MARYLAND’S
HEALTH MATTERS

COVER STORY:
THE BEAT GOES ON:
A MUSICIAN’S MINIMALLY INVASIVE HEART VALVE REPAIR
PAGE 6

SPOTLIGHT ON DR. BERT O’MALLEY
PAGE 3

ACADEMIC MEDICINE AT WORK
RECEIVING THE GIFT OF LIFE THROUGH THE KIDNEY TRANSPLANT PROGRAM
PAGE 10

WINTER 2021
Spotlight on

DR. BERT O’MALLEY

THE UNIVERSITY OF MARYLAND MEDICAL CENTER MIDTOWN CAMPUS WELCOMES BERT W. O’MALLEY, JR., MD, AS ITS NEW PRESIDENT AND CHIEF EXECUTIVE OFFICER.

IN ADDITION TO his role as head of the organization that includes UMMC’s downtown and midtown campuses, Dr. O’Malley is an otolaryngologist—also called an ear, nose and throat (ENT) doctor and head-and-neck surgeon—and researcher.

Dr. O’Malley’s appointment is a homecoming as he served in multiple leadership positions at the University of Maryland School of Medicine and at UMMC from 1999–2003, including as professor of surgery, chief of otolaryngology and head and neck surgery, and associate director of what is now the University of Maryland Greenebaum Comprehensive Cancer Center (UMGCCC). From 2003 until returning this fall, Dr. O’Malley was a faculty physician and executive at the University of Pennsylvania Health System and Penn Medicine in Philadelphia.

He is an internationally recognized innovator and the co-inventor and developer of a series of novel robotic surgical procedures called transoral robotic surgery (TORS). TORS was a critical development in ENT surgery, allowing surgeons better access to the areas of the throat for the removal of cancer and noncancer lesions, using a minimally invasive robotic approach. This invention provides patients with a faster and easier recovery and improved swallowing results compared to alternative treatments.

Dr. O’Malley also co-founded the first human robotics head and neck surgery program and the first skull base surgery program in the world and was co-principal investigator of the first Institutional Review Board-approved clinical trial for robotic surgery in his specialty.

GET TO KNOW DR. O’MALLEY

WHY DID YOU BECOME A DOCTOR?
My father was a physician-scientist, so I was exposed to physicians—and also physicians who were in academic medicine—at an early age. I was inspired by what they were doing. I was excited about the challenges they were facing and how they were using their abilities, their team and their environment to effect change in the area of health care.

WHAT DO YOU DO OUTSIDE OF WORK?
I enjoy spending time with my family. That is something that is very important to me. I also love to play golf. I am not particularly good at it, though. I also love boating and fishing with my family.

WHAT HAS THE PANDEMIC TAUGHT YOU?
The pandemic has taught me a lot. It has taught me how to be more resilient. It has taught me the power of the team. I have seen an amazing group of people come together in all aspects of health care and battle this virus and provide the needed care to the patient.
Legs

LISTEN TO YOUR

SEND PAD PACKING

THES SIMPLE STEPS CAN HELP YOU PREVENT PERIPHERAL ARTERY DISEASE.

PLAQUE BUILDUP INSIDE of your arteries can cause peripheral artery disease (PAD), which, if left untreated, can lead to serious health conditions. Preventing plaque accumulation in your arteries is one of the most efficient ways to prevent PAD. Making these lifestyle changes will help you maintain good cardiovascular health and prevent PAD. If you suspect you may have PAD, these changes can also help alleviate your symptoms.

1. Butt out. One of the major PAD risk factors is smoking, according to the American Heart Association. Don’t smoke, and if you do, take steps to quit.

2. Cut the fat. An unhealthy diet can increase your cholesterol levels and your PAD risk. Reduce the amount of saturated and trans fats in your diet to help lower your cholesterol.

3. Get moving. Regular physical activity can help lower your blood pressure and cholesterol levels, both of which can increase your risk of PAD if they are too high. Aim for approximately 30 minutes of moderate activity each day.

4. Say goodnight. Regular sleep helps your body repair your heart and blood vessels. Most adults need roughly eight hours per night.

5. Ask for help. Your primary care provider can offer guidance on how to maintain your cardiovascular health.

ARE THEY WARNING YOU ABOUT PERIPHERAL ARTERY DISEASE?

