

# Heart to Heart

WakeMed Heart & Vascular News  
Summer 2023



**Is Volunteering Good for Your Heart?**

**Cool, Crunchy Cucumbers - A Healthy Summer Favorite**

**New Atrial Fibrillation Center Opens**



# TAKE with...

MEGAN SWINK  
Manager, Invasive Cardiology



*Megan C. Swink, MSN, RN, PCCN-K is the manager of the WakeMed Heart Center Invasive Cardiology department, where she manages a team of 65 nurses and cardiovascular specialists. Her role is to oversee the daily operations for the WakeMed Heart Center's seven busy cardiac catheterization lab rooms and four electrophysiology labs. Let's get to know Megan, learn about her team's great work, and hear what she loves most about summer.*

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

I grew up in a small town called Elmira in upstate New York. In 1990, I moved to Cary, NC, and soon thereafter attended East Carolina University where I earned my nursing degree. I joined WakeMed as a new nurse in 1999 and eventually earned my master's degree in nursing in 2018. My husband, Kevin, and I live in Holly Springs now and we have two handsome sons – Jackson (20) and Grant (17) – who are very active in sports, which keeps us busy. My sister, her family, and my mom all live in the area – and spending time with my large extended family brings me great joy.

## Q: How would you describe your team?

My colleagues share a common goal of putting our patients first. Working in a very busy and dynamic area, we thrive on the adrenaline it takes to be successful – and we rely on great teamwork, communication and organizational skills to keep us calm and focused during stressful situations. The work we do also requires an advanced skill set and so my team is constantly learning new procedures and equipment, which impresses me every day. They work closely with our cardiologists, building relationships based on trust and a mutually strong work ethic. It is so rewarding to see this collaboration every day, which leads to better patient outcomes and a great work environment.

## Q: How is WakeMed's Invasive Cardiology program evolving with the field?

One of the things I love most about invasive cardiology is that it's always changing with new technologies, new equipment, and new research opportunities. Meeting the needs of our patients through minimally invasive procedures is exciting and rewarding. We are currently in the process of converting to Siemens labs – which means all new, state-of-the-art equipment is being added to our procedure rooms. Another newer technology we recently added to the lab is the FlowTrier® system for treating pulmonary embolism (covered in our Winter 2023 issue of *Heart to Heart*). These impressive technologies allow us to continually improve outcomes for many patients here at WakeMed.

## Q: What do you love most about working with WakeMed Heart & Vascular patients?

Our patients are the BEST! They put so much trust in us and they are so appreciative of the care we provide particularly in those most emergent cases such as when a patient has suffered a major heart attack or stroke. Dramatically improving outcomes for our patients is so rewarding and we love helping them on the path to better health.

## Q: What are some of your favorite summer activities?

I love grilling and eating fresh vegetables from the garden. My fondest childhood memories include spending my summers on the lakes in New York – and being on the water in my boat is my “happy place.” This summer, my family will be vacationing on Keuka Lake. I am so excited that we all are taking the time to get together!



## Get Ready for the Triangle Heart Walk This Fall

Join Team WakeMed as a walker or make a donation to support. Use the QR code or go to [triangleheartwalk.org](https://triangleheartwalk.org) and search for “WakeMed” under companies.



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## Saroj Neupane, MD, Performs Live Case at Annual Scientific Meeting



Dr. Neupane (left) joins the interventional team for the SCAI Scientific Session in Phoenix.

In May, Dr. Saroj Neupane, WakeMed Heart & Vascular – Cardiology, participated in the Society for Cardiovascular Angiography & Interventions (SCAI) annual Scientific Sessions conference held in Phoenix, Arizona. Dr. Neupane performed a live chronic total occlusion (CTO) case with an interventional cardiology team at Banner University Medical Center while conference attendees viewed the procedure and participated in educational discussions about the case at the Phoenix Convention Center. The interventional team showed intravascular ultrasound guided treatment of a reoccurring blockage within a patient's coronary stent and achieved an excellent outcome. SCAI Scientific Sessions attract interventional cardiologists from around the world to share the latest clinical data, procedural guidance and advanced expertise. Congratulations to Dr. Neupane for his contribution to advancing the field of interventional cardiology!



# Innovative Thinking Openings and Updates

## Cardiac Imaging Uses Artificial Intelligence, Reducing the Need for Invasive Tests

Using a new technology known as HeartFlow™ FFRCT, WakeMed cardiologists can now get a closer look at how blood is flowing through the heart – without having to perform invasive tests, such as a cardiac catheterization and fractional flow reserve (FFR) assessment. This technology uses advanced algorithms to combine CT imaging and artificial intelligence (AI) to build a personalized, digital model of the patient’s coronary arteries. It will help cardiologists make informed decisions to ensure patients are getting the right treatment while avoiding unnecessary procedures. These advanced technologies will enhance how coronary artery disease is diagnosed at WakeMed.



