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HEART CARE

Heart Failure Clinic

Heart failure is a serious medical condition where the heart does not efficiently pump blood throughout the body, depriving it of enough oxygen and nutrients to function normally. It is a major health problem that affects nearly 5.7 million people in the United States and is the leading cause of hospitalization in people older than 65 years. Heart failure often develops from an existing medical condition affecting the heart, such as coronary artery disease, high blood pressure, cardiomyopathy or heart attack. For most individuals, heart failure is a long-term condition that can be managed with medication and healthy lifestyle changes. With treatment, many people with heart failure continue to live an enjoyable life.

Symptoms of heart failure can vary depending on the type of heart failure and the seriousness of the condition. One of the first symptoms people may notice is shortness of breath after climbing stairs or other physical activities. In addition, symptoms of left-sided heart failure may include difficulty breathing, cough, fatigue, general weakness, bluish color in fingers and lips, sleepiness, trouble concentrating, and inability to sleep lying flat. People who have right-sided heart failure may have symptoms such as nausea, loss of appetite, pain in the abdomen, swelling in the lower extremities, abdomen and veins in the neck, frequent urination and weight gain.

People with heart failure need to follow a treatment plan for the rest of their life, as complications can arise if the condition is not treated properly. The Licking Memorial Hospital (LMH) Heart Failure Clinic helps patients to manage their condition and experience a higher quality of life. The Clinic is staffed by a team of cardiac nurses and pharmacists, with medical oversight provided by a cardiologist. The team teaches patients how heart failure affects their bodies and how to recognize developing symptoms before they worsen and require hospitalization. The Clinic focuses heavily on patient education that is customized for each patient to meet their specific needs and health goals.

Most patients who come to the Heart Failure Clinic are newly diagnosed with the condition, either from an inpatient or outpatient setting. Patients are seen once a week for the first month after diagnosis. During their visits, they receive a full health assessment from a nurse, and a pharmacist will perform a detailed medication reconciliation for all drugs that the patient is taking. Patients receive education on self-care, such as diet, exercise and medication adherence. The convenient location of the Clinic inside the Hospital allows for labs to be ordered and intervention by a cardiologist, if necessary.

The Clinic encourages patients to bring a support person with them to their appointments in order to help with encouragement and information processing. Patients receive an array of tools to help them manage their condition, including a customized management plan, a pill box to organize their medications, a bathroom scale for monitoring their weight, and a calendar to record

their weight and symptoms. After their first month of visits to the Clinic, patients return for a follow-up visit after three months and then every six months for the rest of their lives

The LMH Heart Failure Clinic utilizes a variety of resources to ensure accessibility of care for patients with heart failure. The Clinic offers telehealth visits and the LMH Ride program for patients who cannot easily get to the Hospital for appointments. A heart failure nurse will attempt to visit patients in the Hospital who are being treated for the condition to provide additional education, and if eligible, will set up an appointment at the Clinic within three to five days after discharge.

A diagnosis of heart failure can be a frightening experience for individuals and their families. The medical team at the LMH Heart Failure Clinic works to ensure that patients have the education, resources and support that they need to live a healthy, fulfilling life. People who are concerned about their heart health should visit their primary healthcare provider to discuss preventive measures and treatment options.





Patient Story – Thomas Walser

Thomas Walser found out in early 2020 that not everyone who experiences a heart attack feels pain in the chest. He had just awakened to begin his day when he felt a tight knot between his shoulder blades. After unsuccessfully attempting to loosen the knot, the pain grew more severe. He then asked his wife to call Emergency Medical Services (EMS) because he was unsure what was causing the pain and felt immobilized. The emergency medical technicians (EMTs), who had quickly arrived at his home, performed a electrocardiogram (EKG). Within minutes, they knew for certain that Thomas was experiencing a heart attack.

Licking Memorial Health Systems (LMHS) has been working with local EMS departments for nearly two decades to equip crews with EKG machines. EKG readings are sent directly to the Licking Memorial Hospital (LMH) Emergency Department where the cardiac response team is alerted and readied to perform lifesaving procedures within minutes of the patient's arrival. For Thomas, the EMTs determined there was a blockage in the left anterior descending artery – a condition often referred to as the 'widowmaker.' This particular type of heart attack can be fatal due to that particular artery's significant role in providing blood to the heart.