FEBRUARY IS HEART health month, a good time to consider the “vascular” in cardiovascular. Peripheral artery disease (PAD) affects more than 8 million people ages 40 and older in the United States, according to the National Heart, Lung, and Blood Institute. It’s most common in adults ages 65 and older. PAD is caused by plaque buildup on the interior walls of the arteries. The buildup causes the arteries to harden and narrow, reducing blood flow to the body’s extremities, often in the legs. Certain conditions—high blood pressure, high cholesterol, obesity and smoking, for example—can increase your risk for PAD.

WHAT TO LOOK FOR
The most common symptom of PAD is experiencing cramps in your legs while climbing stairs, exercising or walking. These cramps usually go away once you rest. Let your health care provider know if this happens to you, because that cramp could be your muscles telling you they aren’t getting enough blood.

Other symptoms of PAD include:
- Poor toenail growth
- Skin discoloration, such as pale or bluish skin
- Sores or wounds on your toes, feet or legs that are slow to heal

However, some patients may experience no symptoms at all. If you think you may be at risk, ask your provider if a PAD test is right for you.

Need a provider? Visit ummidtown.org/vascular to learn more about the Vascular Center on the UMMC Midtown Campus or call 443-552-2900 to make an appointment with one of our experts.

Need a primary care provider? Visit ummidtown.org/primarycare to learn more about Midtown Health Center or call 410-856-3660 to schedule an appointment.
WHAT Genetic Testing CAN TEACH YOU

Genetic testing can reveal important information about cancer risk. At its heart, genetic testing is about change—searching for inherited mutations, or changes, to genes that are linked to the development of certain cancers. Up to 10% of cancers could have a genetic component, according to the National Cancer Institute.

Using a blood or saliva sample, scientists look for cancer susceptibility variants, which are gene mutations passed from parent to child that have known associations with certain types of cancer. If you have one of these mutations, it doesn’t mean you’re destined to have cancer. Many other factors play a role in cancer development.

Your physician and a genetic counselor can help you decide whether to undergo genetic testing—it’s not necessary for many people—and the latter can determine the best type of genetic test for you. Genetic testing may be a good idea for you if several close family members have had cancer. It may also be recommended if a relative had cancer associated with a specific gene mutation or is known to possess such a mutation.

A genetic counselor can help you understand your results. Depending on what you learn, you may wish to start having certain cancer screenings earlier or more frequently than other people, or take steps to prevent cancer.

MAKING SENSE OF Sciatica

With sciatica, pain may start in your lower back, but it doesn’t stay there.

Few conditions illustrate the far-reaching influence of nerves in your body as well as sciatica. This condition occurs when a problem in the spine compresses the sciatic nerve. This nerve is the largest one in the body. It starts in the lower back and runs down both legs to the feet, controlling several muscles along the way. Symptoms may include sharp pain, tingling or numbness from heel to hip and beyond.

If you’re experiencing sciatica-like symptoms, try taking some time off from the activities that seem to prompt pain—that’s enough for sciatica to improve in most cases. If rest doesn’t solve the problem, talk with your primary care provider, who may refer you to a spine surgeon. The University of Maryland Spine Network can connect you with some of the region’s leading spine surgeons who may be able to help.

Surgery is rarely necessary for sciatica. A surgeon may suggest nonsteroidal anti-inflammatory drugs or a cortisone injection to manage discomfort. Physical therapy may also be recommended, which you can find through the University of Maryland Rehabilitation Network, which offers expert rehabilitative care across the state. A key component of treatment is movement, which is good medicine for sciatica because it helps reduce inflammation.

Back pain is common, but that doesn’t mean you have to put up with it. Learn how the UM Spine Network team can help at umms.org/health-services/spine.

Detect Lung Cancer Early.

Often, people with lung cancer aren’t diagnosed until they have symptoms such as a new, lingering cough, coughing up blood, unintentional weight loss or chest pain. By that point, the cancer is usually advanced.

University of Maryland Medical Center Midtown Campus offers a lung cancer screening program that includes a visit with the nurse practitioner and a CT scan of the chest. During the non-invasive testing, a CT scan uses a series of X-rays to provide detailed images of the lung and identify lesions that might be cancerous. The test takes just a few seconds.

According to the American Lung Association, lung cancer has an 88% survival rate when caught early and treated.

