customized

to each individual person. We have the oldest heart transplant program in Illinois and have performed more than 800 heart transplants since the program started in 1984, with excellent outcomes. Loyola University Medical Center's cardiology and heart surgery program is ranked among the top 40 centers nationwide by *U.S. News & World Report*.

**How has cardiac disease screening and treatment changed over the last decade?**

**Ball:** The biggest change has been the use of structural interventions in place of traditional open-heart surgery. Transcatheter aortic valve replacement and others have been gamechangers in how we treat structural heart disease for both men and women. In the past decade, we've seen a shift toward more sex-specific cardiac care, with better recognition of cardiac conditions that predominantly affect women,

such as spontaneous coronary artery disease or SCAD, which is a heart attack caused by a tear in the coronary artery, rather than the traditional plaque rupture in the coronary artery. We're also screening for stress cardiomyopathy—a condition in which intense emotional or physical stress causes heart muscle weakness—and we're seeing emerging data on managing pregnancy for patients with complex cardiovascular diseases.

**Cahill:** Fractional flow reserve with coronary CT angiography has changed the way we diagnose and plan the treatment of coronary blockages. It involves using noninvasive coronary CT angiography and artificial intelligence to create a personalized 3D model of each patient's arteries, providing actionable information by assessing the impact of blockages on blood flow. From a treatment perspective, minimally invasive techniques

and innovative new devices are more available to patients who suffer from cardiac ailments, but are too high risk for traditional interventions.

**Quinn:** Newer, widely adopted medical therapies for heart failure have helped stabilize the disease process and improve quality of life. The widespread use of outpatient heart failure clinics has significantly reduced readmission rates.

**What segments of the population are experiencing more heart attacks and why?**

**Quinn:** The older population seems to experience more myocardial infarctions. More often it's a non-ST-elevation myocardial infarction, or NSTEMI—a type of heart attack where coronary artery blockages are partial or temporary, causing less damage to a patient's heart. This is due to the widespread use of statin therapy, which has delayed the disease process.

## Loyola Medicine Treats Women's Heart Disease with Advanced, Targeted Care.

Caroline Ball, MD, specializes in women's cardiac health at Loyola Medicine, providing gender-focused care for female heart disease patients.



Heart disease is the #1 killer for women in the United States, but we're fighting it every day with gender-specific treatment advances at Loyola Medicine. Better medical therapies, improved diagnostic techniques and significant progress in heart disease intervention mean more lives saved.

Connect with **Loyola Medicine** online



[loyolamedicine.org](http://loyolamedicine.org)



**LOYOLA MEDICINE**

A ROUNDTABLE DISCUSSION  
**CARDIAC CARE:**  
 BATTLING HEART DISEASE AND STROKE

**Cahill:** Recent studies show an alarming increase in heart disease among younger patients, especially women. According to the American Heart Association, cardiovascular disease is the No. 1 killer of women, resulting in 1 in 3 deaths each year. Heart attack symptoms in women often present differently than in men, so women sometimes are misdiagnosed or not provided with the proper treatments. It's no longer a disease primarily associated with men. While the cause for this change is unknown, one can surmise that our fast-paced lifestyles, high levels of stress and untreated chronic health issues may be contributing to this change.

**Ball:** It's not just about who's experiencing more heart attacks, but who's experiencing complications of heart attacks. Overall mortality from heart attack has dropped in the United States over the past 30 years. However, among U.S. women under age 55 there's been no decline in mortality during the same time frame. This may be due to bias in recognizing heart attacks in young women—this is an age group that's historically "low risk" for heart attack. We're

learning that women may experience different types of heart attacks than men, such as SCAD, which require different treatments.

**What types of new technologies are you using to diagnose and/or treat heart disease?**

**Ball:** Cardiac imaging has progressed significantly over the past decade. Non-invasive imaging techniques such as cardiac CT and cardiac MRI allow us to diagnose heart disease without exposing patients to the risks associated with traditional angiography. Cardiac MRI has special application in the diagnosis of microvascular disease and stress cardiomyopathy—both of which are found more frequently in women. Interestingly, social media has been an important tool for advancing awareness about heart disease in women, especially with SCAD. There's a large and very supportive online community of women who have been affected by SCAD, who work to raise awareness of the disease and its risks, and even fund research.

**Cahill:** CT scanning of the coronary arteries allows an accurate assessment of coronary artery plaque burden. If the arteries are clear on this test, it allows the doctor to confidently reassure the patient concerning the origin of chest pain without having to undergo the riskier invasive angiogram. For borderline blockages, additional flow measurements tell the doctor which blockages are dangerous, allowing for targeted intervention in these areas. Cardiac MRI is being used to evaluate heart valve disease, identifying the causes of weakened heart muscle, the origins of heart rhythm irregularities, and which patients will most benefit from bypass surgery and/or stents.

