Heart to Heart

WakeMed Heart & Vascular News

Summer 2024







JACEK PASZKOWIAK, MD, FACS Vascular Surgeon, WakeMed Heart & Vascular - Vascular Surgery





September is PAD Awareness Month

Without proper diagnosis and treatment, Peripheral Artery Disease (PAD) can lead to limb amputation, coronary artery disease, heart attack and stroke. Scan the QR code below to learn more about PAD symptoms.



Jacek Paszkowiak, MD, FACS, is a vascular surgeon practicing in Cary who is passionate about helping patients overcome vascular disease through early intervention and advanced treatment.

Q: Tell us a little bit about yourself.

I was born in Poland 51 years ago, and have lived in the United States for 25 years now. I met my wife, Barbara, on my first day of medical school where she was also studying to be an internal medicine doctor. We have two children – my son is enrolled in medical school back in Poland where I graduated, and my daughter is a junior at Cardinal Gibbons who is also considering a career in medicine. I enjoy skiing, long-distance mountain hiking and going sailing with my kids.

Q: When did you know you wanted to become a doctor, and why were you drawn specifically to vascular medicine?

My older brother is a family medicine doctor in rural Oklahoma, and I decided to follow in his footsteps back when I was in high school. My sister is also a vascular surgeon in South Carolina. I was drawn to vascular surgery because it is both challenging and rewarding at the same time. As a vascular surgeon, I get to work with patients for many years of their lives, which gives me the chance to create very personal bonds. At the same time, many of our patients suffer from multiple health problems – which can make the care we deliver incredibly complex. As such, we have the benefit of collaborating with both patients and an extended team to ensure we're delivering the best care.

Q: What do you want people to know about vascular disease?

Vascular disease is a systemic disease that can affect every single vessel (e.g., veins and arteries) in a patient's body, and there are approximately 60,000 miles of vessels in the human body. Because there's not as much awareness around vascular disease as there is around heart disease, educating patients about what it is and its signs and symptoms is important. We know that early detection and treatment can help patients live longer, healthier lives and prevent serious problems such as amputation, aneurysm, stroke, etc.

Q: How has treatment for vascular disease evolved?

Vascular disease is caused by multiple risk factors – so it's critical to treat the underlying disease. Even though I'm a surgeon, my goal is to prevent the need for procedures by first slowing down or stopping the progression of the disease. At WakeMed, our treatment model for patients with vascular disease has evolved significantly over the years. Today, we're working more collaboratively with other specialists involved in a patient's care to provide a comprehensive approach that can prevent the worsening of the disease and its related symptoms. On the procedural side, we have a wide range of minimally-invasive options and open surgical techniques to provide patients with better quality of life and optimal health.

Q: It's Summer Olympic season – do you have favorite activities or athletes you're following this year?

I will definitely be watching Polish athlete Anita Wlodarczyk, who is a female hammer throw competitor. She's a three-time gold medal champion and now competing for her fourth consecutive Olympic gold medal.

Heart to Heart

SUMMER 2024

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Last year, Team WakeMed raised more than \$75,000. Let's see how much we can raise this year, together!

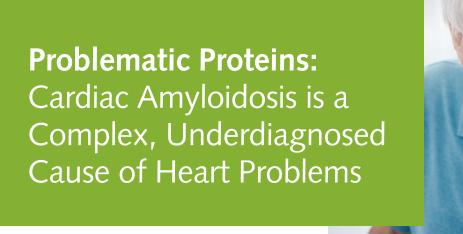
Join Team WakeMed for the 2024 Heart Walk

We hope you can join Team WakeMed on Sunday, September 8, for the 2024 Triangle Heart Walk. You can walk with us, or form your own team – our goal is for Team WakeMed to come in strong this year with a minimum of 100 teams/team captains all walking with us to raise funds that will support research, education and awareness around heart disease.

To join our team, scan this QR code or visit The American Heart Association website to sign up.

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There are nearly 20,000 proteins present throughout the body, but one protein in particular can cause problems when it accumulates in various areas of the body – especially the heart.

Amyloidosis (am-uh-loi-doh-sis) is a rare disease that occurs when abnormal proteins called amyloid fibrils build up in organs or tissues of the body – leading to disfunction or damage. While it's fairly uncommon, many cardiologists actually believe amyloidosis may not be as rare as it's made out to be – but its wide range of seemingly unrelated symptoms can make it difficult to identify and diagnose.