The University of Maryland Center for Pulmonary Health, located on the first floor of UMMC Midtown Campus, is open Monday–Friday, 8am–4:30pm.

To make an appointment, call the University of Maryland Center for Pulmonary Health at 410-328-8138.
Baltimore resident Kevin Carter, 58, never suspected anything was wrong with his heart.

The results of a heart ultrasound (also called an echocardiogram), during a checkup indicated Carter’s mitral valve desperately needed repair.

The heart is a powerful muscle that pumps between 1,500 and 2,000 gallons of blood daily in adults. This one-way circulation is possible thanks to valves, which are thin membranes attached to the heart that open and close. Valves regulate blood flow and cause audible heartbeat sounds. When working properly, a heart beats 100,000 times a day. But when a valve becomes damaged or diseased, the smooth flow of blood is disrupted.

Carter first came to University of Maryland Medical Center Midtown Campus for an annual checkup with his primary care provider. His doctor heard an irregularity in his heart and referred him across the street to the cardiology department. Reyaz Haque, MD, assistant professor of medicine at the University of Maryland School of Medicine and an interventional cardiology specialist at UMMC Midtown Campus, performed an echocardiogram along with various other tests, which revealed that Carter’s mitral valve was not fully operating.

About Mitral Valve Disease

The heart has four valves. The mitral valve is one of the main valves on the left side of the heart between the left atrium and the left ventricle. It has two cusps (leaflets) that open to allow blood flow from the left atrium to the left ventricle. Mitral valve disease occurs when this flow has been disrupted. One possible cause is the valve not closing properly, which can result in blood leaking backwards (regurgitation). In Carter’s case, however, the tissue of the valve had become very stiff, which can block blood flow, causing build up in the heart valves (stenosis).

The most common symptom of mitral valve disease is shortness of breath while physically active or while lying flat. Patients may also notice increased fatigue, swollen ankles or feet, heart palpitations or chest discomfort. Some patients, like Carter, have no symptoms at all or limit activity to feel better.

“I now understand the importance of keeping up with wellness checkups,” Carter said. “If I hadn’t, I really don’t know if I would be standing here today.”
CARE CONNECTIONS
Carter was referred to James Gammie, MD, professor of surgery at the University of Maryland School of Medicine and chief of cardiac surgery at UMMC. Dr. Gammie told Carter he would need to have open heart surgery to repair his mitral valve. Carter decided he needed to think about his decision. A musician for 40 years and the choir director for Greater New Hope Baptist Church in West Baltimore, he found himself playing music for multiple funerals for people in their 50s who died from heart disease. He took this as a sign that he needed the surgery. The day before Valentine’s Day in 2018, he had his mitral valve repair procedure. Because his heart is now healthy again, he can continue to do what he loves to do: play music.

Although open heart surgery sounds scary, mitral valve repair is a minimally invasive surgery and the most commonly repaired of all four heart valves. Heart muscles also function better over the long term with repairs rather than mitral valve replacements. This procedure brings less risk of stroke, bleeding and infection than other repairs. Benefits of mitral valve repair compared to a replacement include a lower risk of stroke, lower risk of infection and improved function of the left ventricle.

“This patient had a very significant problem with his mitral valve, and we were delighted that we could apply the expertise of our team to be able to effect a mitral valve repair, rather than a replacement, and restore his health,” Dr. Gammie said. “As the region’s leading mitral valve center program, our subspecialization and heart-team approach facilitated Mr. Carter’s world-class care.”

HOW WE HELP
UMMC’s board-certified cardiologists and technicians provide a complete range of cardiac services to diagnose and treat heart disease across both campuses.

Some of the treatments, therapies and technology offered on UMMC’s Midtown Campus include:

- Pacemaker placement and follow up
- Angioplasty and stenting
- Electrophysiologic studies
- Cardiac rehabilitation
- Catheter ablation for abnormally rapid heart beats
- Coronary bypass surgery
- Heart transplant surgery
- Heart valve repairs and replacement
- Ventricular assist devices
- Diagnostic heart tests
- Echocardiogram/EKG
- Stress testing
- Holter/event monitor

To schedule an appointment at the Center for Heart Health on the UMMC Midtown Campus, please call 410-225-8452 or go to ummidowntown.org/heart to learn more.
Black Women Are at Increased Risk for Some Serious and Dangerous Conditions, Including COVID-19. In Fact, the Pandemic Has Put a Spotlight on These Health Disparities. Why Does This Happen and What Can Be Done to Level the Playing Field?

