

Quality Report Card



An Overview of Orthopedic Medicine

Orthopedics is the study of the musculoskeletal system, which includes bones, joints, muscles, tendons, ligaments, cartilage and nerves. The musculoskeletal system can be considered as the framework for the body and the mechanics that make it function. Almost every medical specialty has some overlap with orthopedics and the musculoskeletal system.

Orthopedic physicians are medical experts who focus on repairing injuries to the musculoskeletal system, including the spine and major joints. This involves:

- Diagnosis of the injury or disorder
- Treatment with medication, exercise, surgery or other treatment plans
- Rehabilitation by recommending exercises or physical therapy to restore movement, strength and function
- Prevention with information and treatment plans to prevent injury or slow the progression of diseases

Generally, the specialty is referred to as orthopedic surgery, although many non-surgical treatments are provided by orthopedic surgeons. In fact, most orthopedic surgeons have an office-based practice and spend the majority of their time treating patients outside of the operating room. Orthopedists also can be found assisting in the emergency department, taking care of patients in an inpatient hospital setting, or even on the sidelines of a sporting event.

Orthopedists have extensive training and complete up to 14 years of formal education:

- Four years of study in a college or university

- Four years of study in medical school
- Five years of study in orthopedic residency at a major medical center
- One optional year of specialized education

The most common reasons that patients receive treatment from an orthopedic physician are for a broken bone, arthritis, rotator cuff injuries, meniscus tears and carpal tunnel syndrome.

Orthopedic physicians routinely perform arthroscopies, which are minimally invasive procedures to explore hip, shoulder or knee damage. Minor joint problems often can be corrected during an arthroscopy, but more serious conditions may require further surgery. Other commonly-treated orthopedic conditions include:

- Bursitis
- Elbow pain
- Foot pain
- Hand pain
- Knee pain
- Osteoporosis
- Soft-tissue injuries

At Licking Memorial Orthopedic Surgery, physicians Robert W. Mueller, M.D., Kevin M. Ouweleen, M.D. and Andrew John Terlecky, D.O., provide general orthopedic care and surgery, including diagnosing and treating conditions such as fractures, sports injuries, arthritis and disabling conditions of the upper and lower extremities.

Dr. Mueller received his Doctor of Medicine degree at Johns Hopkins University Medical School in Baltimore, Maryland. He completed an internship and residency in orthopedic surgery at Johns Hopkins Hospital in Baltimore, Maryland. Dr. Mueller is board certified in orthopedic surgery. Dr. Ouweleen received his Doctor of Medicine



degree at The Ohio State University in Columbus. He completed an internship and residency in orthopedic surgery at Mount Carmel Medical Center in Columbus. He is a member of the American Medical Association, American Academy of Orthopedic Surgery, and American College of Sports Medicine. Dr. Ouweleen also is board certified in orthopedic surgery. Dr. Terlecky received his Doctor of Osteopathic Medicine degree at The Ohio University College of Osteopathic Medicine. He completed an orthopedic research fellowship with Southwest Ohio Orthopedic Associates and his residency at Grandview Hospital in Dayton. He is a member of the Ohio and American Osteopathic associations.

An Overview of Orthopedic Medicine
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Patient Story – Ed Lewis



A blister on a toe may not be cause for concern for most people, but for a diabetic, it can progress into a significant medical problem, which was certainly the case for Ed Lewis, whose condition ultimately resulted in a toe amputation. Diabetes can slow down a body's ability to fight infection. The high sugar levels in blood and tissues allow bacteria to grow and help infections develop more quickly. Feet and skin are common sites for these problems.

After purchasing a new pair of shoes before a recent vacation to Florida, Ed developed a blister. "I tried to doctor it myself for a week, but it clearly needed medical attention, so I made an appointment when I returned home," he explained. Garth Bennington, M.D., his family physician, referred him to the ER due to the severity of the infection and Ed was admitted that evening.

The following day, Robert Mueller, M.D., Licking Memorial Orthopedic Surgery, reviewed his X-ray, determined the toe was 'suspect' and may need to be removed, and ordered an MRI for the next day. When the tip of Ed's toe had turned black, Dr. Mueller declared that surgery was necessary. "Dr. Mueller explained the procedure and recovery thoroughly. "He is very good with his patients one-on-one and I was comforted," Ed commented. "I had a lot of questions and he was more than patient with me. He was the first person I saw upon awaking from surgery and he assured me the procedure went well."