WakeMed CEO Donald Gintzig and Beverly Holloman, CT Technologist, participate in the HeartFlow ribbon-cutting ceremony.

## New EP Lab Opens at WakeMed Cary Hospital



Cary Hospital’s Heart & Vascular Labs added a fourth interventional procedure room, which can be used for electrophysiology services. The new lab features the latest, state-of-the-art equipment to diagnose and treat a wide range of cardiovascular conditions – including electrophysiological problems such as atrial fibrillation and other heart rhythm disorders. Adding this new procedural lab enhances Cary Hospital’s ability to offer more cardiovascular procedures and treatments to serve the growing need for services in southern and western Wake County and beyond.

◀ Congratulations to the Heart & Vascular Labs’ team and **Pavlo Netrebko, MD**, with Cary Cardiology (back row center), who did the first case in the new lab in early June.



## Clinical Research Updates

Our WakeMed Heart & Vascular team is committed to remaining on the forefront of clinical advances in treatments, procedures and medical devices that can help our patients. In partnership with our Clinical Research Institute, many of our physicians are involved in clinical research studies. Here are our latest studies now underway.



Surgeons from WakeMed Cardiovascular & Thoracic Surgery join the Clinical Research Institute team to celebrate the first patient in North Carolina enrolled in the LeAAPS trial.

### Study Researches Preventative Left Atrial Appendage Closure with AtriClip

WakeMed was proud to recently enroll the first patient in the state of North Carolina in the international LeAAPS trial, which is assessing preventative left atrial appendage closure with AtriClip® LAA Exclusion System to reduce ischemic stroke and systemic embolisms in patients who are undergoing open heart surgery and are at risk for these events. Participants will be followed for a minimum of five years to evaluate for incidences of stroke following surgery. This study is led by Dr. Judson Williams, Executive Medical Director, WakeMed Heart & Vascular.

### Researching Early Treatment for Patients Newly Diagnosed with Atrial Fibrillation

Dr. Kevin Manocha with WakeMed Heart & Vascular – Complex Arrhythmia is leading a clinical trial (known as CHANGE AFib) that seeks to determine if early treatment with the antiarrhythmic drug dronedarone (Multaq®), in addition to standard care, can improve outcomes in patients with first-detected atrial fibrillation (AFib). Although several clinical trials have addressed the optimal treatment strategy for patients with symptomatic and recurrent AFib, we do not yet have support on the best early treatment plan for those who have just been diagnosed. CHANGE AFib seeks to fill this gap in evidence and determine whether we can better deliver early treatment to help improve long-term outcomes in patient with first-detected AFib. Patients will be followed for 12 months after enrollment.

## Heart Center Opens Newly Renovated Cardiac Catheterization Lab



Members of the Invasive Cardiology team pose to celebrate the renovation and grand reopening of Cath Lab 6.

As part of WakeMed Heart & Vascular's commitment to delivering the highest quality of care, many of our cardiac catheterization labs are being updated and renovated with the most advanced, state-of-the-art equipment. Most recently, we reopened a newly renovated lab at the WakeMed Raleigh Campus. Cath Lab 6 now features the Siemens Healthineers ARTIS icono, which offers the highest quality images with the lowest possible doses of radiation. This equipment can help WakeMed Heart & Vascular physicians who specialize in coronary artery disease, structural heart disease and arrhythmias enjoy better visualization during the most complex procedures such as CTO, ablations, LAA closures and much more. The continued investment in this new technology is part of our *Value Partnership* with Siemens.

## WakeMed Opens Comprehensive Atrial Fibrillation Center



WakeMed's Atrial Fibrillation Center features a multidisciplinary team, including Ebony White; Amanda Thompson; Susan Rodgers, ACNP-BC; Michelle Deans, PA-C; Barry Nance, RN; and Ashish Patel, MD, MPH, FACC.

WakeMed Heart & Vascular recently established the Atrial Fibrillation Center – bringing together a multidisciplinary team to provide the care and resources needed to help patients understand and manage this condition. It's designed to help patients with AFib improve their overall health, achieve better quality of life, and avoid or reduce hospitalizations caused by AFib.

“Atrial fibrillation is a complex, multifactorial condition that’s previously been managed primarily by an electrophysiologist focused on rhythm control. Yet, we know there are so many factors that can contribute to AFib – including lifestyle factors as well as other conditions such as obesity, heart disease, diabetes and sleep apnea,” explains Dr. Ashish Patel, WakeMed Heart & Vascular – Complex Arrhythmia. “This comprehensive center aims to help patients receive holistic care that will support better overall quality of life for patients with AFib.”