Understanding the Risks

Black women are enjoying a longer life expectancy today. However, this life expectancy still remains nearly four years less than their white female peers.

What is causing the discrepancy? According to the National Center for Chronic Disease Prevention and Health Promotion reported by the Centers for Disease Control and Prevention, researchers suspect it’s because younger Black women are more likely to suffer from diseases that affect white women later in age. As you might suspect, living with a disease for many years wears down the body. This slow wearing results in earlier death.

It has been found that Black women are at greater risk for many conditions, including the following:
- Cancer
- Diabetes
- Heart disease
- High blood pressure
- Infant mortality
- Kidney disease
- Mental health disorders
- Stroke

Supporting a Change

Lowering the incidence of these diseases requires addressing the root causes of health disparities. Raising awareness of the overt and implicit bias affecting Black women throughout their lives is needed to address these forces in a meaningful way.

One big step is enhancing provider-patient communication to ensure that everyone speaks the same language. Clear discussions about disease risks, symptoms, diagnosis, treatment and prevention empower every patient to expect—and ask for—equitable care. Involving or enhancing the role of community health workers and educators may help promote trust and communication.

In addition, research indicates that patients have better outcomes when treated by people with a similar appearance. Training and engaging more health care providers of color is an important part of improving care for diverse communities.

With these steps things can change, starting today.

The Heart of the Matter

One of the most pressing health needs facing Black women is heart disease. According to the American Heart Association, by the age of 20, nearly half of all Black women will be living with a type of heart disease.

If you are a Black woman, take heart disease to heart. Talk with your physician today to find out if you’re showing early signs or symptoms of heart disease.

To find a physician who understands the unique health issues facing Black women today, call 410-706-2500 or visit ummidtown.org/womenshealth.
THE UNIVERSITY OF MARYLAND MEDICAL CENTER (UMMC) KIDNEY TRANSPLANT PROGRAM SEAMLESSLY BLENDS COMPASSION, EXPERTISE AND INNOVATION TO PROVIDE A TRANSPLANT SURGEON WITH A KIDNEY OF HER OWN.

SILKE VERENA NIEDERHAUS, MD, clinical associate professor of surgery, made up her mind to become a transplant surgeon at age 11, after receiving her first kidney donation from a nine-month-old deceased donor. Dr. Niederhaus is a member of the UMMC kidney transplant team. This multidisciplinary team is the largest in Maryland, consisting of expert surgeons, nephrologists, nurse coordinators, immunologists and others who specialize in this advanced type of care.

Located in Baltimore, UMMC serves as the academic medical center for the University of Maryland Medical System and is uniquely positioned to provide the advanced, multidisciplinary care that kidney transplant surgery requires.

As part of this experienced team, Dr. Niederhaus provides a unique perspective as someone who has twice undergone transplant surgery herself. Most recently, Dr. Niederhaus received a transplant using the UMMC paired kidney exchange.
“Our paired kidney exchange program activates when a donor is ready to give a kidney, but it isn’t a good match with the recipient,” explained Daniel Maluf, MD, FACS, director of the transplantation program and interim chief of the transplant surgery division at University of Maryland School of Medicine (UM SOM). “This program allows that donor to trade with another donor’s recipient.”

A good kidney donor match involves compatible blood typing, cross matching and antibody testing results that indicate the transplant is likely to be successful. Blood relatives are often good matches, but others may be as well.

“This program requires an advanced level of care and consideration,” Dr. Maluf said. “Not all transplant centers provide this service. It’s a complex procedure that requires a large group of donors to meet many recipients’ needs. UMMC is able to participate in multiple paired kidney exchanges nationally, which helped Dr. Niederhaus meet her match for a living donor.”

Continued on page 12

SCAR-FREE SURGERY

More than 2,000 living donors have changed the lives of patients through the University of Maryland Medical Center (UMMC) Transplant Center, but unless one of them told you, it’s unlikely you would be able to tell they had surgery. UMMC is the first hospital in Maryland and third hospital in the country to use minimally invasive kidney donation procedures that leave almost no scars on the donor’s body.

