



# Heart to Heart

WakeMed Heart & Vascular News

Summer 2025

Summer Swimming  
for Heart Health

Eating the  
Mediterranean Way

New Tools  
for Evaluating  
Heart Disease  
Risk



# TAKE with...

PRATIK DESAI, MD, FACC  
Interventional Cardiologist

WakeMed Heart & Vascular -  
Cary Cardiology



## Q: What are your favorite hobbies and summer activities?

I love music, reading and traveling, so I'm hoping to spend time doing the things I love most over the summer. I'm currently reading two books, one of which is about meditation, while the other explores AI and information networks. I also love listening to podcasts about history and physics, so I'll fit those in when I can. Lastly, I'm looking forward to traveling with my family to the Azores, an island off the coast of Portugal, where we plan to hike volcanoes and swim with dolphins.

*Dr. Pratik Desai is an interventional cardiologist specializing in the treatment of vascular disease such as peripheral arterial disease. He sees patients in Cary, Benson, Dunn and Fuquay-Varina.*

## Q: Tell us a little bit about yourself.

I was born and raised in India in the western state of Gujarat. I came to the United States after medical school and completed my residency at the Medical College of Virginia in Richmond (now known as VCU). My parents were both physicians, so I grew up with a constant connection to the field of medicine. As a kid, when my parents asked me what I wanted to do when I grew up, I told them I wanted to become a locomotive driver because that felt exciting and I love trains. But, as I got older, I felt drawn to medicine. So by the time I was in high school, I decided I wanted to be a doctor.

## Q: Why did you choose the field of interventional cardiology as your specialty?

During my first year in medical school, I became fascinated by cardiovascular physiology – I was instantly connected with it. And, I found the world of interventional cardiology just amazing – it was evolving so quickly with the placement of stents, new medications and therapies.

## Q: A significant portion of your practice focuses on treating vein and vascular disease – why are you so passionate about this subspecialty area?

For many years, I felt like patients with circulatory problems were being overlooked. They'd complain of leg pain, but wouldn't get the diagnosis or treatments they needed. Fortunately, awareness and treatments for vein and vascular disease evolved quickly, and continue to do so. Today, we have a whole range of dedicated devices and minimally-invasive procedures to treat PAD, venous insufficiency and varicose veins – everything from atherectomy, drug-coated balloon angioplasty, sclerotherapy, vein sealing, venous stenting and more. The field is advancing so quickly – we're even looking at new interventional treatments for hypertension for patients who can't get their blood pressure under control with medication. It's a very rewarding field that's been exciting to explore alongside my patients.

## Q: What do you love most about working with patients?

First of all, I am a social person, so I just enjoy interacting with people overall – but taking care of them is a real privilege. Being a doctor is like problem-solving, so I really enjoy when my patients have a therapeutic response and start feeling better – that's very fulfilling.

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# What's Inside

## IN SIMPLE TERMS

**4-6**

Making Sense of  
Heart Disease Risk

## INNOVATIVE THINKING

**7-8**

Clinical Trial for Aortic Aneurysm  
Innovations in the Treatment of  
Complex Aortic Interventions

## STORIES FROM THE HEART

**9**

From Struggles  
to Strength

## NEW + NOTEWORTHY

**10**

New Outpatient Cardiac CT  
Vascular Surgery Award

## THE JOY OF FOOD

**11-13**

Eating for Heart Health:  
The Mediterranean Way

## LIVING THE GOOD LIFE

**14-15**

Swimming in Benefits  
for Heart Health



## Share Your Story

Has the WakeMed Heart & Vascular team helped you or a loved one? If so, we want to hear from you! Sharing patient stories can help improve awareness and educate our community about the many ways heart disease and cardiovascular problems manifest and affect people differently. If you have a story you'd be willing to share, send it to us at [share@wakemed.org](mailto:share@wakemed.org) and we will contact you directly if additional information is needed. We look forward to hearing from you!

**Sharing Your Story  
Could Save a Life!**



American Heart Association®

**Heart Walk.**

## 2025 Triangle Heart Walk: Let's Get Ready!

Join Team WakeMed for the 2025 Triangle Heart Walk to be held this Fall. The walk will relocate to a new venue this year, but the same camaraderie to raise funds for the American Heart Association's heart disease research will go on. Use this code to go to the WakeMed page on the Triangle Heart Walk's website to learn more about date, time, location, and how you can help support Team WakeMed.



# Making Sense of Heart Disease Risk



## What's My Risk?

WakeMed recently introduced an online Heart Health Assessment tool. It's free, fast and easy to use. Just answer a few questions and we'll provide you with a preliminary assessment of your risk for heart disease.