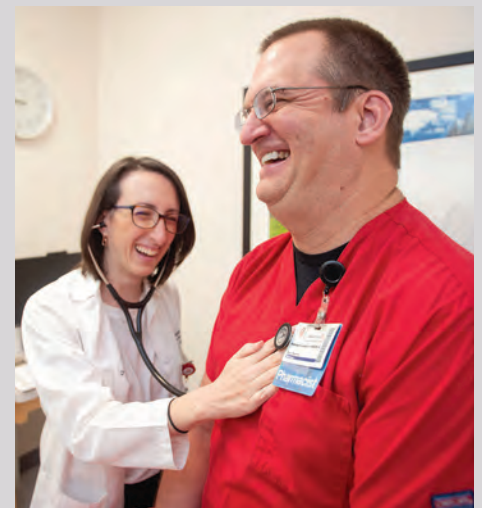
The Atrial Fibrillation Center brings together WakeMed specialists from a wide variety of specialties related to improving symptoms and overall health, including: Cardiology, Electrophysiology, Bariatric Surgery & Medical Weight Loss, Sleep Medicine, Pharmacy and Quit With WakeMed tobacco cessation program.

“More than two million Americans are managing atrial fibrillation and, with an aging population, experts believe that number will increase to more than 12 million by 2030,” explains Amanda Thompson, Executive Director, WakeMed Heart & Vascular. “By bringing all of these services together and developing an individualized, comprehensive plan of care, we can help patients better manage this complex condition and avoid hospitalization.”

Patients treated at the Atrial Fibrillation Center will have access to the latest treatments and interventions available, including participation in clinical trials. The AFib Center team will provide additional education and support to help patients understand atrial fibrillation, how it works and how various lifestyle modifications and interventions can help improve symptoms and quality of life.

## Early Patient Praise for the WakeMed Atrial Fibrillation Center

After being diagnosed with AFib in May 2023, Franklin Landers (who is also a WakeMed pharmacist) experienced multiple serious AFib episodes and complications – landing him in several emergency departments and urgent care centers in just a few weeks. He was referred to WakeMed's Atrial Fibrillation Center where he underwent comprehensive evaluation and treatment, including an ablation performed by Dr. Kevin Manocha.



“My experience at the WakeMed Atrial Fibrillation Center was so wonderful,” said Landers. “I could tell the team was highly experienced in treating AFib, and they provided me with education and guidance about the many treatment options available to me. After undergoing an ablation, I am feeling better and am looking forward to many years of camping, sailing and playing tennis and softball with my daughters. It's reassuring to know the Atrial Fibrillation Center team will be here to help me manage my AFib so I can continue to enjoy a better quality of life.”



# NEW + NOTEWORTHY

## WakeMed Heart & Vascular Adds Additional Cardiovascular & Thoracic Surgery Experts to Cary Office



Cardiovascular and thoracic surgeons Dr. Alden Maier and Dr. Robert Ferguson are now joined by Dr. Bryon Boulton, Dr. Judson Williams and Dr. Trevor Upham, seeing patients in the Cary office for WakeMed Heart & Vascular – Cardiovascular & Thoracic Surgery. These surgery experts bring their service and expertise to patients living in Cary, southern & western Wake County and beyond. Supported by a team of accomplished advanced practice providers, these physicians care for their patients with a quality-driven conviction that delivers exceptional patient outcomes. Their areas of expertise for thoracic conditions include chest, esophageal and lung surgery including minimally-invasive and robotic thoracic surgery and for cardiovascular surgery in coronary artery bypass, structural heart, aortic aneurysm repair, advanced valve repairs and replacement and more.

The office is located at 210 Ashville Avenue, Cary, Suite 210 in the Medical Park of Cary just adjacent to WakeMed Cary Hospital. The phone number is (919) 235-6570.



## WakeMed Raleigh Campus and Cary Hospital Named Top Performing Hospitals for Treatment of Heart Attack Patients

WakeMed recently received the American College of Cardiology's NCDR Chest Pain – MI Registry Platinum Performance Achievement Award for 2023. As two of only 262 hospitals nationwide to receive the honor, WakeMed demonstrated sustained achievement in numerous rigorous clinical measures related to heart attack care for two consecutive years (2021 and 2022), and performed at the highest level. Treatment guidelines include administering aspirin upon arrival and discharge, timely restoration of blood flow to the blocked artery, smoking cessation counseling and cardiac rehabilitation, among others.