**Quinn:** We have a very active electrophysiology lab to diagnose and treat atrial arrhythmias, also known as afib. We have a high success rate performing supraventricular tachycardia ablation, atrial flutter and atrial fibrillation to help control heart rhythm problems. And we offer transesophageal echo-guided placement of left atrial appendage occlusion devices—an alternative therapy



**THIS IS PERSONAL**

**Grace Lach, RN**  
 Director of Interventional Cardiology

**Edward-Elmhurst**  
 HEART HOSPITAL

Take your free HeartAware Assessment  
 at [ThisIsPersonalIEEH.org](http://ThisIsPersonalIEEH.org)

**Healthy Driven**

**ABOUT THE PANELISTS**

**CAROLINE BALL, MD, is a cardiologist at Loyola Medicine's heart and vascular program, specializing in women's heart disease and prevention of cardiovascular disease. She earned her medical degree from Loyola University Chicago, completed her residency in internal medicine at Mayo Clinic Rochester and a cardiology fellowship at Loyola University Medical Center. She is a registered physician in vascular intervention, and is board certified in echocardiography by the American Board of Internal Medicine.**



**JOHN CAHILL, MD, is a board-certified interventional cardiologist and medical director of the Cardiac Catheterization Lab at Elmhurst Hospital. He is also on the medical staff of Edward-Elmhurst Health, which includes Edward Hospital and Elmhurst Hospital. He earned his medical degree from and completed his internship, residency and fellowship at the Loyola University Stritch School of Medicine. He is a member of the American College of Cardiology, American Society of Internal Medicine and Society of Cardiac Angiography.**



**THOMAS J. QUINN, MD, is director of the newly formed Palos Health Cardiovascular Institute in Palos Heights and Orland Park. He has been in private practice over 35 years while also holding various leadership positions in cardiology services. Board certified in cardiovascular diseases and echocardiography, he remains active in the "personal" practice of medicine. Castle Connolly has named him one of the Chicago area's top cardiologists each year since the guide began publishing in 1999.**



for stroke prevention—to patients who want to come off of anticoagulation medications, which can have many side effects.

#### Are you involved with any cardiac care clinical trials?

**Cahill:** Our heart team is at the forefront of research, and participates in many pioneering clinical trials. Because of this commitment, we're able to offer highly specialized, complex heart procedures that are lifesaving for patients who have no other treatment alternative. Physicians from healthcare organizations around the country come to Edward-Elmhurst to be trained in these procedures.

**Ball:** Through the National Institutes of Health, we have the ability to enroll SCAD patients in clinical trial registries. These registries have given us a better understanding of treatment strategies and as they grow, we'll learn a lot more about this important disease. We're also learning about better treatments for microvascular disease—the narrowing of the small blood vessels that branch off from the coronary arteries—including improved diagnostic techniques and better medical therapies. We're interested in the opportunity and beneficial implications that microvascular disease clinical trials can bring to our cardiac patients.

**Quinn:** We're involved in multiple national registries, including The Society of Thoracic Surgeons for adult cardiac surgery, transcatheter valve therapy registry, as well as registries involving cardiac catheterizations, acute myocardial infarction and left atrial appendage occlusion devices.

#### How do you support cardiac care patients and their families?

**Ball:** We treat the whole person—body, mind and spirit. We dedicate time to review our patients' symptoms, going over with them what they can expect and what they should watch out for. We review patients' heart imaging with them in clinic; we find that sometimes seeing the abnormality on the screen helps them better understand the problem and get on board with a treatment plan.

**Quinn:** When patients are admitted to the surgical heart unit, they stay in one room, with one nursing team from pre-surgery through post-surgery until discharge. This individualized approach allows patients and their families to see their progress and participate in the recovery phase of their care. Consistent education, directed toward the specific needs of the patient, aids in their recovery.

**Cahill:** We have personnel on call 24/7 to answer patients' questions and address symptoms. We take time in the

office to explain the underlying heart disease, its causes and the treatment options. We believe in shared decision-making with the patients. For more in-depth discussions and close follow-up for certain common conditions, such as atrial fibrillation and congestive heart failure, we have outpatient specialty clinics staffed by highly trained nurse specialists that can see a patient on short notice.

#### What should patients look for when seeking cardiology care?

**Cahill:** Patients should choose a hospital and medical practice with the capability to offer state-of-the-art diagnostic and therapeutic procedures, and experience achieving good outcomes with low complication rates. A medical system with involvement in research and clinical trials is an indication that the system is forward-thinking, and can offer new therapies for difficult diseases that are not responding to standard treatment. Most trials originate in academic medical centers, but many patients don't have access to those facilities for a number of reasons. Having the availability of that treatment in the community, close to home, is an invaluable asset. On a personal level, patients should find a doctor who will spend time with them and listen, one who's thorough and who puts the patient's needs above all else.

