

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

#### Visit us at www.LMHealth.org.

The Quality Report Card is a publication of the LMHS Public Relations Department. Please contact the Public Relations Department at (740) 348-1572 to receive future mailings.

The articles contained in this publication should not be considered specific medical advice as each individual circumstance is different. Should you need medical advice, consult your physician. Entire publication copyrighted 2014 Licking Memorial Health Systems.

All rights reserved.







Volume 16, Issue 9 September 2015

#### Health Tips - Insulin in an Emergency

Disaster preparedness is strongly advised for all patients who rely on medications and medical equipment. It is even more critical for diabetes patients who must take daily medication to survive and often use liquid insulin that must be kept cool.

In recent years, many Licking County residents have experienced extreme weather conditions that caused power outages or prevented travel for a few days. To prevent a disaster from becoming a medical emergency due to insufficient planning, diabetes patients should have the following emergency preparations in place:

- Diabetes supplies ensure that you never run low on insulin\*, oral medications, test strips, lancets, syringes, alcohol wipes, glucometer batteries, insulin pump batteries, and glucose tablets or hard candy.
- An up-to-date list of all your medications and physicians.
- At least three-days' worth of water (one gallon per person, per day). Tap water may be stored safely in clean, plastic containers for six months.
- A three-day supply of food that does not require cooking.
- A travel kit of diabetes supplies. Always keep essential diabetes supplies just in case a sudden, severe change in the weather, or any other unforeseen emergency, prevents you from being able to return home.

\*In the event of a multiple-day power outage, liquid insulin usually will remain safe for several days at room temperature (59 to 86° F).

# **Diabetes 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 them to benchmark measures. Then, we publish them so you can draw your own conclusions regarding your healthcare choices.

Much of the care diabetes patients receive takes place in the outpatient or physician office setting. The physician offices of Licking Memorial Health Professionals (LMHP) measure the most critical indicators for diabetes.

	LMHP 2012	LMHP 2013	LMHP 2014	National
LMHP diabetes patients receiving				
eye exam	67%	67%	66%	58%(1)
LMHP diabetes patients having				
HbA1c test	96%	96%	96%	88%(1)
LMHP diabetes patients having				
lipid profile	94%	95%	93%	83% <sup>(1)</sup>
LMHP diabetes patients having				
microalbuminuria test	90%	90%	90%	84%(1)
LMHP diabetes patients having				
foot exam	92%	90%	90%	80% <sup>(2)</sup>

While having the testing done is important, the test results (or outcomes) indicate how well the physician, in collaboration with the patient, is managing the diabetes. The hemoglobin A1c (HbA1c) test is a simple lab test that shows the average amount of sugar (also called glucose) that has been in a person's blood over an extended period of time.

	LMHP 2012	LMHP 2013	LMHP 2014	National <sup>(1)</sup>
LMHP diabetes patients with HbA1c less than or equal to 7%	58%	59%	58%	38%
LMHP diabetes patients with HbA1c less than or equal to 8%	78%	79%	75%	59%

People with diabetes are at high risk for heart disease. An elevated LDL ("bad") cholesterol test reveals if an individual has unhealthy fat levels, which increase the risk for heart disease, a very serious complication of diabetes.

LMHP diabetes patients with LDL less	LMHP 2012	LMHP 2013	LMHP 2014	National <sup>(1)</sup>
than or equal to 100 mg/dL	65%	67%	69%	48%

The Community Case Management (CCM) program at Licking Memorial Hospital (LMH) provides services to people in the community with diabetes. The American Diabetes Association recommends that a person with diabetes should have an HbA1c blood test at least every six months to monitor glucose levels. LMH staff members work closely with patients and their physicians to ensure that this test is performed as recommended in order to manage each patient's condition better.

	LMH 2012	LMH 2013	LMH 2014	LMH Goal
CCM diabetes patients who				
obtained an HbA1c test	99%	100%	99%	Greater than 80%

Licking Memorial Hospital offers special classes and services for people with diabetes. Certified diabetes educators, registered nurses, dietitians and pharmacists provide one-on-one education to patients and work closely with them to set their own meaningful personal goals for improving their health and well-being.

Goals met by diabetes education graduates – within six months	LMH July 1, 2011 thru June 30, 2012	LMH July 1, 2012 thru June 30, 2013	LMH July 1, 2013 thru June 30, 2014	Goal
	92%	90%	91%	Greater than or equal to 80%

Data footnotes: (1) Average of reported Commercial Medicare and Medicaid/HEDIS measures. (2) National Committee for Quality Assurance – NCQA Diabetic Recognition Program.

### Patient Story - Liz Lake



Liz Lake

Liz Lake of Newark is enthusiastic about her new diabetes treatment plan. She has been using an insulin pump to deliver her medication since January, and she is excited to be feeling more vibrant and energetic now that her blood sugar levels are in better control.

Liz learned that she had type 2 diabetes 15 years ago at the age of 45 after having routine blood work. "My family doctor called to tell me that my fasting blood sugar

was 199 mg/dL. (Normal fasting blood sugar levels are 100 mg/dL or lower.) I was not completely surprised by the diagnosis because several of my family members also were diagnosed with diabetes when they were adults," she explained.

