



Preventative Measures to Avoid Peripheral Vascular Disease

Peripheral Arterial Disease (PAD) is a common problem affecting millions of people in the United States. This chronic disease can affect any blood vessel in the body and can lead to progressive closure of the arteries. PAD frequently affects the lower extremities of the body. The arteries can be narrow or closed due to plaque build-up inside the arteries. Risk factors of PAD include high cholesterol, hypertension, smoking, age and family history. Other diseases, such as diabetes, heart and kidney disease, will increase the risk to develop PAD. A vascular surgeon is trained to treat diseases that affect the circulatory system, and patients may be referred to a vascular surgeon if their primary care physician has a suspicion of vascular disease that could require medical or surgical treatment.

The most common cause of PAD is atherosclerosis, a buildup of plaque on the inside of the arterial wall causing it to narrow and reduce blood flow, depriving tissues in the lower extremities of oxygen and nutrients. This deprivation may result in leg pain and difficulty walking. "Vascular disease is a systemic disease – it affects the entire body rather than just one organ or body part," says William Phillips, D.O., of Licking Memorial Vascular Surgery. "Patients often mistake symptoms of PAD for other health issues, such as arthritis or back problems, and may not realize the seriousness of their condition. Habitual use of tobacco, poor diet and physical inactivity can cause symptoms to worsen and increases the risk of complications related to PAD."

PAD is treatable and frequently can be controlled with lifestyle modifications such as smoking cessation, exercise and diet. Smoking is the most preventable cause of PAD. Chemicals in cigarettes cause injury to the cells that line blood vessels, which can lead to narrowing of the blood vessels. Many individuals who quit smoking see improvements in their health immediately. Many people are not able to quit on their first attempt and require additional efforts to successfully quit. Licking Memorial Health Systems offers a free tobacco cessation program – Quit for Your Health. Individuals who wish to quit smoking should discuss the program with a physician or call (220) 564-QUIT (7848).

Engaging in physical activity can reduce the risk of PAD and provides additional health benefits, such as weight loss and a decrease in blood pressure and cholesterol. The American Heart Association (AHA) recommends individuals get 150 minutes per week of moderate to high-intensity exercise, such as walking, jogging, swimming or biking. For patients who have been diagnosed with PAD, a physician may recommend a supervised exercise regimen that includes simple walking and leg exercises to ease leg pain.

A heart-healthy diet is beneficial to preventing vascular disease and other diseases, such as diabetes. The AHA recommends a diet that includes plenty of raw fruits and vegetables, whole grains and legumes as well as high fiber foods, such as oatmeal, kidney beans, Brussels sprouts,

apples and pears, which can help lower low-density lipoprotein (LDL) cholesterol, or "bad" cholesterol. Limiting salt intake and consuming lean meats, fish and low-fat dairy products can aid in the reduction of high blood pressure.

Prescription drugs also can be a preventative measure for PAD. A physician may prescribe an anticoagulant, or blood thinner, to prevent blood clots. Statins are prescribed to reduce cholesterol in the blood, which slows down narrowing of the arteries. Medication for high blood pressure also may be prescribed when diet and exercise alone do not work. Patients with diabetes should monitor and maintain their blood glucose levels, as high levels can cause damage to blood vessels over time, which increases the risk of PAD.

Because PAD is a chronic, systemic disease that can affect blood vessels throughout the body, implementing a comprehensive medical plan with a primary care physician and vascular surgeon is recommended. If PAD progresses despite medical and lifestyle modifications, then surgical and minimally invasive or endovascular surgery techniques can be used to improve lower extremity blood flow.

PAD can be recognized early by a simple pulse examination. Non-invasive arterial testing, performed in the Licking Memorial Hospital Vascular Lab, can be utilized to determine the location and extent of arterial disease in the lower extremities if lower extremity pulses are not felt during routine physical examination.

Surgery Care – Preventative Measures (continued on back)



Patient Story – Charles “Zane” Wachtel

Charles “Zane” Wachtel knew the two-piece stent in his abdominal aorta had an endoleak. The leak was detected several years ago during a yearly follow-up for a surgery performed in 2011 to repair an abdominal aortic aneurysm (AAA). The aorta is the main artery that runs from the heart through the center of the chest and abdomen supplying blood to the body. If the wall of the aorta weakens, it can develop an aneurysm – an enlarged area that may rupture and cause life-threatening bleeding. Endovascular repair, a minimally invasive procedure, can be used to prevent the AAA from rupturing. During the procedure, a surgeon makes an incision to gain access to an artery in the upper part of the leg through which a thin, flexible tube can be threaded to reach the site of the aneurysm. A stent – a tube made of a thin metal mesh covered with a thin polyester fabric – then is sent to the site, opened inside the aorta and fastened in place to allow blood flow.