“More than 800,000 patients suffer from a heart attack each year, and WakeMed Heart & Vascular sees thousands of these patients during some of the most difficult moments of their lives,” explains Dr. Judson Williams, Executive Medical Director, WakeMed Heart & Vascular. “This award affirms that our exceptional physicians and care teams provide the absolute highest quality, evidence-based care to these patients and their families – and reflects our commitment to pursuing the best possible clinical outcomes, year after year.”

Chest Pain – MI Registry empowers health care provider teams to consistently treat heart attack patients according to the most current, science-based guidelines and establishes a national standard for understanding and improving the quality, safety and outcomes of care provided for patients with coronary artery disease, specifically high-risk heart attack patients.

## The American Heart Association Recognizes WakeMed's Top Quality Heart Failure Program

The WakeMed physicians and staff who care for heart failure 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:

- Proper use of medications and other treatments
- Incorporating evidence-based guidelines for heart failure care
- Providing education on managing heart failure and overall health
- Proper medications, treatment, monitoring and education for patients with Type 2 diabetes



*Congratulations and thank you to our teams for working so hard for our heart failure patients!*

## WakeMed Heart & Vascular Practices & Providers Recognized for Excellence



Each year, Professional Research Consultants (PRC) identifies health care organizations that have gone above and beyond to achieve excellence with the patient experience. Using patient satisfaction survey data collected throughout the year, the PRC Excellence in Healthcare Awards are based on the percentage of patients who rate the Overall Quality of Care/Overall Quality of Doctor Care (for providers) as “excellent.” In 2023, numerous cardiovascular clinical areas and practices, as well as dozens of WakeMed Heart & Vascular providers were recognized for their excellent performance. Congratulations to the following departments and providers for their commitment to delivering an exceptional patient experience.

Dee Darkes, MSN, BSN, RN, NEA-BC, executive director, WakeMed Physician Practices – Heart & Vascular and Chelsea Ngongang, MD, FACC, attend the PRC awards reception.

### Heart & Vascular Departments & Practices Honored With 5-Star Awards

Advanced Heart Failure  
 Cardiology –  
 Cary & Oberlin offices  
 Cardiovascular & Thoracic  
 Surgery – Cary & Raleigh offices  
 Complex Arrhythmia –  
 Raleigh Campus  
 Invasive Cardiology –  
 Raleigh Campus  
 Pediatric Cardiology –  
 Apex, Clayton & North offices

### Heart & Vascular Providers Honored With 5-Star Awards

Bryon Boulton, MD	Charles Harr, MD	Ashish Patel, MD
Richard Daw, MD	Jimmy Locklear, MD	Stuart Russell, MD
Mark Englehardt, MD	Deepa Kabirdas, MD	Marc Silver, MD
Robert Ferguson, DO	John Kelley, MD	Joshua Vega, MD
Tanaya Foster, PA-C	Alden Maier, MD	Matt White, MD
Brian Go, MD	Kevin Manocha, MD	Judson Williams, MD
Tapan Godiwala, MD	Damien Marycz, MD	Frances Wood, MD
Jason Haag, MD	Mary McNeely, PA-C	Kelly Wright, NP
George Hamrick, MD	Chelsea Ngongang, MD	

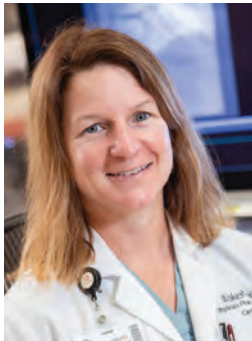




## From WakeMed President to WakeMed Patient – Ray Champ's Story

Ray Champ was the President and CEO of WakeMed from 1983 to 2003 – and under his leadership, the WakeMed Heart Center was established and its legacy for delivering exceptional heart and vascular care here in Wake County began. Little did Mr. Champ know that one day he would find himself a patient of the very Heart Center he proudly unveiled back in 1998.

Nearly 25 years later on August 15, 2022, Mr. Champ was sitting in his living room playing the piano when he suddenly began sweating profusely. He says, “I thought to myself ‘There’s something going on here.’ So, after my practice, I got up from the piano, went into the family room to see my wife, Meredyth, and said to her, ‘You need to call the squad.’”



FRANCES WOOD, MD, FACC  
WakeMed Heart & Vascular

First responders were on the scene within minutes. He was immediately transported to the WakeMed Raleigh Campus Emergency Department. Upon his arrival, WakeMed interventional and structural cardiologist Dr. Frances Wood, was waiting. Mr. Champ was quickly moved into the cardiac catheterization lab where Dr. Wood determined that he had experienced a heart attack resulting from blockages in two descending arteries.