"The team of EMTs were very knowledgeable and treated me kindly while I was in transit," Thomas said. "They kept in constant communication with LMH while keeping me informed of the steps being taken to prepare the operating room for an emergency cardiac catheterization." During a cardiac catheterization, a physician guides a flexible tube through a blood vessel to the heart to diagnose

or treat certain heart conditions, such as blockages or irregular heartbeats.

Thomas remained alert throughout the trip from his home in Thornville to LMH, and was aware of his surroundings when LMH staff and the EMTs began moving him to the cathererization laboratory. "I recognized the hallway, and then I just passed out," Thomas said. Cardiology Services Nurse Practitioner Leslie Solomon, APRN-CNP, was assisting in the transport when Thomas' heart stopped beating. She guickly activated a code blue – an emergency response that alerts a team of responders to assist in providing lifesaving care. The team works in complete coordination to revive the patient. In this instance, they had to twice use a defibrillator to administer a controlled electric shock in order to allow restoration of the normal rhythm of Thomas' heart.

After regaining consciousness, Thomas noticed an LMH staff member was shaving his wrist. "I had undergone a catheterization procedure 15 years ago, and the physician had accessed the heart through a vein in my groin," Thomas said. "I was pleased to discover the procedure could be performed by utilizing the radial artery, located in the wrist." Radial access to the arteries in the heart offers quicker recovery time and decreases the risk of bleeding. Hassan Rajjoub, M.D., performed the procedure placing a stent in Thomas' heart to unblock the artery and restore blood flow. Thomas was taken to the Intensive Care Unit to recover.

The discomfort of intubation and being immobile made Thomas determined to regain his strength. "It did not take me long to start walking," Thomas remembered. "The corridors form a natural circle, so I would loop around the ICU. As I walked past a few of the nurses, I overhead one proclaim her disbelief that I was the same patient who had nearly died in the hallway just the day before." Thomas was able to recover quickly and was released from LMH four days after his catheterization.

Dr. Rajjoub recommended that Thomas visit the Licking Memorial Cardiac Pulmonary Rehabilitation Clinic to receive physical therapy. Staff members at the Clinic closely monitor patients as they exercise to ensure no undue stress is placed on the heart. Thomas visited the facility for four weeks until stay-at-home orders were issued due to the COVID-19 pandemic. "The staff members at the Rehabilitation Center were very caring," Thomas shared. "They relate to every patient on a personal level, and are able to interact with all types of personalities. It was a wonderful experience." Even after just a few weeks at the Clinic, Thomas felt well enough to continue exercising on his own at home using a treadmill.

Not long after his heart attack, Thomas returned to his law practice and work as a magistrate with the Perry County Juvenile Court. "I cannot express enough thanks to God, to my wife, Su, my son, my brother, my pastor, his wife and other very close friends who immediately activated prayer chains and comforted my wife at the hospital. They are certainly prayer warriors. I absolutely believe God worked a miracle through Dr. Rajjoub, the EMTs and the staff at LMH, and I also cannot express enough thanks to them," Thomas said. "Dr. Rajjoub told me that he knew my condition was potentially fatal when he saw the EKG readings. I feel blessed to have survived and received care from such knowledgeable and caring professionals. They saved my life."

Thomas continues to work to better his health by walking with his wife of 42 years, Su, and spending time with his six grandchildren. He also enjoys playing golf when he has the opportunity and cheering for The Ohio State Buckeyes. Thomas is an OSU graduate and alumnus of The OSU Marching Band.

Heart 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.

The first step in heart attack treatment is to confirm that the patient is truly experiencing the symptoms of a heart attack. An electrocardiogram (EKG) measures the electrical activity of the heart and is one diagnostic tool used to determine if a heart attack is occurring.

	LMH 2018	LMH 2019	LMH 2020	National Average(1)
Median time from arrival to completion of EKG	5 minutes	3 minutes	3 minutes	8 minutes

In patients having a heart attack, emergency angioplasty restores blood flow to the heart muscle by re-opening blocked or clogged arteries. This is completed by inserting a catheter into the artery that feeds the heart, inflating a balloon and placing a stent inside the artery to keep it open. This procedure can help reduce damage to the heart muscle, and has the best results when performed within 90 minutes after arriving in the Emergency Department (ED). Licking Memorial Hospital (LMH) began performing this procedure in 2008.

