

Quality Report Card



A Healthy Lifestyle is Key to Preventing Stroke

Stroke is the leading cause of serious, long-term disability and is the fifth-leading cause of death in the United States; however, the majority of stroke incidents are considered preventable. A number of health-related risk factors including high blood pressure, diabetes and high cholesterol can be controlled in order to prevent a stroke. Creating healthy habits, such as exercising regularly and eating healthy will reduce the chances of having a stroke and increase overall wellbeing. Also, choosing to quit smoking and consume alcohol in moderation lowers the risks significantly.

A stroke occurs when the blood supply to part of the brain is blocked or when a blood vessel in the brain bursts. The brain cells are deprived of oxygen and then begin to die. A stroke can cause lasting brain damage, long-term disability or even death. High blood pressure is the number-one cause of stroke. Blood pressure is the force of blood pushing against the walls of the arteries. High blood pressure causes the heart to pump harder and can weaken blood vessels leading to damage in the major organs including the brain. Another medical cause of stroke is high cholesterol. Cholesterol is a fatty substance that can block the arteries, restricting normal blood flow to the brain.

A healthy diet helps to maintain a healthy weight and improve high blood pressure and high cholesterol. Limiting sodium in your diet works to lower blood pressure. Consuming foods high in fiber and low in saturated fats, trans fat and cholesterol is helpful in preventing high cholesterol.

When making food choices, include the following recommendations:

- A variety of vegetables
- Fruits
- Grains, at least half of which are whole grains
- Fat-free or low-fat dairy, including milk, yogurt, cheese, and/or calcium fortified soy beverages
- A variety of protein foods, including seafood, lean meats and poultry, eggs, legumes (beans and peas), and nuts, seeds, and soy products
- Healthy oils such as olive or avocado oil
- Limit saturated fats, trans fats, added sugar and sodium

In addition to making healthy dietary choices, it is recommended that adults participate in 150 minutes of moderate-intensity activity per week which is equivalent to 30 minutes a day for five days a week. The intensity of an activity varies for each individual. To measure exercise intensity, consider the perceived level of exertion experienced during the activity. Moderate-intensity activity requires a moderate amount of effort in which the heart and breathing rate should noticeably increase. Breathing quickens, but conversation is still possible. The effort should lead to the development of a light sweat after about 10 minutes of activity. Examples of moderate-intensity exercise include brisk walking, dancing, water aerobics and bicycling. If there are time

constraints during the day, it is possible to divide the 30 minutes of exercise up into 10-minute segments. Any and all physical activity has health benefits.

Other healthy choices that can greatly reduce the risk of stroke include tobacco cessation and limiting alcohol consumption. Consuming alcohol can raise blood pressure. It is recommended that men should have no more than two drinks per day and only one for women. Cigarette smoking increases the chance of blood clot formation by thickening the blood and increasing the amount of plaque buildup in the arteries. Nicotine is highly addictive making the choice to stop smoking difficult. Many who have quit smoking did so only after several attempts. Licking Memorial Health Systems does offer a Tobacco Cessation Program, Quit for Your Health. Discuss the program with a physician or call (220) 564-QUIT (7848).



Patient Story

Sharon Sinsabaugh



Sharon Sinsabaugh suffered from chronic migraines for over 20 years and began to experience balance issues during the last few years. "One morning last October, my left arm and hand went completely numb. It seemed odd, so I started to talk aloud to myself and realized my speech was extremely slurred," Sharon explained. Fortunately, her husband was home at the time and also recognized the severity of her speech impairment, so they immediately sought care at the Licking Memorial Hospital (LMH) Emergency Department.

Upon her arrival, Sharon was evaluated by a nurse. By this time, her symptoms had begun to subside, but the physician on call ordered a magnetic resonance imaging (MRI) scan to assess blood flow and brain tissue for signs of stiffening, blockage or blood vessel abnormalities. Much to her relief, the tests showed that Sharon had not suffered any permanent damage. She was admitted to the Hospital for further observation.

Sharon had experienced a transient ischemic attack (TIA). Often labeled as "mini-strokes," TIAs can be relatively benign in terms of immediate consequences. But the term "warning stroke" is more appropriate for these temporary episodes, because they can indicate the likelihood of a coming stroke. Like most strokes, TIAs are caused by a clot or blockage in the brain and should be taken very seriously. Blockage is short-term or temporary during a TIA. The symptoms are similar to an ischemic stroke, but TIA symptoms usually last less than 24 hours. When a TIA is over, that particular blockage usually causes no permanent injury to the brain.