Mr. Champ recalls, “While it wasn’t good, Dr. Wood said, ‘Don’t worry. I’m going to fix it.’ At that point, I knew I was in good hands, and they scheduled me to receive two stents the following morning.”

Following the procedure, Mr. Champ awoke feeling very weak. Dr. Brian Go, a WakeMed interventional cardiologist, visited Mr. Champ and informed him that he still needed two more stents. He recommended waiting a month between procedures to allow for recovery, but even after the second set of stents, Mr. Champ continued to experience fatigue. It was clear he needed to rebuild his strength, which is when Dr. Go recommended WakeMed’s Cardiac Rehab program.

At first, Mr. Champ was hesitant – he was confident he could work out independently at home. Dr. Go was gentle yet insistent, so Mr. Champ relented and joined WakeMed Cardiac Rehab in late October 2022. He spent 13 weeks working with a multidisciplinary team of therapists, exercise specialists and nurses.



Mr. Champ stands with a few members of his Cardiac Rehab team after graduating from the 13-week program.

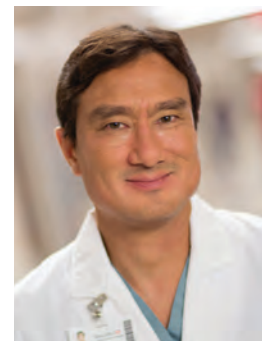
As time progressed, Mr. Champ could see real gains from Cardiac Rehab. He progressed from feeling crushing fatigue to having energy and stamina again like he had before his heart attack.

Mr. Champ says, “I really didn’t want to go to Cardiac Rehab. Despite my hesitancy, I went. By the time I neared the end of the program, I wanted to sign up for another 13-week session, but they knew I was ready to go out on my own. I really have the highest regard for that staff.”

Now, Mr. Champ participates in WakeMed’s Safeway to Fitness program, which is a supervised group exercise program that many Cardiac Rehab graduates transition to. It provides blood pressure and heart rate monitoring while participants exercise – plus the added security of knowing that a health professional is always present.

Today, Mr. Champ continues to walk regularly, strength train and do yard work. He is working toward increasing his stamina enough to enjoy a full 18 holes of golf. He also is committed to a healthy diet. Reflecting on his personal patient experiences at WakeMed, Mr. Champ feels honored and grateful.

“When I first joined WakeMed, there was no Trauma program, Heart Center or Rehab Hospital. I received exceptional care from all three of these service lines in recent months. I’m very proud of WakeMed. I’m so grateful that they have been here for me when I’ve needed them.”



BRIAN GO, MD, FACC  
WakeMed Heart & Vascular

# Arrhythmias & Stroke – A Dangerous Risk



KEVIN MANOCHA, MD  
WakeMed Heart &  
Vascular

The heart is a complex organ made of muscle that is powered by electrical impulses. Every heart comes equipped with what cardiac electrophysiologists (cardiologists who specialize in diagnosing and treating problems with the heart’s electrical system) like to call a ‘biological pacemaker,’ which is the heart’s natural electrical system (also known as the sinus node). It’s designed to send signals in organized contractions to keep blood pumping where it needs to go.

WakeMed Heart & Vascular electrophysiologist Dr. Kevin Manocha explains, “When the heart’s electrical system doesn’t work properly, the impulses may be too fast, too slow or erratic, and that’s known as an arrhythmia. And, while arrhythmias are quite common and can generally be treated, it’s very important to be aware that many are linked to a higher risk of stroke.”

## The Risk of Stroke, Explained

During a normal heartbeat, blood pumps in and out of the heart’s four chambers (atria and ventricles) in a seamless, perfectly timed manner. The right atrium takes blood *from* the veins and pumps it to the right ventricle. The left atrium receives oxygenated blood *from* the lungs and pumps it to the left ventricle. This pattern is orchestrated by the heart’s electrical system.

Because an arrhythmia changes the way your heart beats, the ventricles don’t always have enough time to fill and empty blood with each heartbeat. Blood flow is often stalled or interrupted by the untimely rhythm – which can leave some blood sitting in one of the heart’s chambers. Any time blood isn’t moving, you increase your risk of a blood clot. When a blood clot leaves the heart, it can travel to the small arteries in the brain – leading to an interruption in blood flow that can cause a stroke.