When amyloid fibrils build up in the heart, it's known as cardiac amyloidosis. Cardiovascular problems that can occur due to amyloidosis include congestive heart failure, rhythm disorders such as atrial fibrillation, and heart valve diseases including aortic stenosis, among others. Common symptoms caused by these conditions could include: fatigue, shortness of breath, exercise intolerance, heart palpitations, fainting or swelling of the lower extremities or abdomen.

However, when these proteins build up in other areas of the body, amyloidosis may present in other ways – including carpal tunnel syndrome, enlargement of the tongue, lower back pain caused by spinal stenosis, neuropathy or numbness of the hands and feet, GI symptoms, among numerous other health problems. This makes it important to talk to your doctor about any medical symptoms you're having – even if you don't think they're related to the heart.

"While amyloidosis is categorized as rare, what we're learning is that it's actually very underrecognized and under-diagnosed – particularly as a common cause of heart failure," explains Dr. Kishan Parikh, WakeMed Heart & Vascular - Advanced Heart Failure. "Creating more awareness around these conditions can help patients and providers work together to arrive at more timely diagnoses for those with amyloidosis – which can lead to greater quality of life, longevity and overall health."



KISHAN PARIKH, MD WakeMed Heart & Vascular -Advanced Heart Failure

Types of Cardiac Amyloidosis

There are numerous types of cardiac amyloidosis – and they are not all created equal. Some are hereditary, while others have no genetic link. Here's a quick overview of the most common types:

Light chain amyloidosis, also known as AL amyloidosis, most often affects people between the ages of 50 and 80 and is more prevalent in males. It's a bone marrow disorder that occurs when certain proteins (light chain proteins) are misfolded and, therefore, get hung up or accumulate in various organs throughout the body, including the heart.

Transthyretin amyloidosis, also known as ATTR amyloidosis, is when a protein made by the liver (transthyretin) gets overproduced and therefore accumulates in tissues such as the heart and nerves. There are two subtypes – hereditary ATTR, which is caused by a genetic mutation and may occur in younger adults (ages 50 and up); and wild-type ATTR, which is seen more often in adults age 70+. Because ATTR amyloidosis may affect the nerves, it's sometimes seen with other neurological symptoms such as carpal tunnel syndrome, lumbar spine problems and difficulty swallowing. It is even associated with bicep tendon ruptures. These non-cardiac symptoms may occur years before any heart-related symptoms occur.

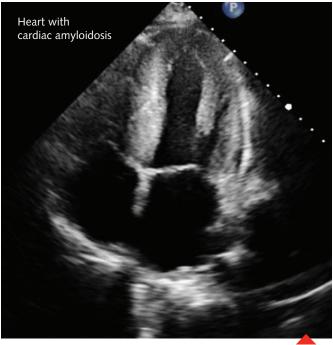
There are several additional rare types of cardiac amyloidosis, including those associated with dialysis, certain blood cancers, and more.

How Cardiac Amyloidosis Affects the Heart

The accumulation of proteins can affect both the structure of your heart as well as its ability to pump. Here are just a few ways cardiac amyloidosis can impact your heart.

- Thickening of the heart walls and enlargement of the heart occurs when proteins build up in the heart muscle. This makes it harder for the heart to pump, which ultimately leads to heart failure. It's important to note that patients with heart failure from amyloidosis generally have preserved ejection fraction, which means the heart is pumping properly, but not relaxing as it should.
- Electrical problems occur when the accumulation
 of proteins disrupts the heart's normal conduction
 patterns. This may lead to cardiac arrhythmia or a
 weakened electrical current. The most common
 electrical problem associated with amyloidosis is
 atrial fibrillation.
- Amyloid buildup can cause clusters of protein to form that can stiffen the heart valves – leading to problems such as aortic stenosis.





Cardiac echo images show a healthy heart vs. heart with cardiac amyloidosis. Diseased heart shows, in white area, the thickened septum (heart wall) with protein buildup.

The wide range of seemingly unrelated symptoms can make cardiac amyloidosis difficult to identify and diagnose.

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Diagnosis of Cardiac Amyloidosis

Because this condition presents itself in numerous ways and in various areas of the body, it can be difficult to diagnose.



STUART RUSSELL, MD WakeMed Heart & Vascular - Advanced Heart Failure

Dr. Stuart Russell of WakeMed Heart & Vascular - Advanced Heart Failure explains that suspicion of cardiac amyloidosis is the first step to diagnosis. Without suspicion of the disease, doctors wind up simply treating its downstream effects. Unfortunately, in patients with cardiac amyloidosis, standard treatments for heart failure, rhythm problems and heart valve issues may not be as effective.