This innovative surgery is called the single port technique, in which the surgical incision is placed inside the donor’s navel. Also called laparoendoscopic single site (LESS) surgery, it involves expert surgeons’ removing the donor’s kidney through the single incision. Once healed, the incision is concealed within the navel, making the surgery virtually scar-free. In addition to the cosmetic benefits, patients also have fewer limitations in movement after this type of surgery, making it a safe and attractive option for living kidney donors.

While this form of kidney donor surgery is comparatively newer than multiple-port laparoscopic surgeries, it has become the consistent standard of care at UMMC for the past several years. The transplant team conducts workshops to train other surgeons on this groundbreaking technique, and has written a chapter in the latest edition of the surgical textbook Kidney Transplantation explaining this technique’s benefits. As knowledge about LESS surgery increases, UMMC remains one of the first and most experienced hospitals in America to perform it.

THE LIVING DONOR PROGRAM

100,000+ PEOPLE ARE CURRENTLY AWAITING A NEW KIDNEY, AND THE AVERAGE WAIT TIME TO RECEIVE ONE FROM A DECEASED DONOR IS THREE TO FIVE YEARS.

That is why one-third of kidney donations at University of Maryland Medical Center (UMMC) come from living donors.

“If you have a choice between a deceased or living donor, you choose the living donor,” said Silke Verena Niederhaus, MD, clinical associate professor of surgery at UMMC. “A living donor is the only chance you have to get a kidney soon enough to stay off dialysis.”

Dialysis is a procedure needed when normal kidney function is reduced to a fraction of what is required to clean the blood naturally. Dialysis involves multiple treatments that may take hours every week, along with dietary modifications and regular laboratory tests—often challenging but essential steps to prolong life.

WHO CAN BECOME A LIVING DONOR?

Most of our donors are related to the patients receiving their kidney, but not always. As long as your blood type is compatible with the patient’s, it is possible you could become a living donor. Living donors must be at least 18 years old and in good general health. To ensure this, a donor surgeon performs a thorough evaluation of each living donor, as does a transplant nephrologist. Both physicians review physicals and test results to ensure each donor is healthy and will not be put at risk by donation. Donors at UMMC usually have a quick and excellent recovery with a 100% survival rate.

Want to give someone the gift of life? Call 410-328-5408 to speak to our experts about becoming a living donor.
LIVING & GIVING

Kidney donations can be given by deceased or living individuals, but waiting for a deceased kidney donation can take years. Living donations are essential to keeping patients alive and healthy, especially when waiting for a deceased donor could delay their much-needed care. Generally, patients who receive kidneys from living donors have higher long-term survival rates than those who receive kidneys from deceased donors. Living donors also provide patients with more options, as kidneys from unrelated living donors can be just as successful as those from blood relatives.

“Living donor kidneys can last longer and recipients do better, so that’s what we aim for,” said Nadiesda Almanzar Costa, MD, assistant professor of medicine at UM SOM and nephrologist at UMMC. “The exchange program is a great benefit when patients can’t find a donor match on their own.”

Dr. Niederhaus was part of the kidney exchange program, and eventually, her husband became her best match for a donor.

“My husband jokingly said the morning of his donor evaluation, ‘Well, if I have cancer, you’re going to figure this out by this afternoon,’” Dr. Niederhaus said. “Ironically, by lunchtime we found out he had a cancer in his right kidney.”

THE SEARCH CONTINUES

Dr. Niederhaus’ husband received a robotic partial nephrectomy, a delicate minimally invasive surgery that removes the cancerous tumor while preserving the healthy kidney, that has now resulted in his being cancer-free. However, on that fateful day, Dr. Niederhaus was still without a donor.

In the end, Dr. Niederhaus’ kidney exchange included eight different people. Four separate donors provided functioning kidneys to four individual patients, including Dr. Niederhaus, over the course of a week. Felicia Stolusky, who was unable to donate a kidney to her mother, became Dr. Niederhaus’ living donor.

“I performed the surgery with another nephrology specialist,” said Eugene J. Schweitzer, MD, professor of surgery at UM SOM and a transplant surgeon at UMMC. “It was incredible to see the donor kidney immediately functioning and to be a part of another successful kidney donor transplant.”

Dr. Niederhaus was back on her feet the day of her surgery and returned to her office to review patient charts seven days later. To avoid any potential exposure to infection, she waited three months to resume performing surgeries.

