

Quality Report Card



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STROKE CARE

Controlling Hypertension Reduces Stroke Risk

Stroke is the fifth highest cause of death and a leading cause of disability in the United States. It is a disease that affects the arteries leading to and within the brain. A stroke occurs when a blood vessel to the brain is blocked by a clot or bursts, which restricts blood and oxygen from reaching part of the brain and results in the death of brain cells. Strokes can affect language, memory, vision and movement. Severe strokes may cause paralysis or death.

Hypertension, also known as high blood pressure, is a major risk factor for stroke. High blood pressure is defined as a systolic blood pressure above 140 mmHg and/or a diastolic blood pressure above 90 mmHg. Systolic blood pressure is the maximum pressure in the arteries when the heart contracts. Diastolic blood pressure is the minimum pressure in the arteries between contractions of the heart. Hypertension is known as a silent killer because there are no symptoms. Left uncontrolled, high blood pressure can cause the blood vessels to weaken and become predisposed to damage, which can lead to the blockages and blood clots that can cause a stroke. However, there are many ways to successfully manage high blood pressure.

Weight loss is one of the most effective lifestyle changes for controlling blood pressure. Regular physical activity – 150 minutes of moderate-intensity exercise per week, or 30 minutes per day – can help to lower blood pressure significantly. Aerobic activities may include walking, running, swimming, cycling or dancing. High-intensity interval training, which involves alternating short bursts of intense activity

with periods of lighter activity, and strength training can help reduce blood pressure. Individuals should talk to their physician before starting a new exercise regimen.

A healthy diet is important for managing blood pressure and reducing the risk of heart attack and stroke. The Dietary Approaches to Stop Hypertension (DASH) diet is designed to help improve high blood pressure by encouraging individuals to eat a variety of foods that are low in sodium and high in nutrients, such as potassium, calcium and magnesium. Fruits, vegetables, whole grains and low-fat dairy products are main components of the DASH diet. Fish, poultry and legumes also are included, as well as small amounts of red meat and sweets.

In addition to diet and exercise, avoiding excess salt can aid in lowering blood pressure. The Dietary Guidelines for Americans recommends limiting sodium intake to 2,300 milligrams (mg) a day or less. However, the American Heart Association recommends 1,500 mg a day of sodium as an upper limit for all adults. Individuals should talk with their physician to determine the appropriate amount of sodium in their diet.

Smoking and drinking alcohol are contributing factors of high blood pressure. The nicotine in cigarettes can raise blood pressure and heart rate, narrow arteries, and make blood more likely to clot, which increases the risk of stroke. Drinking too much alcohol can raise blood pressure to unhealthy levels. People with high blood pressure should avoid alcohol or limit their

intake to one glass a day for women and two for men. Licking Memorial Health Systems offers a 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).

Since chronic stress is a key contributor to high blood pressure, finding ways to reduce stress is important for blood pressure health. Relaxation techniques such as yoga, meditation, deep breathing and massage can relieve tense muscles and help the body relax. Making time for enjoyable activities such as taking a walk, cooking or volunteering can reduce stress levels. A sufficient amount of sleep is important for regulating stress. Inadequate or poor-quality sleep can negatively affect mood, mental alertness, energy level and physical health. A common cause of disturbed sleep is obstructive sleep apnea. Symptoms include snoring and daytime sleepiness.

Monitoring blood pressure regularly at home can help indicate if lifestyle changes are working and signify any potential health complications. Blood pressure monitors are widely available and may be covered by insurance for individuals diagnosed with hypertension. Blood pressure monitors also can be purchased without a prescription. If lifestyle changes are not helping to lower blood pressure, it may be time to discuss medications with a physician who can aid in reducing hypertension.

Patient Story – Paula Davis



Paula Davis expected to work until she was 90 years old. She was born and raised in Licking County, married her junior high school sweetheart and raised her own daughter in the area. Despite her size, 4 foot 11 inches, she enjoyed the physical labor of working in a warehouse and was proud to have become a production lead. In 2015, she was enjoying her work and spending as much time as possible with her grandchildren. Then, while traveling to celebrate a granddaughter's birthday, Paula's vehicle was hit by a truck in a horrific traffic accident.

Paula remembers little about the crash or what happened after she was taken to an area hospital for the numerous, serious injuries she sustained throughout her body including to her face and head. After recovering in the hospital for four weeks, Paula was sent to a care facility for rehabilitation for another six weeks. Her grandchildren spent every day with her, and she credits them with motivating her to work hard so that she could return home. Due to the severity of her injuries, she could no longer work.

Upon returning home, Paula did her best to return to a normal routine. However, in addition to her physical injuries, she quickly realized something was amiss with her thought processes. Remembering simple tasks or lists became very difficult, and Paula felt like she was in a fog. In addition to bouts of confusion, Paula found herself crying uncontrollably or suddenly angry for reasons she could not explain. She often lashed out at those around her. Due to the increased risk of stroke and

seizures following traumatic brain injury, it was recommended that Paula visit a neurologist. "The neurologist felt the crying and anger were due to my mental health, and recommended that I visit a therapist," Paula said. "I was diagnosed with bipolar disorder and prescribed medication to help my mood."

Paula did her best to follow the instructions of the psychiatrist; however, the medications and therapy did not alleviate her hyper-sensitivity to emotional stimuli. She would still cry for unknown reasons. "I was most concerned about my anger. I felt lost and frustrated because I had no control over my brain – especially my memory and emotions. I just wanted it to stop," Paula explained. Late in 2017, while looking for physicians closer to her home, Paula learned Licking Memorial Health Professionals employed a neurologist and quickly contacted the office of Brandon J. Chandos, M.D. "At my very first appointment, Dr. Chandos spent time with me and carefully listened to all my concerns," Paula shared. "He was so sincere, and I felt like he really cared about what was happening to me and wanted to help."