At first, Liz took metformin, an oral medication that is widely used to treat type 2 diabetes. Liz's blood sugar level improved, but she eventually developed side effects from the medication. She began seeing Family Practice Physician Talya R. Greathouse, M.D., who prescribed insulin therapy, consisting of three fast-acting NovoLog® injections immediately before each meal, and an injection of long-lasting Levemir® every night. Despite the insulin therapy, Liz's diabetes progressed over the next several years, and Dr. Greathouse referred her to see I-Tsyr Shaw, M.D., of Licking Memorial Endocrinology, for closer management of her condition.

Dr. Shaw suggested that Liz visit Licking Memorial Hospital's Community Case Management for nutritional counseling. "Even though I had been diagnosed with diabetes for more than 12 years at that point, I still did not really understand which foods I should be eating," Liz said. "I learned so much from Annmarie (Registered Dietitian Annmarie Thacker, M.S., R.D., M.D., C.D.E.) about carb counting and portion control. She taught me to count how many carbs I would consume in an entire meal and then take enough insulin to cover the carbs. Annmarie also gave me a carb-counting book that I still use when I prepare meals."

Late in 2014, Liz had a regular A1c blood test performed to monitor her average blood sugar level over a three-month period. It had

risen to 8.1 percent, which was significantly higher than the target level of 7.0 percent or lower. In January 2015, Dr. Shaw equipped Liz with an insulin pump that dispenses a small, continuous flow of NovoLog.

The insulin pump has helped Liz achieve excellent blood sugar control. Her A1c in late 2014 was 8.1 percent, but after four months of using the insulin pump, her A1c blood test results fell to 5.3 percent. "Before, I did not want to get out of bed in the morning, and I was so lethargic. Now, I have more energy, and I just feel better all the way around!" she reported.

Liz added, "I really like the pump. I did not like taking several shots every day. The pump has a small needle-like cannula that is inserted just under the skin on my stomach. I check my blood sugar level with my meter three or four times a day and adjust the pump's output according to how much insulin I need. During my office visits, Dr. Shaw downloads the pump's computer data to track my blood sugar levels and decides whether I need to adjust my insulin dosage. I absolutely would recommend that patients who are taking insulin should have a discussion with their doctor about whether a pump is right for them."

Liz is a customer service representative at Velvet Ice Cream in Utica, which sometimes leads her acquaintances to assume that she is surrounded by forbidden temptation every day. "A lot of people think that if you have diabetes, you can't have any desserts, but that's not true. You just need to eat small portions and include the sugar content in your carb counting," she stated. "Velvet does make several popular no-added-sugar flavors of ice cream, but I prefer the original flavors — my favorite is Butter Pecan and Cashew. When I want ice cream, I measure out one-half cup and savor it. It's all about portion control."

The two board-certified physicians at Licking Memorial Endocrinology provide care for patients with glandular disorders, such as diabetes, metabolic disorders, thyroid disease, pituitary and adrenal abnormalities, menopause complications and osteoporosis. Dr. Shaw and Sara J. Healy, M.D., are accepting new patients with a physician's referral. To make an appointment, please call Dr. Shaw at (740) 348-1740, or Dr. Healy at (740) 348-7950.

## Patient Story - Howard Hopkins



In addition to being a patient at Licking Memorial Endocrinology, Howard Hopkins volunteers alongside his fiancée, Lila Leck, at the Licking Memorial Hospital TWIGS 6 Granville Thrift Shop. As a retired physicist, Howard Hopkins of Granville knows that numbers matter. For a short time, he tried to downplay the impact that a certain number – his blood sugar level – had on his life. Then he realized that following the science to better blood sugar control would add up to a future with better health.

Howard first learned that he had abnormal blood sugar levels in 2006 during an especially difficult time.

He was on vacation in Florida with his family and suddenly became ill with a heart condition. He was scheduled for triple heart bypass surgery and had routine pre-operative blood work completed. "They told me that I had a condition known as 'pre-diabetes," Howard said. At the time, pre-diabetes seemed a minor concern compared to the impending bypass surgery, and Howard brushed the lesser issue aside.

Howard had known for many years that he was at increased risk for diabetes since several family members had been diagnosed in their later adult years. "I had spoken a great deal with one relative about his diabetes, and I knew that I wanted nothing to do with it. I was in denial." he recalled.

When Howard was diagnosed with type 2 diabetes in the fall of 2014, his family practice physician, Richard E. Simon, M.D., first prescribed Metformin<sup>®</sup>, an oral medication. Howard experienced side effects with that prescription, and Dr. Simon changed the medication therapy to injections of insulin – fast-acting NovoLog<sup>®</sup> before meals and long-lasting Levemir<sup>®</sup> in the evening.