Scan the code or visit [wakemed.org/manage-your-health](https://wakemed.org/manage-your-health)



From cholesterol particle size and count to lipoprotein levels and familial genetic considerations, the world of understanding your risk for heart disease is changing rapidly. For more than a decade, doctors have largely relied on basic factors, such as demographics, blood pressure, cholesterol levels and family history to determine an individual's risk of heart disease. Yet, personalized medicine has come a long way in the past 10 years – giving physicians and patients access to more information than ever regarding cardiovascular risk. It can be overwhelming to understand it all, and to know when, where, and how to test – and what your results mean. We've connected with our experts to get the scoop on all the latest options available and how these new tools can help patients and clinicians better understand their individual risk for heart disease.

## Standard Risk Calculation

In 2013, the American College of Cardiology released the ASCVD Risk Estimator Plus, a simple calculator that determines a patient's risk for atherosclerotic cardiovascular disease (ASCVD), also known as heart disease. By plugging in a series of data points, including age, sex, race, blood pressure, cholesterol, smoking and family history, among others – physicians are able to estimate a patient's 10-year risk of developing heart disease. In 2023, the American Heart Association introduced a new calculator called PREVENT, which removes race, but includes BMI and variables such as zip code, kidney function and A1c to get a more personalized look at an individual's risk. These tools are used by primary care and cardiology physicians across the world to assess risk and make decisions regarding whether to perform advanced diagnostic testing, suggest lifestyle modifications, initiate medication management and more.

## Emerging Tests & Screenings

While these standard calculators offer a sound baseline of information, we know that many people who suffer from cardiovascular events (such as heart attack or stroke) have no known risk factors – meaning the above-mentioned calculators did not identify these patients as 'at risk' for a cardiovascular event. With this in mind, researchers have examined other biomarkers and data points that may be associated with an increased risk for cardiovascular disease.



## Advanced Lipid Testing

Cholesterol testing continues to evolve as we learn more about heart disease risk factors. While most doctors still use a standard lipid profile, which evaluates total cholesterol, HDL, LDL and triglycerides, there are new tests that look at additional indicators that are proving valuable in determining risk.

- **LDL particle size and count:** LDL is the cholesterol that's been described as 'bad' because it builds up on arterial walls. And, while most experts agree that keeping LDL levels below 100 mg/dL is optimal, there are now additional tests that can measure the number and size of LDL particles – providing even more information about risk. Studies have shown that smaller LDL particles have been linked to a higher risk of heart disease, as well as a higher risk of stroke and death from stroke, according to a 2020 article in PLOS ONE, and a 2021 article in *Lipids in Health and Disease*, respectively. Smaller particles can find their way into smaller arteries and create blockages more easily than larger, fluffier particles. Having more of these smaller particles further increases risk, even for patients with seemingly 'normal' LDL levels.
- **Lipoprotein (a):** Lp(a) is a type of lipoprotein that transports cholesterol in the blood. Having high Lp(a) is an independent risk factor for heart disease that affects about 1 in 5 people. Most people with high Lp(a) have no symptoms and many live a healthy lifestyle with no other cardiovascular risk factors. When Lp(a) levels are too high, these proteins can stick to the walls of your blood vessels, which can cause plaque buildup, narrowed arteries and a reduction in blood flow. It also increases inflammation and blood clotting that can lead to plaque rupture, which can increase the risk for heart attack, stroke or pulmonary embolism.

■ **Who should be tested?** Generally, most physicians are not recommending advanced lipid testing for everyone – largely because this area of lipid research is new and we don't have enough data, yet, and therefore, the standard guidelines for care haven't evolved. Through the years, Lp(a) has become more prominent in most guidelines around the world, but there are no standard recommendations yet.

"If patients come in with a strong family history or other significant risk factors and ask for these tests, I'll order them with the caveat that the results may or may not change our treatment recommendations," explains Dr. John Holly, WakeMed Primary Care. "The real value of this testing is for patients who want to understand their risk and are highly motivated to make lifestyle changes."



JOHN HOLLY, MD  
WakeMed  
Primary Care

■ **Is it covered?** Not all insurance plans cover these tests, so it's important to check with your insurance company. If paying out-of-pocket, fees generally range from \$50-\$100, depending on the lab used.

## Cardiac Calcium CT Scoring

Identifying calcified (hardened) plaque in your coronary arteries can help reveal your risk of heart disease, often before other warning signs appear. Cardiac calcium scoring is a quick and non-invasive screening that uses a computerized tomography (CT) scan that is synced with your heartbeat to look for these calcium deposits. While the test isn't an absolute predictor, it's an excellent prognostic tool. After a 10-minute scan, your doctor will get a risk score that identifies your level of risk for developing heart disease.

■ **Who should be screened?** Screening is recommended for adults age 40 to 70 who have an increased risk of heart disease but have no symptoms. This includes people with a family history of heart disease, those who use tobacco products or vape, are overweight, physically inactive or have a history of high cholesterol, blood pressure or diabetes.

■ **Is it covered?** Insurance does not cover this elective screening, but WakeMed and its imaging partner, Raleigh Radiology, offer the test for a flat fee of \$150. This testing is offered at two imaging centers in Raleigh (Oberlin and Midtown), Clayton and Wake Forest.