"For patients who have e experiencing heart fail

ATTR specifically and are experiencing heart failure, standard treatments such as diuretics and blood pressure medications may actually prompt adverse effects – rather than help improve symptoms," explains Dr. Russell. "Likewise, patients who have amyloidosis and a cardiac arrhythmia may not respond to a pacemaker like we'd expect. Those are tell-tale signs that we're not just treating heart problems, but that there may be another disease process present."

Once amyloidosis is suspected, the diagnostic path will vary from patient to patient depending on symptoms and medical history. Initial testing may include an ultrasound of the heart (echocardiogram) or an electrocardiogram (ECG) to get a closer look at the cardiac problems. From there, doctors may order an MRI or a biopsy to look for visual or physical evidence of protein buildup. If the genetic form of ATTR is suspected, genetic testing may be required to confirm the diagnosis. Either way, an accurate diagnosis is likely to take time, but is critical to determine the best path to treatment.

"Failure to accurately diagnose and treat cardiac amyloidosis can lead to worsening heart failure and frequent hospitalization – which have a real impact on a patient's quality of life," explains Dr. Russell. "The good news is that once we arrive at a diagnosis, there are options for treating it effectively that we didn't have 10 years ago."

Depending on the type of amyloidosis and each patient's symptoms, treatment can vary greatly. Newer medical therapies can be highly effective, particularly the use of medications for ATTR amyloidosis. Other options could

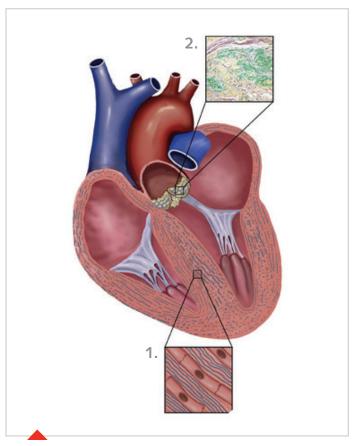


Illustration shows heart with amyloidosis infiltrating 1) cardiac muscle causing heart failure and 2) aortic valve causing aortic stenosis. *Illustration Source*: Julien Ternacle et al. *JACC* 2019; 74:2638-2651.

include chemotherapy, immunotherapy, or stem cell, liver or kidney transplantation. In most cases, your cardiologist will also treat the specific heart problems caused by amyloidosis, such as heart failure, cardiac arrhythmia or valve problems – using the standard treatment protocols for each of those conditions.

"Cardiac amyloidosis often looks and acts a lot like heart failure – and because it can also lead to heart failure, in many cases it's not diagnosed until it is more advanced," explains Dr. Parikh. "If I had to summarize what we want patients to know, it's this. If you have heart failure, aortic stenosis or a cardiac arrhythmia that's not responding to traditional treatments – consider asking your cardiologist about amyloidosis."

"The good news is that once we arrive at a diagnosis, there are options for treating it effectively that we didn't have 10 years ago."

- DR. STUART RUSSELL



Clinical Research Update

Clinical Study Uses Scale With Advanced Sensors to Assess Heart Failure Patients

A study (LOSS-HF) led by Stuart Russell, MD, will assess the use of a smart scale to collect biomarker data to help manage hospitalized heart failure patients with a goal of reducing length of stay. Patients will use the cardiac scale twice daily to track body weight, pulse weight, peripheral impedance and more – all from the soles of their feet; the data will help caregivers track the patient's condition.



The Advanced Heart Failure and Clinical Research Institute teams showcase a Bodyport Cardiac Scale.

Machine Learning + Handheld Device Could Offer Non-Invasive Monitoring Option



Pictured left to right: Haleigh Berst, Jenna Cassels, Rhonda Norton, Dr. Stuart Russell

The most effective way to manage heart failure patients is using intracardiac pressure monitoring, yet it's a measure that historically could only be collected using invasive procedures. A startup called Acorai aims to change that with a new handheld sensor device that uses a smartphone and smartwatch in conjunction with machine learning models. During a pilot study led by Dr. Stuart Russell, an assessment of the new technology's accuracy in estimating intracardiac pressure was conducted by comparing the Acorai device data with measurements obtained during an invasive cardiac catheterization. It is hopeful that these technologies could be used to monitor heart failure patients without the need for invasive procedures, minimizing the risk of infection and reducing healthcare costs.

Raleigh Campus Re-Certified as Thrombectomy Capable Stroke Center

WakeMed Raleigh Campus has been re-certified as a Thrombectomy-Capable Stroke Center from The Joint Commission. The certification follows a two-day survey that took place in April and involved WakeMed staff sharing protocols, processes and capabilities in providing care to patients presenting with stroke symptoms, including advanced interventional procedures and post-procedural care. Congratulations to our Raleigh Campus Stoke Team!