**Quinn:** It's important to find a health system with a strong cardiovascular program, offering the full continuum of cardiology treatment, ranging from quality diagnostic services to cardiac rehabilitation to serve patients at any stage of the disease. When it comes to cardiac care, access is key, and receiving care in the community setting makes it easier to develop a strong relationship with the physician, who gets to know the patient and can develop a care plan tailored to each patient's needs. Patients should seek care from an experienced and integrated team that can guide them through appropriate screening and diagnostic studies. At Palos Health, the physicians caring for our cardiology patients received their medical training at some of the most prestigious medical institutions. The ability to diagnose a cardiac problem and follow the patient through their treatment regimen in the post-treatment time is crucial to successful outcomes.

**Ball:** I think it's best for patients to receive their care at a large health system, such as Loyola Medicine, with specialists in multiple cardiac conditions. This allows physicians to take a team approach to care for patients with complex conditions and facilitates the transfer of test results between physicians to minimize care delays. Large academic medical centers have access to the latest diagnostic test technology, as well as access

to new treatment strategies. No one expects their cardiac condition to require specialized care, but it's best to seek care at a health system that's well-equipped to handle any condition.

#### What's the one recommendation you'd make to a person wanting to improve or maintain their heart health?

**Ball:** Avoid or manage risk factors and be aware of your specific heart history. Traditional risk factors such as smoking, high blood pressure, diabetes, high cholesterol and family history are important for predicting heart attack and stroke. For women, reproductive history gives us additional clues as to the overall risk of heart attack and stroke—having a personal history of high blood pressure in pregnancy, preeclampsia, eclampsia or gestational diabetes increases women's risk for cardiovascular disease decades later. Additionally, some treatments for breast cancer, while lifesaving, may increase the risk of heart disease down the road. We're now more aware of these complications and conduct appropriate screening for them.

**Quinn:** Define your individual risk score using commonly available methods, including online apps such as ASCVD Risk Estimator Plus. If your score is intermediate or high-risk and without symptoms, consider further noninvasive testing, such as calcium scoring, CT coronary angiography, ultrasound screening, stress testing and

a full lipid blood test. These can determine whether further lifestyle modifications and medications should be instituted to maintain heart health.

**Cahill:** Eat a healthy diet and get regular exercise. I tell patients to see a dietician, as they're the experts in a proper cardiac diet. Our dietary department is an excellent resource for this type of referral. I believe that regular exercise is the best treatment for arterial disease, and that there's benefit in any level of exercise if done consistently.

#### How about a patient who's just had a heart procedure - what's the one piece of advice you'd offer them?

**Quinn:** Take advantage of cardiac rehab services, also known as CR. There's evidence that CR reduces mortality, morbidity and unplanned hospital admissions, as well as improves exercise capacity, quality of life and psychological well-being.

**Ball:** A quality CR program does more than get patients moving after a recent diagnosis or procedure. It educates patients about their new medications and helps them make lifestyle changes specific to their condition. CR programs are great resources for cardiac patients, and can provide an excellent support structure for the patient and their caregivers.

**Cahill:** While cardiac procedures allow us to control heart conditions and improve an

individual's quality of life, there's little in cardiology that we actually cure. Therefore, a patient must continue taking all prescribed medications and see their doctors as scheduled to achieve optimal long-term benefit.

#### Where do you see cardiac care headed in the next 5-10 years?

**Quinn:** Treatment and follow-up of patients with valvular heart disease will not only be offered to high-risk patients, but to the general population. They'll be commonly available in easily accessible community hospitals. The treatment of other disease processes, such as diabetes and cancer care, will become integrated with cardiology care. New cardiac subspecialties, such as cardiac oncology, are developing, with more to follow.

**Cahill:** We'll continue to see advances in treating heart disease with less invasive techniques and effective, well-tolerated medications, allowing people to avoid riskier surgeries. We'll make advances in identifying—at an earlier age—those with a genetic predisposition to having heart disease, allowing for better preventive care.

**Ball:** We're looking to expand non-invasive diagnostic strategies, such as EKGs and echocardiograms, particularly for microvascular disease. We're also gaining experience managing pregnancy in women with heart disease, both congenital and acquired. This is another exciting and growing field.



## Advanced Treatment of Complex Cardiac Conditions

THAT'S PALOS HEALTH TODAY

At Palos Health, experienced Cardiovascular Surgeons, Cardiologists, Nurses, Dietitians and other Practitioners use state-of-the-art therapies and minimally invasive procedures to help patients resume normal daily activities sooner.

To find a Cardiologist affiliated with Palos Health, call 708.226.2300