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Scan the code to learn  
more about Calcium CT  
Scoring at WakeMed

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TAPAN GODIWALA,  
MD, RPVI  
WakeMed Heart &  
Vascular - Cardiology

“As a cardiologist, calcium CT scoring is very useful in determining whether or not a patient is a good candidate for statin therapy,” explains Dr. Tapan Godiwala, WakeMed Heart & Vascular - Cardiology. “If a patient has a high calcium CT score, I’m much more likely to be aggressive with my treatment plan. This information provides a better picture of overall risk so we can make a more informed clinical decision.”

### Familial Hypercholesterolemia (FH)

This inherited genetic disorder affects how the body recycles LDL. Individuals with FH are born with higher-than-normal levels of LDL cholesterol, which can lead to plaque build-up and an increased risk for heart disease. It affects about 1 in 200 adults, although only 10% are aware they have it. According to the American Heart Association, if left untreated, people with FH have 20 times the risk of developing heart disease.

**Who should be tested?** Since the screening is relatively new, guidance varies. The National Heart, Lung & Blood Institute and American Academy of Pediatrics recommend universal screening for children 9 to 11 years of age. For adults, opinions vary, but individuals with high cholesterol levels, family history of early heart disease or attacks, or physical signs of FH may want to consider testing. According to the CDC, genetic testing for FH can confirm your diagnosis, help you better understand your risks and inform your treatment team.

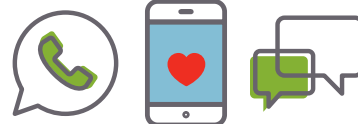
“Understanding genetic markers can help us personalize how we treat our patients,” explains Dr. Raj Fofaria, WakeMed Heart & Vascular - Cardiology. “For those with familial hypercholesterolemia, I’m likely to be far more aggressive with treatment because when genetics are at play, it often requires more medication to reduce risk. Having access to this information can help motivate patients to maintain a healthy lifestyle, and can alert physicians to keep a close watch on risk factors – even for younger patients. It’s another great tool to have in our toolbox.”



RAJ FOFARIA, MD, FACC  
WakeMed Heart &  
Vascular - Cardiology

**Is it covered?** Insurance typically does not cover genetic testing; however, you may be eligible to receive it at no cost through a community research program.

If you have questions about any of these advanced tests or screenings, talk to your physician. They can help you better understand the pros and cons, how the information will be used to guide your care or treatment, and they can place an order or referral, if needed.



### When it comes to heart health, don't skip a beat.

Your health is personal. Your health care should be too. WakeMed's PreciselyYou community health research program offers no-cost genetic screening to our patients, so you can better understand your genetic health risks and take actions toward a healthier future.

Better health care is in your genes.  
Get started with PreciselyYou today.





## WakeMed Hosts Cardiovascular Care Symposium



On April 17, WakeMed hosted a Cardiovascular Care Symposium for cardiology providers to explore the latest technological advances and therapies in cardiovascular medicine. Thank you to our incredible Heart & Vascular experts who presented and are pictured above!

## Clinical Trial Evaluates New Device for the Treatment of Aortic Aneurysm

The TiGER (Terumo Aortic Global Endovascular Registry) study is an observational study evaluating patients who have been treated with the Terumo Aortic RelayPro device for surgical repair or correction of the thoracic aorta. This new device is a thoracic graft stent system that is used in surgeries that treat aortic aneurysm, dissection, or transection, and the device provides an alternative conduit for blood flow, which can prevent further aneurysm growth, rupture and death.

This study is led by Vascular Surgeon Dr. Christopher McQuinn with his surgical colleagues as sub-investigators. Patients will be followed to collect a broad range of clinical data to support the safety and performance of the device.

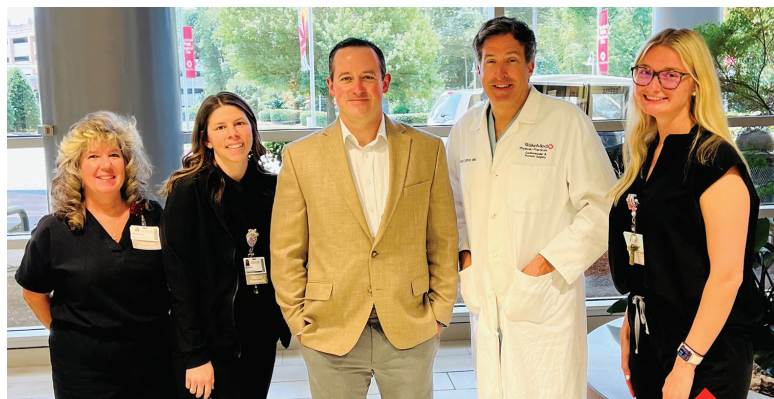


Photo from left to right: Rhonda Norton, Jenna Cassels, Dr. Christopher McQuinn, Dr. Trevor Upham, Haleigh Berst



Congratulations to Judson Williams, MD, MHS, of WakeMed Heart & Vascular - Cardiovascular Surgery, on his induction as a fellow of the American Association for Thoracic Surgery (AATS) — a prestigious honor for cardiothoracic surgeons throughout the world.