## Which Arrhythmias Lead to Increased Risk of Stroke?

It’s important to note that not all arrhythmias are associated with an increased stroke risk. Here’s a quick overview of the most common types that are:

- **Atrial Fibrillation (AFib)** is a chaotic and often very rapid heart rhythm. It’s the most common type of arrhythmia – and the one most closely linked to stroke. In fact, nearly 15 to 20 percent of all strokes occur in patients with AFib, which is associated with a fivefold increased risk for stroke.
- **Atrial flutter** is a consistent, fast heartbeat that begins in the upper chambers of the heart. Because the contractions are too frequent, the heart chambers can’t move blood as quickly through the upper chambers, which could lead to the formation of blood clots that lead to stroke.



- **Junctional bradycardia** is a slow heart rate that originates in the AV node, a specific area of the heart's electrical system. A 2016 study published in *BMC Neurology* indicated that this type of arrhythmia may increase stroke risk in certain patients.
- **Sick sinus syndrome** refers to several rhythm problems in the SA node of the electrical system. A 2020 research study published in *Stroke* journal concluded that patients with these arrhythmias are at a greater risk of stroke.

## Stroke Prevention for Patients with Arrhythmia

For patients with arrhythmias linked to an increased risk of stroke, there are multiple ways to reduce that risk. While the most appropriate option(s) for each patient should be discussed with a cardiologist and/or electrophysiologist, here is a brief overview of the most common treatments.

**Medication therapy:** For patients with arrhythmia, your cardiologist will carefully evaluate your risk for stroke based on your age and health history. In many cases, patients will be prescribed anticoagulant therapy (blood thinners) to reduce the risk of blood clots.

**Rhythm control:** In all arrhythmia patients, it's important to take steps toward achieving normal rhythm – which can help reduce the risk of stroke. For some patients, this could mean addressing underlying risk factors that could contribute to the arrhythmia such as excessive alcohol use, obesity, sleep apnea and/or diabetes. For some patients, there are a number of procedural options to help achieve and/or maintain a normal rhythm, such as cardioversion and ablation therapy, among others.

**Left atrial appendage closure:** For patients who aren't a good candidate or aren't interested in taking a blood thinner, a left atrial appendage closure (LAAC) procedure can help reduce the risk of stroke. This procedure involves either removing or closing off a small sac in the muscle wall of your left atrium, which is an area of the heart where blood clots often form in patients with atrial fibrillation. There are multiple options for LAAC, including those that use Lariat, Watchman and Amulet devices.

“Being diagnosed with an arrhythmia can be so overwhelming that sometimes, the risk of stroke can be overshadowed by managing the condition,” explains Dr. Manocha. “It's important that patients and their loved ones understand the risk for stroke and become familiar with the signs and symptoms because acting fast can save critical brain tissue.”

Shown below are the many ways a stroke can present. If you or a loved one experiences any of these symptoms, call 9-1-1 and head to the nearest emergency department.

# BEFAST to stop stroke in its tracks

If you think someone is having a stroke, BE FAST and do these simple tests:



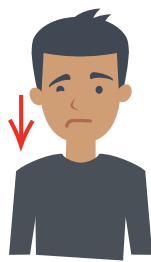
## BALANCE

Is the person losing his/her coordination or balance? Is he/she having trouble walking?



## EYES

Is the person having trouble seeing out of one or both eyes?



## FACE

Ask the person to smile. Does one side of the face droop?



## ARMS

Ask the person to raise both arms. Does one arm drift down?



## SPEECH

Ask the person to repeat a sentence. Are the words slurred? Is he/she having trouble getting words out?



## TIME

If the person shows any of these symptoms, time is important. Call 911 and get to the hospital fast. Brain cells are dying.



## The Benefits of Giving Back – Volunteerism Is Good for You

Taking good care of ourselves is a critical component of longevity, but caring for others is also a rewarding and gratifying way of boosting your physical and mental health, especially as you age.

Research shows that giving back to your community by volunteering two hours or more per week is a great way to stay physically active, socially engaged and mentally stimulated. What's more, studies even show specific links between volunteering and heart health.

In a 2015 study published in *The Gerontologist*, middle-aged volunteers were shown to have lower blood sugar, less abdominal fat, and higher levels of good (HDL) cholesterol than those who didn't take time to give back. Older adults who volunteer also have a lower risk of developing high blood pressure, according to the same study.

"We know that staying socially engaged is good for the mind, body and soul," says Dr. Nerissa Price, Medical Director of WakeMed Physician Practices' Well-Being Initiatives. "Restorative health measures like volunteering can reduce stress, ward off loneliness and provide a sense of purpose, all of which contribute to better mental and physical health markers overall."

Heart health depends on a number of complicated, interconnected factors, but there's a clear symbiotic relationship between cardiovascular and social-emotional health.

"Managing our social-emotional health is just as important as managing a health condition like hypertension or diabetes," Price says. "Volunteering is one tool in your toolbox to improve social-emotional health, boost mood and increase happiness."