Brandon Chandos, M.D., of Licking Memorial Neurology, evaluated Sharon the next morning. Reviewing her history of migraines, he inquired if she had ever had an echocardiogram – a cardiac ultrasound – with a bubble study to detect a heart defect. In cardiac care, ultrasound helps assess the condition of the heart. It uses a device called a transducer to transmit high-frequency sound waves through the body. As the waves bounce (or echo) off structures in the body, the ultrasound transducer translates the sound waves into images on a monitor. An echo can help measure the amount of blood the heart pumps out with each beat. A bubble echocardiogram is the same procedure as an echocardiogram, except an IV placed in the patient's arm injects saline with bubbles into a vein during certain portions of the imaging. This enables the cardiologist to see if there is a tiny hole between the upper chambers of the heart known as a PFO (patent foramen ovale) or ASD (atrial septal defect). The test often is completed when the patient is experiencing neurological symptoms, such as migraines and stroke-like symptoms. Sharon's test showed that she had PFO, which had been the cause of her migraines and TIA episode.

Sharon spent one night in the Hospital. "From the time I arrived to the time I was discharged, everyone was very professional and helpful. I felt like I was in very capable and caring hands with the nurses, technicians and physicians," she shared. "The food was amazing and the culinary staff was courteous, as were the technicians who transported me for testing. I was very impressed."

Sharon commented that Dr. Chandos' intuition regarding her chronic migraines and the connection to the possible heart defect was lifechanging. The PFO defect is actually very common, affecting approximately 25 percent of individuals, although most people are unaware that they have it. Physician research is beginning to reveal more connections between chronic migraines and PFO. Additionally, the defect puts individuals at a 70 percent higher risk for stroke.

After her diagnosis, Sharon reached out to an interventional cardiologist and had the defect repaired in January. She is still recovering, as it takes about six months for the tissue to grow over the hole in the heart muscle. "I am so thankful. I went from averaging 20 migraines a month to almost none. My migraines kept me from work and volunteering and made functioning on a daily basis a struggle," said Sharon. "I had tried multiple medications, botox treatments, basically everything that is available for migraines and nothing consistently prevented the issue without intense side effects," she continued. "It is incredible. Now, all I take is a precautionary low-dose aspirin daily."

Sharon applauds Dr. Chandos for his expertise and excellent bedside manner. "The combination of these qualities is exceptional. He treats every patient like an individual. He does not have a one-size-fits-all method," Sharon noted. "Dr. Chandos really cares, taking the time to understand each patient's symptoms and needs."

She also emphasized that a very positive experience resulted from a frightening situation. "We are very fortunate to have LMH as a resource here in Licking County. It really is a gift to our community," Sharon expressed. "Licking Memorial Health Systems has provided both routine and non-routine care such as blood work, mammography, infusion treatments, and emergency services to my family and to me and we are all appreciative for their care."

A resident of Licking County for 21 years, Sharon lived all over the country growing up. "I love Central Ohio. The people here are the most genuinely warm people I know," Sharon said. She and her husband, Joe, an airline pilot, have a daughter who is currently a junior at the University of Michigan. Sharon enjoys spending time with family, friends and her Shiloh Shepherd dogs at their farm in St. Louisville. She is looking forward to volunteering again, now that her migraines are under control.

Stroke 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.

1. Thrombolytic drugs, sometimes called “clot-busters” often are effective in treating strokes in progress, and may even reverse some of the neurological damage. However, thrombolytic drugs can have dangerous side effects. To lower the risk of complications, thrombolytic drugs can be given only to patients who have arrived at the Emergency Department (ED) quickly enough to have the drugs initiated within three hours of their first symptoms of having a stroke.

	LMH 2016	LMH 2017	LMH 2018	LMH Goal
Eligible stroke patients who received timely thrombolytic drugs in the ED	83%	78%	88%	85%

2. Tissue plasminogen activator (tPA) is a FDA-approved medication for acute ischemic strokes. tPA is given through intravenous therapy (IV) in the arm and works by dissolving clots and improving blood flow to the part of the brain being deprived. tPA can help reduce damage to the brain and the long-term effects of stroke. Lower numbers are preferable.

	LMH 2016	LMH 2017	LMH 2018	LMH Goal
Median time from arrival to administration of tPA	80 Minutes	60 Minutes	79 Minutes	60 Minutes

3. Quick access to brain scan results is critical to physicians when treating a patient with a suspected stroke. Clot-buster medications can be administered, but only for a short period of time after the patient’s stroke symptoms begin, and the medications may not be given until a brain scan is completed. Quick completion of a brain scan upon the patient’s arrival can reduce the amount of time elapsed before these important medicines can be given, which then increases the patient’s chance for improved recovery from a stroke.

	LMH 2016	LMH 2017	LMH 2018	National ⁽¹⁾
Stroke patients in the ED with brain scan results within 45 minutes	74%	88%	86%	73%

4. Ischemic stroke is a type of stroke that results in damage to the brain caused by an interruption or blockage in blood flow. It is the most common type of stroke. A stroke can result in death, so seeking medical attention quickly is vitally important. Licking Memorial Hospital measures the rate of in-hospital death from patients suffering an ischemic stroke. Prompt and comprehensive stroke treatment can reduce the risk of death and long-term complications. Lower percentages are preferable.