## Celebrating Leadership & Innovation in CV Surgery



Dr. Judson Williams

We're proud to celebrate that the WakeMed Heart & Vascular team's article on Enhanced Recovery After Surgery (ERAS) for Cardiac Surgery, published in *The Journal of Thoracic and Cardiovascular Surgery*, remains the publication's #1 most-cited in perioperative care. Originally published in 2018, the article and the team's efforts continue to be a true testament to their innovation, impact and dedication for safe, surgical care for cardiothoracic patients.

**Kudos to Dr. Williams, Gina McConnell, WakeMed ERAS Coordinator (pictured at left with Dr. Williams) and the entire WakeMed Cardiothoracic Surgery team for their continued excellence and leadership in advancing cardiac surgery care.**

## Innovation & Collaboration Improves Outcomes for Complex Aortic Interventions

Comprised of the heart and its four chambers, valves and vessels, the circulatory system is prone to some incredibly complex problems. For this reason, having more experts involved in your care can lead to better outcomes. Fortunately, WakeMed Heart & Vascular takes a collaborative, multidisciplinary approach to caring for patients – particularly those who need a complex aortic intervention.

### What is a Complex Aortic Intervention?

In layman's terms, a complex aortic intervention is a surgical procedure designed to resolve problems occurring in the aorta and its surrounding valves and vessels – such as an aortic aneurysm, dissection or ulcer. These problems often come with no symptoms but can be life-threatening if not addressed quickly.

During the past decade, procedures to address these serious problems have evolved significantly, leading to more minimally invasive options and newer devices that help make surgery safer. Still, these procedures require advanced diagnosis, planning and collaboration to ensure every patient receives the very best plan of care – which is dependent on their unique circumstances.

### Navigating Aortic Complexities with Care

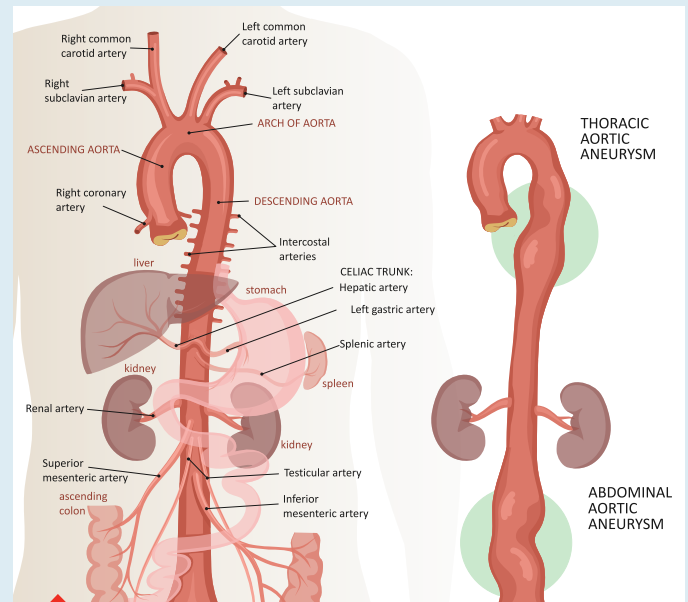
Once a month, WakeMed hosts an internal Aortic Conference for surgeons and caregivers from various disciplines to discuss these complex patient cases. During these meetings, clinical decisions are made through collaboration and open dialogue based on the latest research, guidelines and each patient's unique situation.

Key players in this collaborative effort include Cardiothoracic Surgeon Dr. Judson Williams and Vascular Surgeon



CHRISTOPHER  
McQUINN, MD  
WakeMed  
Heart & Vascular -  
Vascular Surgery

Dr. Christopher McQuinn. "When we collaborate, it's like every patient gets a second or third opinion because we're all weighing in with our individual expertise and perspectives," explains Dr. McQuinn. "We work together to evaluate each patient's situation – to include their diagnosis, health history and unique anatomical considerations – to find the very best approach."



The aorta is the largest blood vessel in the body and carries oxygen-rich blood from the heart through the body. An aortic aneurysm is a bulge in the aortic wall.

Alongside collaboration, innovation is critical for patients with complex aortic conditions because the field is changing rapidly. Our experts are leading the way by offering the latest procedures and new, advanced devices to treat these conditions. For example, WakeMed offers Fenestrated Endovascular Aortic Repair, also known as FEVAR, a newer procedure that allows surgeons to repair the aorta through small incisions while preserving critical blood flow to the arteries leading to kidneys and other organs.

Similarly, Dr. McQuinn was one of the first vascular surgeons in the state to use the new GORE® EXCLUDER® Thoracoabdominal Branch Endoprosthesis (TAMBE). TAMBE gives patients with aortic aneurysms a minimally-invasive option that offers a lower risk of complications, faster recovery time and a shorter hospital stay.