NERISSA PRICE, MD  
WakeMed  
Physician Practices





## Here are the top 5 heart-healthy benefits of volunteering:

- 1 It can help reduce stress.**

Stress management is essential to heart health. Chronic stress can increase cortisol and adrenaline levels in your bloodstream, leading to increased heart rate and blood pressure. Stress is also linked to the formation of blood clots, which can cause heart attack or stroke, and chronic inflammation, which weakens the immune system over time. Adding to its physical impacts, stress can also lead to negative emotions that contribute to unhealthy coping behaviors – drinking too much alcohol, overeating, avoiding exercise and putting off medical appointments, for example.
- 2 It fosters a proactive approach to preventative health.**

People who volunteer are more likely to take preventative health measures, according to a 2016 study published in *Social Science & Medicine*. The research found that older adults who volunteer are 47 percent more likely to get cholesterol checks and 30 percent more likely to get an annual flu shot. The flu shot appears to significantly reduce the risk of heart attack and stroke over one year, according to a 2013 study published in the *Journal of the American Medical Association*.
- 3 It keeps you on your feet.**

Many volunteer opportunities, whether you're packing boxes at a food pantry, serving meals at a soup kitchen, or greeting visitors at a senior center, require physical activity. According to a study of participants in Experience Corps, a program that pairs adults over 50 with public school students who need reading help, volunteers tend to walk more steps each day than their peers.
- 4 It fights depression and provides purpose.**

Volunteering can ease symptoms of depression and loneliness, according to a 2020 study in the *American Journal of Preventive Medicine*, but it also offers volunteers a sense of meaning, direction, and a goal to strive for – key positive emotions for longevity. People who feel more happiness, gratitude, and sense of purpose have a lower risk of experiencing a cardiovascular event, including a heart attack or stroke, according to a 2016 report in *Psychosomatic Medicine*.
- 5 Cognitive function**

Lastly, volunteering is linked to improved cognitive function, including thinking, learning, and memory. In fact, some experts believe humans' brains are hardwired for generosity, according to a 2016 study published in *Brain Mapping*.



Mended Hearts

**Mended Hearts** is one of many WakeMed volunteer opportunities. As the largest peer-to-peer support group for heart patients in the nation, Mended Hearts is a support group for patients who have had a cardiac event and their families. In addition to regular meetings, Mended Hearts members, who are approved as WakeMed Volunteers, make visits to patients and their families while they are in the hospital or other medical facilities such as rehabilitation centers. Volunteers offer support in the form of a listening ear and sharing hope for a fulfilling life after a cardiovascular event. If you're interested in joining Mended Hearts, or in becoming a Mended Hearts volunteer, contact Hazel Covington at (919) 350-6888 or [hcovington@wakemed.org](mailto:hcovington@wakemed.org).

## Become a WakeMed Volunteer

We are incredibly fortunate to have more than 1,400 dedicated volunteers as members of the WakeMed family. Together, the Volunteers at WakeMed Raleigh Campus, North Hospital and the Volunteers at Cary Hospital contribute over 205,000 hours of service to patients, families and staff each year. Join our team and share your time and talents as members of the Guest Ambassador, Courtesy Cart, Hospitality Pet, community sewing programs, among many others. To apply or learn more, visit [wakemed.org/volunteer](http://wakemed.org/volunteer).



# Cool, Crunchy Cucumbers – A Heart Healthy Summer Favorite

In 2021, NC farmers produced nearly \$30 million worth of cucumbers – that's 156 million pounds, or enough to outweigh about 400 blue whales.

Pickled, smashed, or tossed on a salad – cucumbers are a versatile and hydrating food to enjoy as part of a heart-healthy diet. Offering a cooling effect and a versatile flavor profile, they're the perfect summer vegetable. The great news is that cucumbers are easy to find in North Carolina, as our state ranks third in the nation for cucumber production. The cool veggies grow on 10,000 acres across 90 of the state's 100 counties.

Though we think of them as vegetables, cucumbers are technically fruits in the Cucurbitaceae family, along with melons and squashes. Like other fruits, they have a very high-water content, and are rich in soluble fiber, vitamin K, and vitamin A. It's important to note that many of the cucumber's nutrients are found in the skin, so eat them unpeeled whenever possible.

