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MATERNITY CARE

# The Unborn Baby Depends on Mother for **Healthy Nutrition and Exercise**

From the moment of conception to the time of birth, an unborn baby has only one source of nutrition to provide the building blocks for growth and development that can have an impact through adulthood. Under normal circumstances, the expectant mother's body provides every nutrient that the fetus needs, but unfortunately, the fetus also can be adversely affected if the mother has nutritional deficits or consumes harmful substances. With proper prenatal care, obstetrician/gynecologists can monitor an expectant mother's health and fetal development for the baby's best start in life.

Alene K. Yeater, M.D., of Licking Memorial Women's Health, carefully assesses each new patient's health status at the beginning of pregnancy. Dr. Yeater explained, "We screen the expectant moms for areas of concern, such as tobacco smoking, drug and alcohol abuse, in addition to healthy nutrition and exercise. Most of the patients indicate that they understand their health and lifestyle affect the baby's well-being, but they may not realize just how strongly their choices make an impact. The earlier we can help an expectant mother improve her own health, the better the fetus' opportunity for good lifelong health, as well."

"It is often quipped that a woman is 'eating for two' during pregnancy," Dr. Yeater said. "There is some truth in that statement; however, it does not mean that an expectant mom should eat twice as much food as normal. Rather, it means that her food intake now directly affects two lives. Eating mindfully to consume the healthiest diet possible is more important than ever at this time."

### Special nutritional needs during pregnancy

To ensure a healthy birth weight, an expectant mother needs to eat a wellbalanced, healthy diet. It is recommended that the mother consume an additional 350 calories a day during the second trimester of pregnancy and an additional 450 calories during the third trimester. An increase in the following vitamins and minerals also will ensure a strong start for the baby.

### Folic acid

With the exception of folic acid (also called folate), expectant mothers usually can get all the nutrients they need from a well-balanced, healthy diet. An increased amount of folic acid is critical to the fetus' brain and spinal development, but it is difficult to derive the recommended amounts through regular food. For this reason, many physicians advise their pregnant patients to take a daily prenatal vitamin that contains folic acid. Natural sources of folic acid include dark green leafy vegetables, asparagus, lentils, broccoli, edamame, sunflower seeds, cantaloupe and peanuts.

### Calcium

Calcium is an essential nutrient for a baby to develop blood-clotting abilities and a normal heart rhythm, in addition to helping build strong bones, teeth, muscles and nerves. Pregnant mothers also can reduce the risk of hypertension and preeclampsia by including an adequate amount of calcium in their diets. Three cups of dairy products or other calcium-rich foods such as milk, eggs, yogurt, cheese, tofu, almonds, cabbage and salmon - will

ensure an adequate daily amount of calcium for most women.

### Iron

During pregnancy, the amount of blood in a woman's body increases, so an expectant mother needs extra iron. Iron is essential in creating hemoglobin – the protein in red blood cells that carries oxygen to other cells and it helps prevent anemia. A daily intake of 27 milligrams is recommended. Red meat, poultry and fish are some of the best sources of iron. Mothers also can get iron from green leafy vegetables and whole grains.

**Protein** 





Erin Keller was no stranger to Maternity Services at Licking Memorial Hospital (LMH) when she chose LMH for the delivery of her son, Benjamin, on June 10, 2016. She delivered her other three children at the Hospital as well – all had been born after their due date. For the birth of her oldest son, James - who is now 6 - Erin's labor was induced at 41 weeks. However, she and her husband, Rob, wanted labor to occur naturally with subsequent pregnancies, which happened for both her middle children. Having no health issues, Erin carried Benjamin for 42 weeks – 16 days past her due date.

When labor failed to begin naturally, the Kellers went to LMH with the plan to have Erin's water broken which they hoped would initiate labor. Janae Davis, M.D., of Licking Memorial Women's Health, examined Erin and found she was dilated to 4 centimeters. Dr. Davis then broke Erin's water, and within 40 minutes, the labor process had begun. The delivery went without incident, and Benjamin was born healthy, weighing in at 9 pounds, 14 ounces.

When making plans for the birth of their children, Erin and Rob never considered driving from their house in Thornville to a Columbus hospital because they had developed great relationships with LMH staff at Licking Memorial Women's Health and felt that the doctors were both competent and

## Patient Story - Erin Keller

compassionate. "I do not understand why anyone would drive to Columbus. Licking Memorial Hospital is close to home, and the staff really cares about the families. For our latest birth, our nurse, Andrea, stayed with us even after her shift was over to finish up in the assistance of the delivery. It is little things like this that make us so happy with our experiences," Erin said.

Both Erin and Rob thought the Hospital staff was exceptional. "They gave us the time we needed to bond with our new baby, while making sure our other children, James, Kathryn, and David, also felt welcomed. When Benjamin had his first bath, another nurse, Sara, encouraged the older children to come close so they could watch," Erin said.