Currently, the team is working together to advance care for patients with problems near the aortic arch. One of the most delicate areas, it is located near the arteries that provide blood flow to the brain. These patients are at greater risk for stroke, making careful collaboration critical.

"Due to the complexity of these cases and the anatomy involved, complex aortic interventions have historically had higher levels of mortality and morbidity than other cardiovascular procedures," explains Dr. Williams. "Through innovation and collaboration, our aim is to improve outcomes and quality of life and decrease surgical complications – and it's absolutely working. WakeMed maintains the very highest quality ratings and outcomes as recognized by the Society of Thoracic Surgeons."





## From Struggles to Strength: Kevin's Journey to Better Heart Health

Kevin Hornaday struggled with heart problems for as long as he could remember. After being born with a Type 2 Mobitz electrical blockage, a cardiac problem rarely seen in children, he grew up seeing a cardiologist regularly. Years later, at age 12, Kevin suffered the heartbreaking loss of his mother, who at the young age of 44 died of a suspected aneurysm after battling her own chronic health condition.

From then on, Kevin was committed to his health. He diligently managed an active lifestyle while respecting the limitations set by his childhood doctors, who advised him against strenuous activity.

Even so, as a young man, he chose a career in law enforcement. By 2017, the stress had aggravated his heart condition, and he needed a pacemaker. His heart health had declined significantly, and his ejection fraction (a measure of heart function) had fallen from the normal range down to 25 percent – which meant his heart was working harder than normal to pump blood throughout his body.

Soon thereafter, Kevin turned to the WakeMed Heart & Vascular team for ongoing care, and he began working with Cardiologist Dr. Marc Silver, who quickly recognized that Kevin was not in good shape. He diagnosed Kevin with heart failure and found an aortic aneurysm that he closely followed. Dr. Silver decided to turn the pacemaker off, which helped improve Kevin's ejection fraction, but his heart rate remained slow.

In January 2024, during a full cardiac workup, Dr. Silver found that the aneurysm had grown, which had stretched and damaged his aortic valve. Dr. Silver warned that without intervention, this damage could lead to severe respiratory issues, possibly requiring Kevin to be on oxygen therapy by age 60. This sobering prospect motivated Kevin to evaluate surgical options, and Dr. Silver referred him to WakeMed Cardiovascular Surgeon Dr. Judson Williams.

"Dr. Williams and I consulted and decided to upgrade Kevin's pacemaker to a biventricular device, which improved things immensely and prepared him to undergo aortic aneurysm repair," explained Dr. Silver.



Kevin Hornaday with his surgeon Dr. Judson Williams.

With the guidance of his WakeMed Heart & Vascular team, Kevin decided to move forward with an aortic valve replacement.

"Kevin's heart health was deteriorating, and his aortic aneurysm was at risk for rupture – which we were concerned about since an aneurysm had taken his mother's life at 44 years old," Dr. Williams recalled. "For this reason, we made the plan to correct everything with a single operation."

Kevin was eager to undergo surgery and begin his road to recovery so he could return to refereeing basketball for his church league. I was excited about having a healthy heart and getting back in the game," he shared.

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**"The cardiac rehab team helped me rebuild my confidence in my heart."**

**- KEVIN HORNADAY**

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"Dr. Williams was incredible – truly the best of the best," Kevin explained. "He has such a great bedside manner and gave me a thorough clinical explanation of what was going on with my heart, and what to expect from my procedure."

On April 18, Kevin underwent a successful, four-hour open heart surgery. He began cardiac rehab soon thereafter.

"The WakeMed Cardiac Rehab team helped me rebuild my confidence in my heart," Kevin shared. "I've joined a couple of online support groups, and have encouraged others undergoing open-heart surgery to take the next step of rehab because it really makes a big difference."

Today, Kevin continues with his heart-healthy habits. Following the guidance he received in cardiac rehab, he's working out nearly every day and is happy to be enjoying life again.

# NEW + NOTEWORTHY

## Cary Hospital Heart & Vascular Unit Now Offers Overnight Care

WakeMed Cary Hospital's Heart & Vascular Unit (HVV) recently expanded its hours to meet the growing needs of cardiovascular patients. Patients can now stay on the HVV overnight, Monday through Thursday. The unit provides care for patients undergoing percutaneous coronary intervention (PCI) or electrophysiology (EP) procedures, who would have previously been transferred to another nursing unit for overnight care. This change reinforces WakeMed Cary Hospital's commitment to growing its cardiology program and enhancing the patient experience.



Heart & Vascular Unit team with Dr. Sunil Desai.