After considering Paula's case and symptoms, Dr. Chandos diagnosed her with pseudobulbar affect (PBA). PBA is a neurological condition involving involuntary, sudden and frequent episodes of laughing, crying or angry outbursts. The disorder occurs secondary to other neurological disorders including traumatic brain injury, stroke or multiple sclerosis. The condition generally affects the connection between the frontal lobe, which controls emotions, and the cerebellum and brain stem, where reflexes are mediated. The outburst may be triggered by an appropriate event or stimulus; however, the response typically is out of proportion, such as exaggerated weeping lasting longer than ordinarily would be expected. The effects are uncontrollable and also can occur without an emotional trigger.

PBA often is mistaken for mood disorders including depression and bipolar disorder. Those who experience PBA may feel frustrated, embarrassed, worried and confused by their own behavior. The disorder has a substantial impact on the lives of those experiencing the condition and on family members and caregivers. It creates an additional burden for patients who already have a serious underlying neurologic condition.

Once diagnosed, however, pseudobulbar affect can be managed with medication. Dr. Chandos prescribed Nuedexta, the only medication approved by the Food and Drug Administration that is designed to specifically treat PBA. "I started taking the medication and it was like a miracle. I felt like myself again and in control," Paula happily explained. "Dr. Chandos saved my life." With more control of her emotions, Paula has been doing all she can to help others. She has been spending as much time as possible with her grandchildren, without fear of uncontrolled angry outbursts.

Neurology is a specialty that focuses on medical problems affecting the nervous system. Specialized training and experience allow the physicians at Licking Memorial Neurology to treat acute chronic illnesses, including cerebrovascular disease, epilepsy, dementia, headache, tremor, multiple sclerosis and myasthenia gravis. A wide range of services, both Hospital-based and within the office, are available. Recently, DeRen Huang, M.D., joined Dr. Chandos at the Licking Memorial Neurology office located at 150 McMillen Drive in Newark. To make an appointment, call (220) 564-7985.

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 2017	LMH 2018	LMH 2019	LMH Goal
Eligible stroke patients who received timely thrombolytic drugs in the ED	91.3%	77.8%	87.5%	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 2017	LMH 2018	LMH 2019	LMH Goal
Median time from arrival to administration of tPA	60 Minutes	79 Minutes	68 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 2017	LMH 2018	LMH 2019	National ⁽¹⁾
Stroke patients in the ED with brain scan results within 45 minutes	88%	86%	84%	72%

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 (LMH) 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 2017	LMH 2018	LMH 2019	National ⁽³⁾
Ischemic stroke – inpatient mortality rate	1.03%	0.00%	0.00%	2.26%

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 who 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 2017	LMH 2018	LMH 2019	National ⁽³⁾
Incidence rate	16.42	21.28	17.96	18.40

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 2017	LMH 2018	LMH 2019	National ⁽³⁾
Ischemic stroke – percentage with AFib	14.43%	25.00%	19.09%	24.78%

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 2017	LMH 2018	LMH 2019	National ⁽³⁾
Ischemic stroke – percent discharged home	47.42%	54.55%	34.27%	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 2017	LMHP 2018	LMHP 2019	National ⁽²⁾	LMH Goal
% LMHP coronary artery disease patients seen receiving blood-thinning medication	94%	94%	93%	>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 – Risk Factors You Can Control

Stroke is the fifth leading cause of death and a leading cause of disability for Americans. Risk factors, such as age and family history are out of a person’s control. However, there are a number of stroke risk factors that individuals can control, such as high blood pressure, diet and physical activity. The following methods can help people lower the risk for stroke.

Lower blood pressure – Hypertension, or high blood pressure, is the leading controllable risk factor for strokes. Reducing salt intake, avoiding food high in cholesterol and increasing physical activity may help to lower blood pressure. If natural remedies do not work, individuals may consult their physician about taking medication for high blood pressure.

Reduce weight – Obesity is linked to many health conditions including high blood pressure, which can increase risk of stroke. Increasing physical activity and decreasing the daily caloric intake may help individuals achieve a healthy weight. The U.S. Department of Health and Human Services recommends that adults perform at least 150 to 300 minutes of moderate-intensity exercise each week.

Treat existing health conditions – Diabetes is an independent risk factor of stroke and is often linked to obesity, high blood pressure and high cholesterol, which increase the risk of stroke. An individual with diabetes must control their blood sugar level and maintain a healthy weight. People with atrial fibrillation (A-Fib) are at a higher risk for stroke. A-Fib is an irregular heartbeat that can cause clots in the heart which can travel to the brain and result in a stroke. A physician can suggest an anticoagulant drug treatment that may reduce the risk of stroke.

Quit smoking – Smoking thickens the blood and increases the amount of plaque buildup in the arteries which can lead to clot formations. Quitting smoking is one of the most powerful ways to improve overall health and reduce the risk of stroke. A physician can recommend an appropriate cessation aid.

Alcohol in moderation – Drinking alcohol can increase the risk of stroke. Limiting consumption of alcohol to one glass a day may actually decrease stroke risk. Drinking red wine is recommended because it contains resveratrol, which is thought to protect the heart and brain. A standard-sized drink is a 5-ounce glass of wine, 12-ounce beer, or 1.5-ounce glass of hard liquor.



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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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