	LMH 2016	LMH 2017	LMH 2018	National ⁽²⁾
Ischemic stroke – inpatient mortality rate	0.85%	1.03%	0.00%	2.25%

5. The “incidence rate” is a measure of how often ischemic strokes occur in our community, as compared to national averages. It is measured as the number of patients that are admitted with a stroke, out of every 1,000 admitted patients. Rates higher than average mean that more patients are admitted to the Hospital with strokes than national average, while lower rates indicate fewer strokes occur in the community than national average. Lower numbers are preferable.

	LMH 2016	LMH 2017	LMH 2018	National ⁽³⁾
Incidence rate	20.73	16.42	21.28	18.35

6. Atrial fibrillation, also known as “AFib,” is a condition in which the heart does not pump blood effectively. Patients with AFib are five times more likely to suffer a stroke than the general population, and many patients may be unaware that they have it. Patients with AFib are at risk of having blood clots form inside their heart, which can travel to the brain, causing a stroke. This measure reflects the percentage of patients, diagnosed with stroke who had underlying AFib. Patients with AFib typically are treated with blood thinners to help reduce the likelihood of clots forming inside the heart. Lower percentages are preferable.

	LMH 2016	LMH 2017	LMH 2018	National ⁽⁴⁾
Ischemic stroke – percentage with AFib	25.64%	14.43%	25.00%	24.86%

Stroke Care – How do we compare? (continued on back)



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7. In some cases, after the immediate crisis is stabilized and the patient no longer requires hospital care, ongoing care may be needed depending on the needs of the patient. Patients may be transferred to post-hospital care settings such as inpatient rehabilitation, skilled nursing facilities or home health agencies. The LMH goal is for the patient to return to baseline functioning and be discharged directly home from the Hospital.

	LMH 2016	LMH 2017	LMH 2018	National ⁽³⁾
Ischemic stroke – percent discharged home	41.03%	47.42%	54.55%	50.47%

8. Licking Memorial Health Professionals (LMHP) office-based physicians use evidence-based measures in order to provide excellent, quality care to patients. The American Stroke Association and American Heart Association recommend the use of blood-thinning medication in order to prevent clots from forming and to improve blood flow.

	LMHP 2016	LMHP 2017	LMHP 2018	National ⁽²⁾	LMH Goal
% LMHP coronary artery disease patients seen receiving blood-thinning medication	93%	94%	94%	>80%	>85%

Data Footnotes: (1) Comparative data from www.hospitalcompare.hhs.gov. (2) American Heart Association/American Stroke Association/National Committee for Quality Assurance Heart/Stroke Recognition Program. (3) Comparative data from the Midas Comparative Database.

Health Tips – Avoid the Salt

Avoiding excess salt (sodium) in the diet can assist in lowering blood pressure which in turn lowers the risk of stroke. While salt is found naturally in foods, it is often added during processing and preparation. Large amounts of salt can be found in canned, processed and convenience foods. Sea salt or Himalayan salt contains the same amount of sodium as regular table salt. It is recommended to consume less than 2,300 milligrams of sodium per day. To discover added salt, read the nutrition label on processed or canned foods. The following list contains items known to be high in sodium:

- Smoked, cured, salted or canned meat, fish or poultry including bacon, cold cuts, ham, frankfurters, sausage, sardines, caviar and anchovies
- Frozen breaded meats and dinners, such as burritos and pizza
- Canned entrees, such as ravioli, spam and chili
- Salted nuts
- Beans canned with salt added
- Buttermilk
- Regular and processed cheese, cheese spreads and sauces
- Cottage cheese
- Quick breads, self-rising flour, biscuit, pancake and waffle mixes
- Pizza, croutons and salted crackers
- Prepackaged, processed mixes for potatoes, rice, pasta and stuffing
- Regular canned vegetables and vegetable juices
- Olives, pickles, sauerkraut and other pickled vegetables
- Vegetables made with ham, bacon or salted pork
- Packaged mixes, such as scalloped or au gratin potatoes, frozen hash browns and tater tots
- Commercially prepared pasta and tomato sauces and salsa
- Soy sauce, seasoning salt, other sauces and marinades
- Bottled salad dressings, regular salad dressing with bacon bits
- Salted butter or margarine
- Instant pudding and cake
- Many condiments, such as ketchup and mustard
- Regular canned and dehydrated soup, broth and bouillon
- Cup of noodles and seasoned ramen mixes



Licking Memorial Health Systems

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Please take a few minutes to read this month's report on **Stroke Care**. You'll soon discover why Licking Memorial Health Systems 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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