After the endovascular repair in 2011, Zane had regular check-ups and yearly computerized axial tomography (CAT) scans to examine the stent and ensure it was functioning properly. For several years, Zane experienced no adverse effects from the leak; however, Zane started experiencing severe back pain this past summer. His wife, Carole, took him to the Licking Memorial Hospital (LMH) Emergency Department (ED) where he underwent a number of tests to determine the cause of his pain. The leak

had created a bulge in the abdominal aorta which was causing the back pain.

Vascular surgeon Mark T. DeFrancisco, D.O., of Licking Memorial Vascular Surgery, visited Zane in the Hospital to discuss the findings and the need for another surgery. “I was so pleased to see Dr. DeFrancisco. He had performed the original procedure before he was part of Licking Memorial Health Systems (LMHS), and I knew he had performed hundreds of such repairs,” Zane said. “Having someone with such talent and experience is a true benefit for the community.” Dr. DeFrancisco explained to Zane that he would have to reline the existing two-piece stent to stop the leak.

The minimally invasive procedure was performed the next morning, and Zane returned home 24 hours after the surgery. Zane met with Dr. DeFrancisco one month following the procedure, then again after six months and now will resume yearly follow-ups to check the placed stent. “Everyone at LMH provided amazing care. They left me with no wants, needs or complaints. It is refreshing to see so many people who enjoy their jobs and are willing to take such good care of others,” Zane said. The quick recovery time made it possible for Zane to return to doing what he enjoys – serving the Licking County community in his numerous volunteer positions.

Zane was raised on a farm outside of Ashland, Ohio. He attended The Ohio State University (OSU) and earned his degree in architecture. Before his graduation, Orville Varrasso interviewed Zane at OSU and offered him a position with his firm in Newark. Zane accepted the position, and he and Carole, whom he had met in Ashland, moved to Newark. Years later, He and Garry McAnally purchased the firm. Zane worked on many important projects in Newark including the Library downtown,

the County Administration Building and the jail. “I really enjoyed my business. You experience every emotion except for boredom,” Zane said.

Carole and Zane celebrated 60 years of marriage in September 2020. The couple raised their two children, Katrina and Chuck, in Licking County, and now are watching a third generation grow up in the area. Their granddaughter, Cierra, has three children – Landon, Aubrie and Maci – with her husband, Josh. While Zane enjoys spending time with his family, he is extremely active in the community. He is an ambassador for Lifeline of Ohio sharing the story of his son, Chuck, who was killed in a work accident in 2004. He serves on the Board of Directors at Goodwill, is a member of the Licking County Governmental Preservation Society, the City of Newark Design and Preservation Group, Rotary Club and Maennerchor – a German-American Singing Social Club. He also volunteers at Hospice of Central Ohio, the food pantry and his church, Second Presbyterian Church.

Licking Memorial Vascular Surgery is located at 1371 West Main Street in Newark and treats patients with conditions that affect the circulatory system, primarily diseases of the arteries and veins that affect circulation. Vascular Surgery is staffed by two qualified vascular surgeons, trained to diagnose and treat care for these disorders, excluding the intracranial and coronary arteries. They also perform wound care of the lower extremities. Contact the office at (220) 564-1965 to make an appointment.

Surgery Care – How do we compare?

At Licking Memorial Health Systems (LMHS), we take pride in the care we provide. To monitor the quality of that care, we track specific quality measures and compare to benchmark measures. Then, we publish the information so you can draw your own conclusions regarding your healthcare choices.

- Moderate sedation allows patients to tolerate procedures while maintaining adequate breathing and the ability to respond to stimulation. Most drugs used in moderate sedation can be reversed fully or partially, if necessary. However, careful patient assessment and monitoring reduce the need for reversal agents and improve patient outcomes. Therefore, minimal use of reversal agents is a good indicator of quality in moderate sedation.

	LMH 2017	LMH 2018	LMH 2019	LMH Goal
Use of reversal agent for GI procedures	0.00%	0.00%	0.00%	Less than 0.90%

- The healthcare team at Licking Memorial Hospital (LMH) follows a multiple-step process to prevent wrong-patient, wrong-procedure or wrong-site surgery (e.g., surgery performed on the left foot instead of the right foot). This process includes left or right designation at the time the surgery is scheduled, verification of the site on the day of surgery with the patient and the patient's current medical record, marking the site by the surgeon, and final verification in the operating room. In 2019, 8,215 surgeries were performed at LMH.