The Joint American Hea Association American Stro

CERTIFICATION

Meets standards for

Thrombectomy-Capable

Stroke Centers

Hospitals achieving
Thrombectomy-Capable
Stroke Center Certification
must meet rigorous standards
for performing endovascular
thrombectomy and providing
post-procedural care.



WakeMed Recognized for Top Quality Stroke Programs

The WakeMed physicians and staff who care for stroke patients were recognized once again for delivering the highest level of care. Congratulations to our teams for earning national Get With the Guidelines® Quality Awards and Target honors from the American Heart Association.

Our Raleigh Campus and Cary Hospital teams both meet or exceed national guidelines for ensuring stroke patients receive the most appropriate treatment and education according to nationally recognized, research-based guidelines, ultimately leading to more lives saved and reduced disability. Congratulations to our incredible care teams and thank you for all you do on behalf of our stroke patients!

HEART TO HEART

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NEW + NOTEWORTHY

Welcome Dr. Sampson!



Dr. Andrew J. Sampson is a board-certified, fellowship-trained interventional and general cardiologist. He specializes in diagnosing all types of cardiovascular diseases and performs heart catheterizations, interventions and minimally invasive valve procedures.

Dr. Sampson began his

postsecondary education at Earlham College in Richmond, Ind., where he earned his bachelor's degree. He went on to medical school at Wright State Boonshoft School of Medicine in Dayton, Ohio. He completed his residency through the University of North Carolina at Chapel Hill. He then served as a fellow at St.Vincent Heart Center in Indianapolis, Ind.

Dr. Sampson specializes in preventive cardiology and creates personalized care plans with his patients. In his free time, Dr. Sampson enjoys spending time with his family and friends, cooking and exercising.



Our Fuquay-Varina Cardiology Office Has Relocated

This spring, WakeMed opened its newest medical park in Fuquay-Varina. Our cardiology office moved from its previous location off Judd Parkway to this new location at 2400 N. Main Street. Our new office offers more exam rooms and treatment areas to serve the greater Fuquay-Varina community. Other services located in the building include: Primary Care, Wake Orthopaedics (including Physical Therapy), lab and imaging services (provided by



Raleigh Radiology). OB/GYN and Urology will open in the coming months.

Dr. Sheel Tolia is accepting new patients at this location.

WakeMed Heart & Vascular - Cardiology 2400 N. Main Street Fuquay-Varina, NC 27526 (919) 232-0322



Business Leaders Learn CPR, Heart Health Basics

This June, WakeMed Apex Healthplex proudly hosted a CPR Anytime class for the Apex Chamber of Commerce. More than 30 Chamber members stopped by to learn hands-only CPR and to talk about heart health with staff from the Apex Healthplex Emergency Department and Jennie Buchkovich, PA-C, from the WakeMed Heart & Vascular – Cardiology Apex office.

One Year of the WakeMed Atrial Fibrillation Center

The WakeMed Atrial Fibrillation Center (AFib Center) celebrated its one-year anniversary having opened in the WakeMed Heart Center in May 2023. In just one short year, the center has served more than 375 patients with an average wait time from referral to provider appointment of just 1.1 days.

In alignment with WakeMed putting patients and families first, the AFib Center offers a state-of-the-art model to center care around the patient. "Caring for patients with AFib can be complex and often the different pieces of their ongoing care experience don't connect like they should," explains Amanda Thompson, executive director of Heart & Vascular Services. "The AFib Center provides a multidisciplinary approach to help patients understand their condition and steps to take to improve their overall health, experience better quality of life and reduce return AFib-related visits to the hospital. The impact this center is having on our patients is truly remarkable."

Patients treated at the AFib Center have access to the latest treatments and interventions available and coordinated follow-up care with supporting WakeMed programs, such as Quit With WakeMed or the WakeMed Bariatric Surgery & Medical Weight Loss team. The AFib Center staff also works with a patient's cardiologist to support the patient's ongoing care. This commitment to patients helped earn the AFib Center a recent 5-Star PRC award.