## WakeMed Heart & Vascular Earns Accolades for Exceptional Care

The **Society for Vascular Surgery (SVS)** recognized both the WakeMed Raleigh Campus and Cary Hospital with its highest honor, a 3-star recognition, for participating in the Vascular Quality Initiatives (VQI) Registry Program. The award recognizes centers that demonstrate actions leading to improved patient care, including the completion of long-term reporting, initiation of quality improvement activities, and physician participation in regional quality improvement groups. ★★ ★★ ★★

WakeMed is proud to have received the **American College of Cardiology's NCDR Chest Pain MI Registry Platinum Performance Achievement Award** for 2025. We are proud to be one of only 323 hospitals nationwide



## WakeMed to Open First Dedicated, Outpatient Cardiac CT Scanner

This summer, WakeMed will open its first dedicated outpatient cardiac CT scanner at Raleigh Medical Park, located off of Sunnybrook Road. Cardiac CT is a tool for the diagnosis of coronary artery disease (CAD), particularly in patients experiencing chest pain. The test, known as coronary computed tomography angiography (CCTA), offers several significant advantages over stress testing, used for the past three decades.

### Benefits of Cardiac CT at WakeMed

- Offers a detailed 3D image of the arteries around the heart
- Provides details on the location and extent of the blockages
- Helps identify significant blockages that could be missed with a stress test
- It's noninvasive, unlike cardiac catheterization, which is often performed when a stress test isn't definitive.

"WakeMed is ahead of the curve for the advanced evaluation of chest pain and diagnosis of CAD," explains Dr. Douglas Friedman, WakeMed Heart & Vascular – Cardiology. "We know that coronary CT is emerging as the preferred method of assessing a patient with chest pain, and will allow us to ensure patients receive the right treatment, while avoiding unnecessary invasive procedures."



DOUGLAS FRIEDMAN, MD  
WakeMed Heart &  
Vascular - Cardiology

to receive this distinguished honor for implementing a higher standard of care for heart attack patients. This award confirms that WakeMed has achieved a significant milestone in meeting the rigorous standards of care outlined by the American College of Cardiology/American Heart Association clinical guidelines and recommendations.

***Congratulations to our Heart & Vascular teams for earning these top honors!***





# Eating for Heart Health: the Mediterranean Way

If you want to make a sustainable lifestyle change that can support your long-term heart health, the Mediterranean diet might be right for you.

Don't let the term 'diet' confuse you. It's not about counting calories. It's a healthy way of eating and living based on the traditional eating habits in the countries bordering the Mediterranean Sea. It combines the basics of healthy eating with the traditional cuisine of the Mediterranean region.



TED HODGES,  
MD, FACC  
WakeMed Heart &  
Vascular - Cardiology

"Incorporating this diet doesn't mean giving up flavor or satisfaction," says Dr. Ted Hodges, WakeMed Heart & Vascular - Cardiology. "It's about embracing a way of eating that is rich in taste, variety and tradition."

The Mediterranean diet is widely regarded as one of the healthiest ways to eat among cardiologists, nutrition experts and the American Heart Association.

## Where It Began

The Mediterranean diet gained interest from health professionals in the 1960s after they observed that some Mediterranean countries reported fewer deaths linked to cardiovascular disease than those experienced in the U.S. and northern Europe.

Since then, research studies have demonstrated the diet's many health benefits – particularly as it relates to reducing cardiovascular risk. One study, published in 2018 in the *JAMA Open Network*, followed women adhering to a Mediterranean diet for 12 years and found that they had a 25 percent reduced risk of experiencing cardiovascular events, such as heart attacks and strokes, compared to women whose diets did not resemble a Mediterranean diet. Another large study, known as the PREDIMED Study, involved nearly 7,500 people at high risk for heart disease. This study found the Mediterra-

nean diet reduced the combined risk of stroke, heart attack and death from heart disease. The same study also suggested that people who followed the Mediterranean diet experienced reductions in LDL cholesterol, along with improvements in several other risk factors for heart disease. Finally, the study suggested that following a Mediterranean diet – even without calorie restriction – appeared to prevent the development of type 2 diabetes.

## What Is the Mediterranean Diet?

Primary food sources found in the Mediterranean diet are plant-based, including vegetables, fruits, nuts, seeds, legumes, potatoes, whole grains, breads, herbs, spices and extra virgin olive oil. While there is no set meal plan or definition for the Mediterranean diet, here are common patterns to follow:

- Eat plenty of fruits, vegetables, whole grains and nuts.
- Extra virgin olive oil is preferred as a healthy fat source.
- Consume fish and poultry just 2-3 times a week.
- Limit red meat to once a month.
- Incorporate a moderate amount of dairy — 2 servings per day.
- Replace salt with herbs and spices whenever possible.
- If drinking alcohol, opt for red wine, in moderation.
- Avoid added sugars, processed meat, refined grains, refined oils and other highly processed foods.

Fruits and vegetables, whole grains, legumes and nuts are high in fiber, which can slow digestion and help you to feel full while eating less. They are also rich in vitamins, minerals and antioxidants, which help lower cholesterol and aid in digestive health, blood sugar control and weight management.

Many fish (including salmon, sardines, mackerel, herring and tuna) and plant-based foods (such as flaxseeds, chia seeds, walnuts and soybeans) are rich in omega-3 fats, which reduce inflammation and help reduce the risk of heart disease and stroke. Fish is also a rich source of protein and contains less saturated fat than red meat.