## Health Benefits of Cucumbers – Did You Know?

- They are very low in calories (a whole cup of them only amounts to 16 calories), making them a great choice for a heart healthy diet.
- They're high in soluble fiber, which can help lower your cholesterol levels, control blood sugar, and decrease the risk of developing heart disease, according to a 2020 report in *Nutrition*.
- They contain the phytonutrient lignan, which has been linked to decreased risk of heart disease, breast cancer, and osteoporosis, according to a 2019 study published in *Molecules*.
- They have a cooling and antibacterial effect, and as such, can be used as a salve on sunburned skin or on the eyes to decrease puffiness.
- Phytochemicals in the cucumber can help neutralize the bacteria in your mouth that cause bad breath.

Check out our [WakeMed Voices](http://www.wakemedvoices.org) blog for another great recipe at [www.wakemedvoices.org](http://www.wakemedvoices.org)

Simple Persian Salad >

## Types of Cucumbers

There are three basic types of cucumbers:

1. Slicing cucumbers have a hearty green skin and flat, white seeds.
2. Burpless cucumbers are milder in flavor, with delicate skin and smaller seeds. They're sometimes called English or European cucumbers.
3. Pickling cucumbers are the smallest variety – perfect for making pickles.

## Grow Your Own!

Though you'll have no trouble finding cucumbers year-round in North Carolina, they are also easy to grow in your home garden. Plant them after the last frost and they'll grow quickly with minimal effort. Cucumber vines do need plenty of space to spread out (8 to 10 inches between plants is best), but smaller cucumber varieties can do well in a container garden or trained to grow along a trellis or fence. Lastly, because cucumbers have shallow roots and high water content, they are very susceptible to drought conditions and need a good drenching regularly.





## Six Summer Flavor Inspirations for Cucumbers

- 1 Dip It!** Cut cucumbers into spears to dip into hummus or yogurt dip. Or use yogurt and cucumbers to make a simple tzatziki, a flavorful condiment that pairs well with grilled meat, lentils and whole-grain pita bread.
- 2 Salads:** Cucumbers make a crunchy and refreshing addition to any basic green salad, especially when paired with other summer produce, like sweet corn, tomatoes and scallions. Or try bell peppers, olives and feta cheese for a Greek-inspired twist.
- 3 Avoid Sogginess With Seedless:** Seedless cucumbers won't get soggy in pasta or grain salads – you can make a big batch and have a healthy lunch ready to go all week.
- 4 Sandwiches:** Thinly sliced cukes are a delicious addition to any of your favorite sandwiches – they add a satisfying crunch and hold up well in a packed lunch or picnic.
- 5 Get Pickling!** Use fresh cucumbers to make your own pickles. The basic recipe is to bring two parts vinegar, one part water, and one part sugar to a simmer until all the sugar dissolves, let cool, and pour over cucumbers in a jar. But you can add salt, peppercorns, chiles, garlic, coriander seeds, or fresh herbs like dill, depending on your flavor preferences.
- 6 Smash 'Em.** Smashed cucumbers are a perfect complement to your favorite Asian recipes. Just apply pressure to the whole cucumber with the flat side of your knife until it cracks into pieces. This tenderizes the cucumber and opens it up to take on the flavors of a basic Asian dressing – sesame oil, soy sauce, rice vinegar, sugar and salt. You can top it off with sesame seeds and cilantro.



## Salmon Baked with Cucumbers & Dill

### INGREDIENTS

Cooking spray  
2 small cucumbers (peeled, ends trimmed)  
1/2 small red onion (finely chopped)  
4 salmon fillets (about 4 ounces each), rinsed, patted dry  
2 tbsp fresh lemon or lime juice  
1/4 cup chopped, fresh, loosely packed dillweed  
1/4 tsp salt  
1/4 tsp pepper

**4 SERVINGS**  
(SERVING SIZE:  
ONE FILLET)

### INSTRUCTIONS

- 1** Preheat the oven to 400°F. Lightly spray an 11 x 7 x 2-inch baking dish with cooking spray.
- 2** Cut each cucumber in half lengthwise. Scoop out and discard the seeds. Slice the cucumbers into 1/4-inch-thick crescents. Arrange the cucumbers and onion around the edges of the baking dish.
- 3** Place the fish in the center of the dish. Sprinkle the lemon juice over the fish. Sprinkle the remaining ingredients over the fish, cucumbers and onion.
- 4** Bake for 15-20 minutes, or until the fish is cooked to the desired doneness and the vegetables are tender-crisp.

**Nutritional Information Per Serving:** 200 calories, 7 grams fat, 1.5 g saturated fat, 50 mg cholesterol, 165mg sodium, 2g fiber, 3g sugar, 26g protein

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## It was just another Sunday morning, when suddenly ...

... you're tired. Fatigued. You feel like you ate too much. You're nauseous. Becoming 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. Good choice. Learn more about yet another good choice at [wakemed.org](http://wakemed.org). After all, it is your heart.

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