	LMH 2017	LMH 2018	LMH 2019	LMH Goal
Wrong-site surgeries	0	0	0	0

- Patients who have open-incision surgery are at elevated risk to develop an infection at the surgical site. LMH utilizes strict infection-prevention strategies for each surgical patient and ensures that the Hospital's Central Sterile staff members receive certification in proper reprocessing sterilization policies for surgical equipment.

	LMH 2017	LMH 2018	LMH 2019	LMH Goal
Central Sterile staff with certification	100%	100%	100%	100%
Surgical site infections	0.00	0.30	0.08	Less than 0.11

- As a quality care indicator, hospitals track 30-day readmission rates for patients who had total hip or total knee replacement surgeries. LMH tracks the rate of patients who had an unplanned readmission back to LMH for any reason (even if the reason was unrelated to the surgery) within 30 days of their Hospital discharge.

	LMH 2017	LMH 2018	LMH 2019	National ⁽¹⁾
30-day readmissions:				
Total hip replacement readmissions	5.00%	3.18%	1.40%	2.49%
Total knee replacement readmissions	2.24%	2.84%	4.63%	2.06%

- Delays in surgical procedures are an inconvenience to patients who may have fasted for hours and often are nervous. The LMH Surgery staff makes every effort to timely begin procedures for the comfort of patients and their families.

	LMH 2017	LMH 2018	LMH 2019	LMH Goal
Surgeries that started on time	88%	89%	90%	Greater than 90%

- Postoperative patients who lie in bed for long periods are at increased risk of developing a blood clot in their lungs (pulmonary embolism) or legs (deep vein thrombosis). To prevent the formation of these dangerous conditions, LMH uses multiple methods to reduce the risk of blood clots, including the use of blood thinning medications and mechanical compression devices. In some cases, despite using these interventions, these blood clots may still occur.

	LMH 2017	LMH 2018	LMH 2019	LMH Goal
Postoperative patients who developed a pulmonary embolism or deep vein thrombosis	0.60%	0.30%	1.75%	0.50%

Data Footnotes: (1) MIDAS CPMS comparative database



Check out our Quality Report Cards online at www.LMHealth.org.

Early identification is the first step to successful treatment, and regular physical exams play an important role in prevention. Patients who establish a relationship with their primary care physician are more satisfied with their care and are better able to manage their conditions. They also may be more likely to share information and concerns with their physician, which can lead to more accurate diagnoses.

Health Tips – Stages of Perioperative Care

Pain relief, problem detection and improving function are several reasons why an individual may require surgery. The surgical process is comprised of multiple stages in which established tasks and procedures are followed strictly to deliver consistent, high-quality care from the time a surgery is ordered until the patient fully recovers. Perioperative care refers to the three stages involved in the surgical process, which include pre-operative, intraoperative and post-operative care.

The pre-operative stage is the preparation and management of the patient before surgery to make sure they are physically and psychologically ready for their procedure. This phase begins when the surgery is ordered and ends when the patient enters the operating room (OR). Medical history, including any previous surgeries and anesthesia background are assessed and a physical exam and laboratory tests may be performed. Fasting also may be required prior to surgery. The patient will receive information from their physician about the surgical procedure and will have the opportunity to ask questions and voice any concerns they might have, which may help to alleviate anxiety.

The intraoperative stage encompasses the time a patient spends in the OR – from their arrival until they are transported to a recovery room. A circulating nurse manages the OR, prepares surgical instruments and supplies and monitors the patient during surgery to ensure their safety and well-being. The anesthesiologist administers the proper anesthesia and monitors the patient's vital signs, such as oxygen level, heart rate and respiration, throughout the operation. A surgical technologist responds to requests of the surgeon by passing instruments and needed supplies and also assists with transporting the patient to the recovery room once the surgery is complete.

The post-operative stage takes place immediately following surgery. During this time, care is focused mainly on monitoring and managing the patient's physical health and aiding in the post-surgical recovery. This may include ensuring hydration, monitoring urination or bowel movements, assisting with mobility, providing appropriate nutrition, managing pain, and preventing infection. Instructions for aftercare and prescriptions for any medication that may be needed are provided to the patient at the time of discharge. A post-operative, follow-up appointment also may be scheduled with the surgeon to ensure incisions are healing properly and to address any concerns the patient may have about recovery.



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Please take a few minutes to read this month's report on **Surgical Care**. You'll soon discover why Licking Memorial Health Systems is measurably different ... for your health!

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