With three children at home, and the new baby with her at the Hospital, Erin appreciated the responsibility-free care for a few days. She enjoyed being pampered by the massage therapist and having the nurses on hand to help when needed. Even though she had breastfed her other three children, Erin was grateful for the availability of a Lactation Consultant. She enjoyed learning more about Skin-to-skin Care and having the baby in the room at all times. The nurses were considerate, checking on her to see if she needed pain medication, water, or help with the baby, but trying not to interrupt time with the family. "The nurses and staff do their best to make sure you are safe and the baby is safe," noted Erin. "It was very comforting."

The Kellers liked the fact that the private post-partum rooms are spacious enough to accommodate family and friends with plenty of seating. They also enjoyed the convenience of providing secure passcodes for special visitors to enter the post-partum unit. Also, special badges provided to the siblings that read, 'I'm the big brother/ sister,' made their older children's visit special.

Since the births of her other three children, Erin said there have been some notable improvements with the mother-baby suites at the Hospital. Now, the newborns are bathed right in the room instead of being taken away to the nursery. Other routine procedures such as recording the baby's weight and measurements also are performed in the rooms, allowing the parents to keep close watch on their baby.

Rob said he was grateful for the staff, too. They provided him a bed to stay in the room with his wife and newborn son. He especially enjoyed a chefprepared dinner of pork chops and steak that he shared with his wife the night before the couple took Benjamin home. "It is such a nice touch that the Hospital provides this special dinner to celebrate such a memorable event. It was nice to have a chance to relax before taking the baby home to join his brothers and sister."

The Kellers also were impressed that the staff called a few days later to check on Erin and Benjamin. The follow-up call is part of the high standards the hospital has set for quality care. LMH earned the Baby-Friendly designation in 2016 through Baby-Friendly USA, Inc. – the gold standard in care, which encourages and recognizes hospitals and birthing centers that offer an optimal level of care for breastfeeding mothers and their babies. The criteria are challenging, designed to set the standards for the best possible breastfeeding support for mother and infant in the maternity setting. LMH is the first community hospital in Central Ohio and one of only ten hospitals in the state to earn the designation.

### Maternity 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.

According to the American Academy of Pediatrics, small-for-gestational-age infants are those who are born weighing less than the 10th percentile for their given gestational age. At term, this weight is 2,500 grams (5 pounds, 8 ounces). Many factors contribute to low birth weight, including lack of prenatal care, a mother's poor nutritional status before and during pregnancy, and drug, tobacco or alcohol use during pregnancy. Low birth-weight infants are at increased risk for health problems. Adequate prenatal care and healthy practices can significantly reduce the incidence of low birth-weight deliveries. In 2016, there were 1,103 babies delivered at Licking Memorial Hospital (LMH) – 64 of those babies weighed less than 2,500 grams.

	LMH 2014	LMH 2015	LMH 2016	National <sup>(1)</sup>
Low birth-weight infants	4.4%	6.0%	6.5%	8.0%

Smoking during pregnancy is an important modifiable risk factor associated with adverse pregnancy outcomes. It is associated with 5 percent of infant deaths, 10 percent of pre-term births, and 30 percent of small-for-gestational-age infants. Because pregnancy smoking rates in Licking County are higher than the national rate, Licking Memorial Women's Health providers have increased their efforts to assess patients' active smoking during pregnancy at each office visit, counsel patients to quit smoking, and refer each pregnant smoker to LMH's free "Quit for You, Quit for Your Baby" tobacco cessation program.

	LMH 2014	LMH 2015	LMH 2016	National <sup>(3)</sup>	
Patients who reported smoking during pregnancy	19%	20%	21%	8.4%	

Exclusive breastfeeding is recommended as the optimal nutrition for infants for the first six months of life, with continued breastfeeding after the introduction of solid foods for the first year or longer, if desired. The American Academy of Pediatrics (AAP), ACOG, World Health Organization and other healthcare organizations support this recommendation recognizing the significant lifelong health benefits of breastfeeding for both mother and child. The AAP recommends breastfeeding should be initiated within one hour of the infant's birth and recommends against routine supplementation of newborn infants with formula or glucose water unless medically indicated. LMH provides prenatal education as well as support and assistance during the postpartum period to help mothers achieve their goals for successful breastfeeding.

Breastfeeding rate upon discharge	<b>LMH 2014</b> 55%	<b>LMH 2015</b> 59%	<b>LMH 2016</b> 73.8%	LMH goal <sup>(4)</sup> greater than 55%
Breastfed infants receiving exclusive breast milk prior to discharge	78%	76%	78%	LMH goal greater than 57%

Cesarean section deliveries (C-sections) should be performed only when necessary. Lower percentages demonstrate success in avoiding unnecessary surgeries and the risks associated with surgery.