Other wins the AFib Center celebrated in its first year include:

80

Hospitalizations avoided

28

ED visits avoided

\cap

Readmissions of AFib Center patients within 3 months of their AFib Center visit

62 days

Average time from AFib Center visit to patients who need and receive ablation treatment



WakeMed Heart & Vascular Practices & Providers Recognized for Excellence

Professional Research Consultants (PRC) annually identifies health care organizations that have gone above and beyond to achieve excellence with the patient experience. The PRC Excellence in Healthcare Awards are based on the percentage of patients surveyed who rate the Overall Quality of Care/Overall Quality of Doctor Care (for providers) as "excellent." *Congratulations to our Heart & Vascular and supporting services award winners!*

Top Performer Awards

Cardiac Rehab – Cary Cardiac Rehab – Raleigh Campus

5-Star Awards Units/Departments/Physician Practices

Heart Center Cardiac Unit – Raleigh Campus (pictured above)

Mobile Critical Care

Advanced Heart Failure – Raleigh Campus (pictured right)

Atrial Fibrillation Center - Raleigh Campus

Cardiology – Brier Creek

Cardiology - Oberlin

Complex Arrhythmia - Raleigh Campus

Pediatric Cardiology - Apex

Pediatric Cardiology - Clayton

Pediatric Cardiology - North

Providers

Michelle Deans, PA-C – Atrial Fibrillation Center

Mark Englehardt, MD - Cardiology

Bobby Ferguson, DO – Cardiovascular & Thoracic Surgery

George Hamrick, MD – Cardiology

Chelsea Ngongang, MD – Cardiology

Blair Robinson, MD – Pediatric Cardiology

Stuart Russell, MD – Advanced Heart Failure

Matt White, MD – Cardiology

Jennifer Whitham, MD – Pediatric Cardiology

Judson Williams, MD - Cardiovascular & Thoracic Surgery



Golfing for Good Health

"One thing I love about golf is that anyone can play."

- DR. FRANCES WOOD



Staying active, both physically and mentally, is important for good health – particularly as we age. While some opt to hit the gym, hitting the green is another great way to get your body and mind moving. Here in North Carolina, golf courses and driving ranges are abundant, and golfing provides a unique and flexible way for adults of all ages to maintain an active lifestyle well into their golden years.

Golf 101

Traditional golf is played on a large open-air course. The goal is to hit a golf ball to the green and into the hole with the fewest number of hits, also known as strokes. People of all ages and skills can play. Not only can golf be played during most months of the year in North Carolina, but it also offers a variety of benefits that can boost physical, mental and cardiovascular health, and enhance the quality of life for older adults, regardless of age, skill or ability.

"Golf is a great way to engage both physically and mentally, which can help improve cardiovascular health, mood, and your core strength," says Dr. Frances Wood, WakeMed Heart & Vascular – Cardiology.

Dr. Wood shares that the guidelines set forth by the Centers for Disease Control and Prevention state that adults need 30 minutes of continuous exercise on most days of the week, or a total of 150 minutes per week.

Fortunately, golf addresses these guidelines with ease – and the course can be played in a variety of ways depending on an individual's health and mobility. For those looking to reap the most health benefits, walking the full 18 holes while carrying your clubs can provide a great cardiovascular workout. Others may opt to walk the course but use a pushcart for their clubs. And for those with limited mobility or stamina, golf carts can be used to navigate the course.

Dr. Wood reiterates that any level of activity is better than none and suggests that players who want to be active but have limiting conditions or factors consider walking the first nine holes and then finishing up with a golf cart – or taking turns with a friend driving a golf cart and walking every other hole.

"One thing I love about golf is that anyone can play. It's a game that can be customized so that everyone can have a fun time. I enjoy playing couples golf, ladies golf and by myself," adds Dr. Wood. "In fact, I have been playing golf recreationally for years, but recently had surgeries on my arms. I'm still able to play a few times a year using a pushcart to carry my clubs, play 9 holes rather than 18 and limit my hits when needed. Likewise, I have patients with significant hip and knee problems who play golf to stay active. It is ok to skip a shot or move a ball as long as your partners are notified, and you are not competing."

Golf - A Sport for All Skill Levels

Not only is golf a sport that can be played by those with physical limitations, it is also customizable based on skill level. This makes it an ideal sport to share with others, regardless of age or experience.

Dr. Wood continues, "It's also nice that players of varying skills levels can play together – in the world of sports, this is one thing that's fairly unique to golf. When starting, I recommend buying a used set of clubs and recycled balls."

Here are a few ways to tailor the game so your whole group can enjoy the sport together.

- Choose the right tee marker color for you Tee marker colors vary per course. However, on all courses, each color is used to identify the starting point on each hole based on skill level, level of difficulty, age or gender. For example, a black tee marker typically signifies the most challenging level. The tee markers help improve the experience and ensure a fair and enjoyable game for all players.
- Play the best ball This modified game keeps it fun
 when playing with a group with varying skill levels.
 For each hole, after each player has hit their first ball,
 everyone in the group will start playing from where
 the player with the best shot hits his or her first ball.
- Use the handicap system in scoring The optional handicap system helps level out the playing field in golf. A golfer's handicap represents the number of strokes that the player is expected to take above or below the course's par score. Knowing your golf handicap is a helpful way to track your progress, and it also allows golfers of all skill levels to play together with more enjoyment.
- Keep the pace of play moving Avoid more than 6-8 shots per hole depending on length of hole. Avoid searching for balls in weeds and woods.