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## Healthy Fats

The Mediterranean diet's focus on unsaturated fat sources offers major benefits for cardiovascular health. Numerous studies have found that replacing saturated fat with healthier fats commonly found in the Mediterranean diet can protect against inflammation, cardiovascular disease and death related to cardiovascular disease.

Olive oil and nuts are the main sources of fat in the Mediterranean diet. Healthy fats can also increase satiety, which helps reduce overeating.

## More Benefits of the Mediterranean Diet

Beyond cardiovascular health, the Mediterranean diet can benefit numerous other aspects of your overall physical health, which can help improve your quality of life and longevity.

- 1 Reduce the risk of cancer
- 2 Improve cognitive function; may prevent dementia
- 3 Supports digestive health
- 4 Blood sugar control
- 5 Supports a healthy weight; reduces risk of obesity
- 6 Reduce the risk of type 2 diabetes



## Tomato, Cucumber & White Bean Salad

**YIELD 4 SERVINGS**

Serving Size:  
Approximately 2 cups

### INGREDIENTS

#### Salad:

- 1 cup halved cherry or grape tomatoes
- ½ cucumber, halved lengthwise and sliced (1 cup)
- 1 15-oz. can low-sodium cannellini beans, rinsed and drained
- 8 cups mixed salad greens

#### Dressing:

- ½ cup packed fresh basil leaves
- ¼ cup extra virgin olive oil
- 3 T. red wine vinegar
- 3 cloves fresh minced garlic
- 1 T. finely chopped shallot
- 2 t. Dijon mustard
- 1 t. honey
- ¼ t. onion powder
- ¼ t. salt
- ¼ t. ground pepper

### INSTRUCTIONS

- 1 Toss the greens, cucumbers, tomatoes and beans in a large bowl.
- 2 Prepare the dressing by placing basil, oil, vinegar, shallot, mustard, honey, onion powder, salt and pepper in a mini food processor or blender. Process until smooth.
- 3 Toss ingredients until well coated in dressing. Serve and enjoy!

**Nutritional Information Per Serving:**  
246 calories, 15g fat, 2g saturated fat,  
22g carbohydrates, 271mg sodium,  
8g fiber, 5g sugar, 8g protein



## The Mediterranean Lifestyle

Lifestyle plays a big role in health and aging, too. While it's a great place to travel, you don't have to travel to an island in Greece to reap the benefits of the Mediterranean way of life. To get the most out of the Mediterranean diet, incorporate these practices:

- Prepare and eat as many meals as possible with family and friends.
- Slow down. Try to sit at a table for 2-3 meals (or more) a week, taking at least 20 minutes to enjoy these meals.
- Cook at home more than you eat out.
- Eat locally sourced products when you can.
- Exercise regularly, ideally with others and by doing an activity you enjoy such as gardening, dancing or yoga.
- Avoid smoking or using any tobacco products.

"If you're looking to make changes to support your heart, the Mediterranean diet is a safe, sustainable and delicious place to start."

TED HODGES, MD, FACC



## Seared Scallops with Lemon Garlic Pasta

YIELD 4 SERVINGS

Serving Size:  
Approximately 2 cups

### INGREDIENTS

16 large sea scallops (about 1 pound)	Salt and pepper to taste
4 cloves of garlic, minced	8 oz. angel hair pasta
2 T. olive oil, divided	2 T. shredded Parmesan cheese
Zest and juice of one lemon	2 T. fresh parsley, chopped

### INSTRUCTIONS

- 1 In a saucepan, bring 3 quarts of water to a boil over high heat. When the water boils, reduce heat to simmer until you're ready to cook the pasta.
- 2 While the water is heating up, add the zest and juice of one lemon into a small saucepan. Add the garlic and 1 tablespoon of the olive oil to the saucepan. Stir until well blended and cook on low heat.
- 3 Heat a large nonstick or grill pan on high heat until very hot. Sprinkle the scallops with salt and pepper and drizzle with 1 tablespoon of olive oil. Toss to coat well. Sear scallops in hot pan, cooking about 4 minutes on each side or until golden brown and firm on the outside and milky white in the middle. (Internal temperature should be 145°F.)
- 4 While scallops are cooking, drop the pasta into boiling water. Cook for 2 minutes and reserve ½ cup of the pasta water. Drain the pasta, return to the pot and toss with warm olive oil mixture and ½ cup pasta water. Stir until pasta is well-coated.
- 5 Divide the pasta equally among the four plates, about 1 cup per plate. Top each with four scallops.
- 6 Garnish each plate with ½ T. shredded Parmesan cheese and ½ T. of fresh parsley. Serve and enjoy!

#### Nutritional Information Per Serving:

376 calories, 9g fat, 2g saturated fat, 48mg cholesterol, 43g carbohydrates, 429mg sodium, 2g fiber, 28g protein

# Swimming in Benefits for Heart Health



TED HODGES, MD, FACC  
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The best exercise you can do for your heart is often the one that you can do consistently. In terms of convenience, walking is hard to beat. It's accessible, low-impact and no special equipment is needed. But when it comes to cardiovascular benefits, swimming may take the gold.