“Dr. Niederhaus returned to her regular life right after her surgery,” Dr. Costa said. “She’s such an inspiration. I am in awe of what she can do. She’s a great friend, an excellent physician and an amazing advocate for people with kidney disease.”

To learn more about the UMMC kidney transplant program, call 410-328-5408 or visit umm.edu/transplant.
COVID-19 Immunity: What You Need to Know

To understand immunity, it is important to know how viruses work and how the immune system responds to them.

Viruses are pieces of genetic material surrounded by a protein coating. When viruses enter our bodies, they find a cell and inject it with their genetic material. This allows them to take control of the cell and multiply.

To battle this, the body’s immune system must destroy infected cells. When the body first encounters a new viral infection, it deploys T cells, which find and kill infected cells. If the infection continues, the body then deploys B cells, which create antibodies that can better attack infected cells. Even after the infection has passed, antibodies remain in the body to help the body fight off future infection. This is called natural immunity.

It’s important to get the COVID-19 vaccine even if you’ve recovered from the disease. Natural immunity varies from person to person and for different diseases. It is still unknown how long natural immunity lasts for COVID-19.

Do you still need to wear a mask and social distance after getting the COVID-19 vaccine?

The vaccine will help to keep you from getting sick from the virus, but experts are still learning if the vaccine protects against the spread of the virus. Until we have more answers, it’s important to continue to protect yourself and others through COVID-19 prevention measures.
AMERICAN HEART ASSOCIATION HEART WALK
We are proud to once again support the American Heart Association’s Greater Maryland Heart Walk. Although this year’s walk was virtual, University of Maryland Medical Center Downtown and Midtown Campuses raised nearly $120,000 to fund the mission of the AHA.

TOP DOCS
Congratulations to the 155 doctors who provide care to patients at University of Maryland Medical Center Downtown and Midtown Campuses that have been recognized as “Top Doctors” in the November 2020 issue of *Baltimore* magazine.

The magazine’s roster is notable because it’s based on a nine-month-long survey of thousands of physicians in the Baltimore metro region. Physicians were asked where they would send members of their own family for specialized care. The list encompasses the best of the best doctors in 129 specialties. Only about 6% of all physicians in the area receive the peer support to make this list.

THE TIME TO GIVE BLOOD IS NOW
To help the Red Cross overcome a severe blood shortage, University of Maryland Medical Center will host blood drives in the coming months.

You can sign up today by going to redcrossblood.org and typing in the sponsor code: UMMS.

OUTPATIENT TOWER TOPPING OFF CEREMONY
On October 15, we celebrated the Topping Off Ceremony for the Midtown Outpatient Tower. Traditionally, this ceremony celebrates the last steel beam being placed on a building’s structure. In keeping with that tradition, we placed the last steel beam—decorated with an American flag, a Maryland flag and employee signatures—on the top of the Midtown Outpatient Tower. Only a small group of our executive leaders and board members were on site for the ceremony as a COVID-19 safety precaution.

To learn more about the Midtown Outpatient Tower, which is projected to open in Fall 2021, visit ummidtown.org/outpatienttower.
### Supporting Our Community in a Time of Crisis

**More than 225,000 meals handed out to neighbors in our community**

<table>
<thead>
<tr>
<th>880</th>
<th>Close to 42,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>units of blood collected, saving 2,600 lives</td>
<td>diapers distributed to benefit our youngest citizens</td>
</tr>
</tbody>
</table>

**Presented more than 40 virtual events**

<table>
<thead>
<tr>
<th>2,800</th>
<th>5</th>
<th>Hosted 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 kits handed out, providing hand sanitizer and education to individuals and families</td>
<td>mental health webinars offered to those in need of mental health support, with 1,537 people participating</td>
<td>Community Conversation webinars to answer common questions from 1,500 attendees</td>
</tr>
</tbody>
</table>

**100 new people hired from local communities**

**The right fit—**

**Teamwork—**

**Translation in Action—**

**Employees outfitted with personal protective equipment tailored to each individual**

**People from all areas of our system stepped up to prepare, set up, serve, distribute and care for our communities**

**Offered COVID-19 informational materials in English and Spanish**
The COVID-19 vaccines are authorized by the FDA as safe and effective. Vaccination is the best tool for stopping the virus and helping us keep our communities safe.

Don’t wait. Get the vaccine.

LEARN MORE: umms.org/vaccine