	LMH 2014	LMH 2015	LMH 2016	National <sup>(5)</sup>	
Maternity patients who had a C-section	23%	24%	28%	32%	
First-time C-sections	11%	12%	15%	25.8%	

Elective deliveries are scheduled in advance rather than occurring naturally, either through induction or C-section. Studies have shown that elective inductions performed before 39 weeks' gestation have higher rates of newborn complications, higher C-section rates, and longer hospital lengths-of-stay for mothers. LMH has chosen to follow the American Congress of Obstetrics and Gynecology's (ACOG) stricter recommendations, and will perform elective inductions only after 41 weeks' gestation.

	LMH 2014	LMH 2015	LMH 2016	National <sup>(6)</sup>
Elective deliveries performed before 39 weeks	0%	0%	0%	2%





Maternity Care - How do we compare? (continued on back)

### The Unborn Baby Depends on Mother for Healthy Nutrition and Exercise (continued from front)

are used to build cells in the expectant mother's and the baby's body. Protein also positively affects the growth of the brain. Consuming two to three servings a day of fish, chicken, lean beef, or legumes such as split peas or red kidney beans, should provide the recommended daily amount of protein.

There are foods that can cause harm to a developing baby. Expectant mothers should ensure all meats are thoroughly cooked to avoid exposure to harmful bacteria such as salmonella and toxoplasmosis. Eliminate

tobacco smoke, alcohol consumption and drug use. As a precaution, the American College of Obstetricians and Gynecologists (ACOG) advises pregnant women to limit their caffeine intake to less than 200 milligrams per day, which is about one 11-ounce cup of coffee – this helps ensure a healthy birth weight. In addition, expectant mothers should be mindful of the amount of sugar they are consuming to avoid unnecessary weight gain.

Finally, weight management is vital to lowering adverse risks on infants.

Dr. Yeater says ideally, a pregnant woman should gain between 25 to 35 pounds overall. Expectant mothers can continue or even begin an exercise regime to maintain healthy weight. Walking, swimming, yoga, and using a stationary bicycle are all safe ways for pregnant women to exercise. The activity will help reduce back pain, strengthen the heart and blood vessels, and improve stamina to help with delivery. Pregnant women should talk with their physicians before starting an exercise program.

### Maternity Care - How do we compare? (continued from inside)

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Group B streptococci (GBS), which emerged in the U.S. in the 1970s, is an infection that is associated with illness and death among newborns. Most neonatal GBS infections can be prevented through screenings and, if needed, by giving an antibiotic to the mother before delivery.

Mothers with GBS receiving antibiotic within 4 hours prior to delivery	<b>LMH 2014</b> 96%	<b>LMH 2015</b> 99%	<b>LMH 2016</b> 100%	LMH Goal 100%		
Number of newborns testing positive with GBS	0	0	0	0		
*Beginning 2016, mothers who delivered within four hours ar arrival at LMH are excluded from this measure						

Gestational diabetes (GDM) is one of the most common clinical issues during pregnancy. The prevalence of GDM ranges from 2 to 5 percent of all pregnancies in the U.S., and all expectant patients should be screened between 24 and 28 weeks' gestation. Licking Memorial Health Professionals (LMHP) obstetricians screen pregnant patients for GDM by 29 weeks.

	LMHP 2014	LMHP 2015	LMHP 2016	LMH Goal
LMHP pregnant patients screened for GDM by 29 weeks	96%	95%	96%	greater than 90%

#### **Data Footnotes:**

- (1) Preliminary data for 2013. National Vital Statistics Reports, 63(2). Hyattsville, MD: National Center for Health Statistics. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63\_02.pdf.
- (2) Heffner, LJ, Sherman, CB, Speizer, FE, Weiss, ST. Clinical and Environmental Predictors of Preterm Labor. Obstetrics and Gynecology 1993; 81:750.
- (3) Sally C. Curtin, M.A., and T. J., Mathews, M.S., "Smoking Prevalance and Cessation Before and During Pregnancy: Data From the Birth Certificate, 2014," U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics.
- (4) Breastfeeding Report Card, United States / 2013, National Center for Chronic Disease Prevention and Health Promotion. Available at www.cdc.gov/breastfeeding/pdf/2013BreastfeedingReportCard.pdf.
- (5) National Vital Statistics Reports, Volume 66, Number 1, January 5, 2017. Available at www.cdc.gov/nchs/data/nvsr/66/nvsr66\_01.pdf.
- ${\it (6) Hospital Compare. hhs. gov\ Comparative\ Database.}$







Please take a few minutes to read this month's report on **Maternity Care**. You'll 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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