Howard reported that he was feeling good, but the score of his A1c blood test (measurement of average blood glucose control over a 2- to 3-month period) was 7.3 percent – higher than the recommended score of less than 7 percent. Although his A1c score was not excessively high, it was elevated enough that he was at increased risk for diabetes complications, such as cardiovascular disease, neuropathy, digestive problems, foot damage, kidney disease, blindness, and hearing loss. Howard said, "I decided that it was time to get more serious about controlling my blood sugar."

With Dr. Simon's referral, Howard visited Registered Dietitian Annmarie Thacker, M.S., R.D., M.D., C.D.E., of LMH Community Case Management in May. "Annmarie showed me how to count carbs and to recognize which foods are high in carbs," Howard explained. "The challenge for anyone with diabetes is to be aware of the amount of carbs you eat and then ensure that the amount of medication that you take is appropriate. In my case, I take one unit of NovoLog insulin for every 15 grams of carbohydrates, so I've learned to group my meals into 15-carb portions. That shows me very clearly how much insulin I need to take just before each meal. It gets easier with time because your diet doesn't really change that much from day to day."

Dr. Simon also referred Howard to Licking Memorial Case Management's four-session Diabetes Self-Management classes that include presentations by registered nurses, dietitians, and a pharmacist. "I learned so much in those classes," Howard said. "One thing that surprised me was the direct effect that exercise has on blood sugar levels. I now go to the LMH Wellness Center at C-TEC twice a week, and I also use an exercise bike at home for an hour, twice a week."

In the first seven months after his type 2 diabetes diagnosis, Howard's A1c scores ranged from 7.3 to 7.9 percent. Now, he is hopeful that the diabetes education, consistent exercise and dietary control will add up to future A1c scores that are closer to his goal. "I'm shooting for 7.0 percent," he stated.

The registered dietitians at LMH Community Case Management offer one-on-one nutritional counseling by appointment with a physician's referral. Diabetes Self-Management classes are offered each month throughout the year to provide information about all aspects of diabetes. Most major insurance providers usually cover the cost of both services for patients with a physician's referral. Please call (740) 348-4915 for additional information.

The two board-certified physicians at Licking Memorial Endocrinology provide care for patients with glandular disorders, such as diabetes, metabolic disorders, thyroid disease, pituitary and adrenal abnormalities, menopause complications and osteoporosis. Dr. Shaw and Sara J. Healy, M.D., are accepting new patients with a physician's referral. To make an appointment, please call Dr. Shaw at (740) 348-1740, or Dr. Healy at (740) 348-7950.

### **New Options** for Insulin Delivery

The National Diabetes Education Program reports that diabetes affects more than 29 million individuals living in the U.S. – nearly one of every 10 U.S. residents. These individuals are at increased risk of developing serious complications, such as heart disease, stroke, blindness, kidney failure, and lower limb amputations. Careful management and treatment of diabetes has been shown to lower the risk of complications. New options continuously evolve to help insulin-dependent patients regulate their blood sugar levels, including a disposable insulin delivery system device and an inhaled form of insulin that are being prescribed at Licking Memorial Endocrinology.

The Valeritas V-Go® disposable insulin delivery device replaces the need for multiple daily injections. It is a small, pager-sized mechanical device that adheres to the body for 24 hours. The patient fills the V-Go with rapid-acting insulin and then applies the device, usually on the waist or the upper arm. The V-Go releases a small, continuous (basal) dosage of insulin throughout the day, and the patient clicks a button to release additional (bolus) insulin just before meals. The bolus dosage is calculated according to the amount of carbohydrates that will be consumed. The V-Go device is waterproof and may be worn while bathing

or swimming.



I-Tsyr Shaw, M.D.

I-Tsyr Shaw, M.D., of Licking Memorial Endocrinology said, "The V-Go delivery system allows for administration of insulin to my patients with convenience and discretion. They fill the device with insulin in the morning, apply it to their body, and click a couple of buttons at meal times as determined by the physician. It is a good alternative for patients who require insulin, but feel that other delivery systems are too inconvenient or too complicated."

In 2014, the U.S. Food and Drug Administration approved the first inhalable insulin. Afrezza® is a rapid-acting powdered insulin that eliminates the need for injections for some patients. Afrezza is pre-measured and packaged in disposable cartridges that fit into a small, whistle-sized inhaler. The inhaled insulin is quickly absorbed through the lungs and peaks in 15 to 20 minutes.

There are some drawbacks to the use of inhaled insulin, however. Patients who take long-acting insulin are still required to take daily injections because inhaled insulin is available only for the rapidacting form. In addition, inhaled insulin is not recommended for patients with lung conditions, such as asthma, chronic bronchitis or lung cancer.

"Effective blood glucose management is an on-going challenge for all patients with diabetes," Dr. Shaw remarked. "Insulin dependent patients often confess to skipping an occasional injection, due to inconvenience or fear of needles. It is exciting that we now have two new forms of insulin delivery to encourage our patients to take their medications consistently."

Licking Memorial Endocrinology is located at 1272 West Main Street in Newark. Dr. Shaw and Sara J. Healy, M.D., are accepting new patients, and appointments can be made by calling (740) 348-1740 (Dr. Shaw), or (740)-348-7950 (Dr. Healy).