Mean time from arrival until	LMH 2018	LMH 2019	LMH 2020	National Goal [©]
balloon angioplasty performed	58 minutes	55 minutes	58 minutes	90 minutes
Time to balloon within 90 minutes	LMH 2018	LMH 2019	LMH 2020	National Goal ^②
	100%	99%	98%	95%

3 Emergency Medical Services (EMS) are often the first to evaluate and treat patients experiencing heart attack symptoms. EMS acquires a baseline EKG to wirelessly transmit to the LMH ED physician for interpretation and early identification, so that the Catheterization Lab team can be alerted quickly. Medical contact to reperfusion refers to the time it takes in minutes from the first medical contact by EMS with a patient experiencing heart attack symptoms, to the opening of the artery to allow blood flow back to the heart muscle.

	LMH 2018	LMH 2019	LMH 2020	National Goal ⁽²⁾
Medical contact to reperfusion	79 minutes	75 minutes	78 minutes	Less than 90 minutes

Licking Memorial Health Professionals (LMHP) physicians also monitor the usage of antiplatelet drugs, such as aspirin or an antithrombotic drug, in patients with coronary artery disease (CAD). The usage of these medications lowers the risk of myocardial infarction (MI) or death in patients with CAD.

	LMHP 2018	LMHP 2019	LMHP 2020	LMHP Goal ⁽³⁾
LMHP CAD patients with aspirin	94%	93%	93%	Greater than 85%
and/or antithrombotic prescribed				

LMHP physicians monitor the cholesterol levels, specifically the LDL (bad cholesterol) levels of their patients with diagnoses of CAD. Elevated LDL cholesterol level is a risk factor for MI, but is reversible through medication, diet and exercise.

	LMHP 2018	LMHP 2019	LMHP 2020	LMHP Goal ⁽³⁾
AD patients with LDL an or equal to 100 mg/dl	67%	78%	84%	Greater than 50%

Data Footnotes: (1) Hospitalcompare.hhs.gov national benchmarks. (2) American Heart Association website (3) Benchmark indicates LMHP Goal.



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When performing certain heart procedures, such as a catheterization, a cardiologist may choose to access the heart through the radial artery, located in the wrist, or the femoral artery, located in the upper thigh. A growing body of evidence supports adoption of transradial artery access to improve acute coronary syndrome—related outcomes, to improve healthcare quality and to reduce cost. Accessing the radial artery requires advanced skill; however, radial access offers quicker recovery time by eliminating the need for the patient to remain flat on their back in bed for several hours after the procedure. Also, the risk of bleeding is decreased. Although radial access is routinely utilized, it may not be an option for some patients due to a risk of spasms or the size of the artery. LMHS' cardiologists possess the advanced skills needed for the procedure and have been

Heart catheterization procedures	LMH 2018 599	LMH 2019 593	LMH 2020 550	LMH Goal
Percentage of radial access	83%	89%	91%	83%

Health Benefits of Micro-workouts

Physical activity is important for a person's overall health. It aids in weight loss or weight management, improves heart health, controls blood sugar levels, and reduces the risk of depression. Current exercise guidelines recommend 150 minutes of moderate intensity exercise per week for adults; however, many people find it difficult to incorporate a workout routine into their busy schedules while trying to balance work, family and daily activities. Research has shown that doing several 10-minute workouts of high intensity throughout the day can have similar health benefits and be as effective as one 30- to 45-minute exercise session.

Micro-workouts are brief periods of exercise that last 10 minutes or less that focus on cardiovascular exercise or weight lifting. Short bursts of intense physical activity increase a person's cardiorespiratory fitness, which can help lower the risk of heart disease and type 2 diabetes. An example of a 10-minute workout includes performing

exercises such as jumping jacks, wall sits, push-ups, burpees and crunches for 30 seconds each with a 10-second rest between each move. Micro-workouts are beneficial for sedentary individuals because the short nature of the exercise helps to break up periods of inactivity throughout the day and are easy to incorporate into a busy schedule. Accomplishing a 10-minute workout helps with motivation, increases self-confidence and makes it easier for people to establish a consistent workout routine.

Most micro-workouts do not require specialized equipment to complete and can be done at home. Using items such as a chair, a wall and a person's own body weight allows for a total body exercise that can develop strength and improve cardiac health. Individuals who are beginning a new exercise routine or have a chronic health condition, such as heart disease, diabetes or high blood pressure, should consult

with their physician to determine if this type of exercise is best for them.





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

The Quality Report Card is a publication of the LMHS Public Relations Department. Please contact the Public Relations Department at (220) 564-1572 to receive future mailings.

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