Mental Health Benefits of Golf

Engaging in regular physical activity like golf can enhance mental health, increase quality of life, and even facilitate social connections that enhance overall mood and decrease feelings of loneliness – particularly for aging adults.

Because golf is often played alongside others, it promotes the camaraderie and socialization that are important to sustain as the years move on. Playing with others, walking with friends and chatting as you move through the course can be extremely beneficial to mental health.

"In your later years, the goal is to maintain physical and mental independence. The camaraderie, physical activity and self-competition are the best aspects of golf." says Dr. Wood. "Plain and simple, people who are more active



Dr. Wood's Tips for Getting Started With Golf

There are many ways to pick up golf, even if you've never played before. Here are a few tips for getting more acquainted with the sport:

- Find a friend who plays golf and invite them to join you at a driving range to hit some balls.

 Ask them to give you some tips.
- **Start small.** Begin by mastering one club such as pitching wedge or 9 iron and one type of swing at a time.
- Take a lesson, group or private. Lessons are typically conducted by a golf professional who possesses an in-depth understanding of golf techniques, rules and best strategies.
- Join a golf league. Search online for local golf leagues that might be a good fit for you. Leagues are often organized by different levels of experience, such as a beginner's league.
- Don't take the game too seriously! Golf can be a recreational activity that supports the goals of getting out, having fun, being social and staying active as you age.

as they age do better than those who are not. Also, as people age, they become more isolated. What's nice about golf is that people can play the sport together, and we know that people will exercise more often when it's done with friends. It's also a way to do something for yourself if you choose to play alone. You can enjoy the quiet fairways, listen to the birds, and use it as a form of exercise, relaxation and stress relief."



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When Flu-Like Symptoms Signal Heart Attack: Steve Swayne's Story

Left to Right: Dr. Ben Fischer and Steve Swayne

Early one April morning, Steve Swayne headed out for a run with his exercise buddy Dr. Ben Fischer who just happens to be a primary care doctor. After concluding the run, they continued with a group workout when Steve began feeling some unrelenting and bizarre symptoms. He experienced sluggishness, shortness of breath, lightheadedness, dizziness and pale skin – symptoms he likely would have chalked up to the flu had he not been in the company of a great doctor who knew better. His friend immediately called 911 due to the sudden onset of the symptoms.

Steve says, "If it weren't for my friend, I would have just gone home thinking I had the flu. He knew otherwise. At the time, I didn't realize how fortunate I was to have had him by my side, but it became very clear to me over the next two days."

When the paramedics arrived, they performed an electrocardiogram (EKG) that confirmed Steve was having an ST-elevation myocardial infarction (STEMI). They loaded him onto the stretcher and took him to WakeMed Raleigh Campus Emergency Department where a team of more than a dozen caregivers quickly stepped into action.

Steve recalls, "They moved quickly to get me to the catheterization lab, asking me a barrage of questions. It was wild and a little overwhelming, but I sure was thankful."

By 7:30 am, Steve found himself on the procedure table in the catheterization lab. WakeMed Heart & Vascular's Dr. Andrew Sampson, an interventional cardiologist, along with the WakeMed Heart & Vascular Invasive Cardiology care team, performed a coronary angioplasty to re-establish blood flow to the heart.

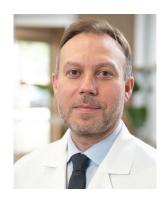
"If it weren't for my friend, I would have just gone home thinking I had the flu. He knew otherwise."

- STEVE SWAYNE

Steve was diagnosed with a 100 percent blockage in his right coronary artery and 60 to 70 percent in two other arteries. He also learned he was genetically predisposed to his heart condition.

By 8:30 am, Steve was lying comfortably in his patient room in WakeMed's Cardiovascular Intensive Care Unit (CVICU).

"Steve's story is a great example of how not everyone has the typical symptoms associated with a heart attack," says Dr. Sampson. "Seeking medical attention early if you have new and concerning symptoms can be lifesaving. Steve's quick recovery and excellent outcome is a tribute to the exceptional care provided by the entire EMS and WakeMed teams."