"Swimming is often recommended as a heart-healthy form of exercise, especially for people living with cardiovascular conditions," explains Dr. Ted Hodges, WakeMed Heart & Vascular - Cardiology. "It offers a unique combination of low-impact movement, full-body engagement and aerobic conditioning, making it an excellent option for those looking to improve heart health in a safe and enjoyable way."

If you're dipping your toes into swimming for the first time, don't be intimidated by the Olympic sport you've seen on TV. Swimming can be adapted for any mobility, intensity or age.

## 5 Health Benefits of Swimming

- 1 Cardio Is Key:** Cardiovascular exercise is any activity – including swimming – that raises your heart rate and breathing, increasing your overall blood flow. Cardio activity is a key factor to a healthy heart and is shown to improve cholesterol levels, reduce blood pressure and lower your risk of heart disease.

Multiple studies conducted over the past few decades have found a direct correlation between how much adults swim and the health of their hearts. A study conducted at the University of Texas found that swimmers' systolic blood pressure (the top number) dropped an average of 9 points after they started swimming a few times a week.

- 2 Easy on the Joints:** "One of the most significant advantages of swimming is that it provides cardiovascular benefits without placing stress on the joints," says Dr. Hodges. The buoyancy of water supports the body, making movement easier and more comfortable, while reaping the muscle-building benefits of water resistance.

This makes swimming an excellent exercise for individuals with conditions that cause stiffness or joint pain, such as arthritis or obesity, where weight-bearing activities like walking or jogging can be difficult.



The Health and Wellbeing Benefits of Swimming Report, commissioned by Swim England, found that swimmers have a:

**41%**

lower risk of death due to heart disease or stroke

**28%**

lower risk of early death overall



**3 Supports Weight Management:** Swimming is a full-body workout, because the water adds resistance that requires all of your body to fight against it. Like other forms of cardio, it burns calories and can help support a healthy weight. It's often cited as one of the highest calorie-burning exercises, resulting in an average of 200 to 300 calories burned in just 30 minutes.

**4 Enhances Lung Capacity:** Spending more time underwater may help you breathe more easily above water. Swimming is a great training tool for your lungs. It requires you to control your breathing, which strengthens the lung's capacity and improves endurance. Increased lung capacity allows the heart and lungs to work more efficiently together, leading to better cardiovascular endurance.

**5 Supports Stress Management:** Managing stress plays a key role in heart health and heart attack prevention. Thanks to the soothing effect of water and the meditative nature of rhythmic breathing, swimming can reduce stress along with symptoms of depression and anxiety.

In fact, a study published in *The Journal of Rehabilitation Medicine* found that women who swam regularly for eight months reported a 41 percent improvement in anxiety and a 27 percent improvement in depression.

### More Ways to Move in Water

If swimming laps isn't your thing, try water aerobics or walking. Water aerobic classes are led by a trained instructor, typically in waist-deep to chest-deep water. Often set to music, classes incorporate a variety of exercises walking, jogging, dance and strength training using the water's resistance or pool props (like noodles or weights). Walking in the water is easy on the joints while offering resistance—making it a great option if you're new to working out or recovering from a heart attack, stroke or surgery.

### Swimming with a Heart Condition: Talk to Your Doctor

While the benefits of swimming are clear, individuals managing a heart condition should approach this form of exercise thoughtfully, according to Dr. Hodges. "Before starting a new swimming routine, it's very important to talk with a health care provider. A medical professional can help determine whether swimming is appropriate for your specific condition and may recommend certain precautions or initial assessments, such as a stress test."

## Tips to Get Started

**Find a pool.** Search online for a local aquatic center or YMCA with an indoor pool for year-round access. And look for a lifeguard! The safest way to swim is with trained professionals on hand in case of emergencies, especially for those at risk of a cardiovascular event.

**Start slow. It's not a race.** Don't expect to start out swimming Olympic-laps for a half hour. If you're a beginner, start with five to 10 minutes of lap swimming, focus on your breathing, strokes and kicks.

**Switch up your strokes.** Freestyle, backstroke, butterfly, etc.—mixing up your strokes will work different muscles and keep your workouts feeling fresh. You can also try other movements like treading, walking or aerobics that are just as beneficial.

**Stop if you feel pain.** Listen to your body and get out of the water if you feel any discomfort. "If you feel dizzy, unusually short of breath, overly fatigued or experience chest discomfort while swimming, stop immediately and seek medical attention if needed," says Dr. Hodges. "Building endurance slowly and steadily is far more beneficial—and safer—than pushing too hard, too soon."



### Add Bone-Building Workouts

It's important to note that swimming doesn't offer benefits to bone health. To keep your bones strong, it is important to supplement swimming with weight-bearing exercise, like strength training, walking, dancing, stair climbing or yoga.



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