ANDREW SAMPSON, MD WakeMed Heart & Vascular Invasive Cardiology

"I couldn't believe that just a few hours later, I felt like I could run sprints down the hallway of the ICU," Steve laughs. "I seriously wanted to run sprints, but my nurses stopped that idea."

By the next morning, Steve was recovering well and was moved to a step-down unit. Later that day, Steve was discharged home with the tools, medication and confidence to move forward. He is hopeful he'll get the green light to start running again soon. In the meantime, he's strengthening his heart with less strenuous cardiovascular exercise and adhering to his medication regimen laid out in his daily pill box. He acknowledges it was the swift and expert care he received from his primary care doctor, EMS and WakeMed that saved his life.

"The care at WakeMed was truly inspiring. The hospitality, love and attention reflected not just knowledge of the mission statement, but the embodiment of it. All of that to say, whatever WakeMed is doing, keep doing it. The staff is tremendous. Their work, knowledge and expertise are top-notch."

A Slice of Summer Sweetness

Melons Are a Favorite Seasonal Treat with Health Benefits Galore

Whether sliced for a snack, served for dessert, or offered as a side dish at dinner, melons may be the perfect summer food. These sweet and juicy treats also offer a wide range of health benefits.

The Health Benefits of Melon

Once you've enjoyed a juicy summer melon, there are many reasons to feel pleased with what you just ate – especially if you selected melon over a processed snack or high-sugar dessert.

"Watermelon, cantaloupe and honeydew are all part of the melon family, and each can create a great heart-healthy snack that provides plenty of antioxidants, vitamins, minerals and fluids," says Monika Kraus, MS, RD, LDN, a registered dietitian with WakeMed. "Melon can also be very refreshing on a hot summer day."

All melons contain a high content of water, which aids in increasing the body's hydration level. They are also low in calories, and rich in vitamins and nutrients, such as vitamins A and C. Vitamin A helps maintain good vision, fight infections and promote skin health, while vitamin C can aid in healing cuts, and lower the risk for different types of infections.

Melons also contain an impressive number of carotenoids, which are antioxidants that can reduce the risk of disease and help cleanse the body of free radicals. When free radicals collect in the body, they create cell damage, which can lead to various diseases, like cancer. This imbalance of antioxidants and free radicals is called oxidative stress.

Antioxidants also help improve heart health and prevent coronary heart disease by impeding atherosclerosis. Atherosclerosis (when the heart's arteries thicken or harden due to a build-up of plaque) occurs when free radicals oxidize circulating lipoproteins (i.e. fats or oils).

· · · · · How to Tell if Your Melon is Ripe



Each melon typically has a light green or bald spot from sitting on top of the soil during growth. This spot will turn pale yellow or cream when the melon is ripe. When a melon is not ripe, its rind will appear glossy. The rind becomes more satin or matte-looking as the fruit ripens. Avoid melons that have shriveled, punctured, or cracked rinds.





When is a North Carolina Melon "Ripe & Ready" to Eat?

Watermelon tops the charts when it comes to the United States' most popular melon, followed by cantaloupe and then honeydew (U.S. Department of Agriculture (USDA) 2023). According to the USDA, more than 307 million pounds of watermelon were produced in 2023 in North Carolina alone.

For all NC melons, summer is the time for harvest. Both watermelon and cantaloupe become ripe and ready for picking in July and are typically available through August, depending on factors like weather conditions and geographical farm locations.

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THE JOY OF FOOD

Watermelon

- High in lycopene, which helps improve cholesterol levels and reduce blood pressure.
- Contains citrulline, an amino acid that reduces blood pressure and helps relax blood vessels to improve blood flow through the body.
- Fiber, vitamins C, B6 and A help reduce insulin resistance and inflammation.





- Low in sodium and high in potassium, which can help with blood pressure management.
- Vitamin C content promotes a strong immune system, high in fiber for healthy digestion.
- High in antioxidants and folate, as well as vitamin K and magnesium, which are essential to healthy bones.

Cantaloupe

- Rich in potassium and fiber, both of which offer heart-healthy benefits.
- Full of antioxidants, which can remove free radicals from the body and help prevent oxidative stress.
- High in beta-carotene, which can help prevent diseases and conditions like cancer and asthma.



So Many Ways to Eat & Enjoy Melon

No matter how you slice it, melons are the perfect choice for a healthy summer snack. Add in the versatility of melon when it comes to recipes and methods of serving, and summertime eating just reached a new level of sweetness! In addition to plain slices and cubes, here are some other ideas for enjoying this delicious summer fruit:

- **Sweet Treats:** Purée your melon, and freeze it for popsicles or slushies.
- Yummy Yogurt: Mix cubed cantaloupe or honeydew with Greek yogurt, granola and nuts.
- Add to Salads: Toss small chunks of melon in with a green or fruit salad.
- **Summer Soup:** Blend melon in the blender to create a refreshing chilled soup.
- Salsa for Chips or Meat: Dice melon for salsa and use it as a dip for chips or a topping for grilled meats. Watermelon combined with chopped mango, red onion, jalapeño, cilantro and lime creates a great salsa.
- Grilled Melon: Slice watermelon or cantaloupe and remove any seeds, then place the slices on the grill for a few minutes per side. Grilled melon slices can make for a tasty side dish or dessert.









Summer Arugula, Chicken & Melon Salad

6 SERVINGS

INGREDIENTS

1/4 cup lemon juice

1 tsp ground sumac

1 tsp honey

1 clove garlic, grated

1/4 tsp salt

¼ cup extra-virgin olive oil

5 ounces baby arugula (8 cups)

2 cups shredded cooked chicken breast (about 12 ounces)

2 cups cantaloupe balls (from 1 small melon)

4 ounces feta cheese, preferably sheep's-milk, crumbled

1 cup fresh mint leaves, torn

1/4 cup pine nuts, toasted

INSTRUCTIONS

Whisk lemon juice, sumac, honey, garlic and salt in a large bowl. Gradually whisk in oil until combined. Add arugula, chicken, melon, feta and mint. Toss to coat with the dressing. Sprinkle with pine nuts and garnish with additional sumac, if desired.

Nutritional Information Per Serving: 302 calories, 19.3 grams fat, 4.6g saturated fat, 72 mg cholesterol, 326mg sodium, 2g fiber, 6.7g sugar, 22g protein



Caprese Melon Skewers

10 SERVINGS

INGREDIENTS

½ cup basil vinaigrette (recipe below)

1 small cantaloupe scooped into balls

1 small honeydew scooped into balls

1 small seedless watermelon scooped into balls

20 fresh water-packed mozzarella balls drained

10 thin slices of prosciutto cut in half, lengthwise

Small wooden skewers (4-6 in.)

Freshly cracked black pepper and sea salt

Basil Vinaigrette

1 shallot, roughly chopped

2 cups tightly packed fresh basil leaves, chopped, stems removed (about 4 ounces)

1 clove garlic, chopped

½ tsp red pepper flakes

1/4 cup olive oil

4 tbsp red wine vinegar

1/4 tsp kosher salt

Place in bowl and whisk until well combined.

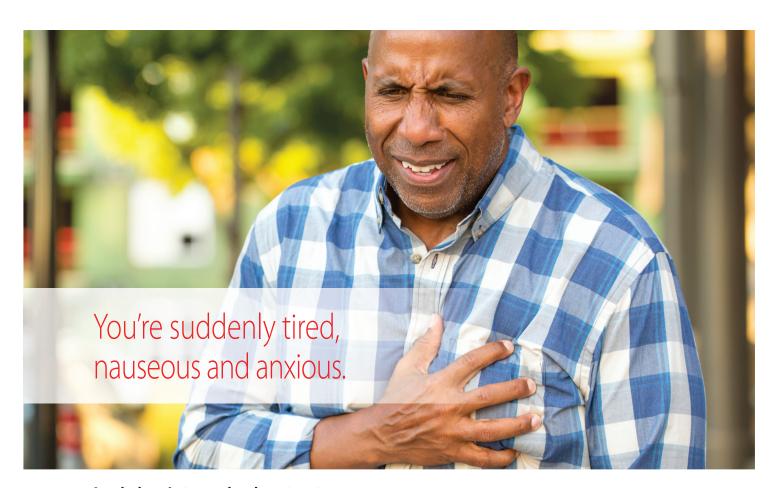
INSTRUCTIONS

Thread ingredients on skewer in any order, ruffle prosciutto between mozzarella balls and melon to fit/stay in place. Arrange skewers on platter. Drizzle with basil vinaigrette and sprinkle with freshly cracked black pepper.

Nutritional Information Per Serving: 395 calories, 22 grams fat, 4g saturated fat, 7 mg cholesterol, 345mg sodium, 3g fiber, 43g sugar, 6g protein

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And that's just the beginning.

You feel like you ate too much. You're more and more tired. More and more anxious. The pressure in your chest continues to intensify, making it difficult to breathe. You may have back pain, jaw pain or pain running down your arms. Fortunately, you have the presence of mind to call 911. You also have the leader in heart and vascular care. Learn more at **wakemed.org**. Because we both know it's your heart.



Your heart. Your choice.