Ed remained in the Hospital for several days to ensure his body was clear of infection, and noted that Dr. Mueller visited daily to review his progress and answer questions. Ed pointed out that he has continued to receive this high level of treatment in the office as well.

Fortunately, Ed's recovery was smooth. He did not need a single dose of pain medication or require any therapy. Dr. Mueller's office provided a wooden shoe for Ed to assist with post-surgery mobility and offered helpful recommendations for protective footwear. He currently wears a hiking shoe lined with extra thick foam providing protection for the entire foot.

"I never thought something like this would happen to me," Ed said. "But I had not been vigilant about keeping track of my blood sugar or my diet," he continued. Ed explained how being in the Hospital and following a new special diet was very enlightening. He now understands that diabetes is a condition that needs constant attention in order to avoid medical episodes. Ed credits his family for their continuing support. Just recently, he was on vacation with his two sons who also have learned how to help him keep track of his diet. "I have certainly realized the need to fully appreciate my good health and having the use of my body, hands and feet. Most people just don't think about how fortunate they are until a body part is out of commission and the effects are very noticeable."

Ed fondly refers to his physicians as his "medical team" and remarked that he has experienced great results with Licking Memorial Health Systems (LMHS). He also has a high comfort level with Urologist Donald Lewis, M.D., whose office performed very thorough testing to confirm an early diagnosis of prostate cancer. As he

progressed with treatments, he noted that the communication between Licking Memorial Hospital (LMH) and the James Cancer Hospital was invaluable. "I feel so blessed with the care I've received at LMH. I do not know why patients would travel to Columbus for care, unless it was essential."

Ed was an avid tennis player, runner and little league coach for many years and enjoys cooking for his family. He has three grown sons. After retiring from a career with Park National Bank, he purchased a 300-acre farm previously owned by the Heisey family. The farm is home to a 200-year-old, 3,400 square-foot log cabin. He maintains the property and operates the Tall Pines Hall events facility.

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LMH's state-of-the-art surgical facilities are located in the John & Mary Alford Pavilion which opened in 2007. Out of the 7,275 surgeries performed in 2015, more than 5,600 took place on an outpatient basis, saving the patients from extended hospital stays and additional expenses.

Surgery 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.

- Moderate sedation allows patients to tolerate procedures while maintaining adequate breathing and the ability to respond to stimulation. Most drugs used in moderate sedation can be reversed fully or partially, if necessary. However, careful patient assessment and monitoring reduce the need for reversal agents and improve patient outcomes. Therefore, minimal use of reversal agents is a good indicator of quality in moderate sedation.

	LMH 2013	LMH 2014	LMH 2015	LMH Goal
Use of reversal agent for GI procedures	0.08%	0.09%	0.08%	Less than 0.90%

- The healthcare team at Licking Memorial Hospital (LMH) follows a multiple-step process to prevent wrong-patient, wrong-procedure or wrong-site surgery (e.g., surgery performed on the left foot instead of the right foot). This process includes left or right designation at the time the surgery is scheduled, verification of the site on the day of surgery with the patient and the patient's current medical record, marking the site by the surgeon, and final verification in the operating room. In 2015, 7,275 surgeries were performed at LMH.

	LMH 2013	LMH 2014	LMH 2015	LMH Goal
Wrong-site surgeries	0	0	0	0

- Patients undergoing certain surgical procedures as outpatients (not admitted to the hospital) should receive antibiotics before their procedure. Using the correct antibiotics at the correct time can reduce the risk of infections after the procedure.

	LMH 2013	LMH 2014	LMH 2015	National ⁽¹⁾
Outpatient procedure patients with correct antibiotic prescribed	96%	96%	100%	98%

- Patients who have open-incision surgery are at elevated risk to develop an infection at the surgical site. In extreme cases, a localized infection can lead to sepsis, which is a systemic, life-threatening condition. LMH utilizes strict infection-prevention strategies for each surgical patient and ensures that the Hospital's Central Sterile staff members receive certification in proper reprocessing sterilization policies for surgical equipment.

	LMH 2013	LMH 2014	LMH 2015	LMH Goal
Central Sterile staff with certification within one year of completed training	100%	100%	100%	100%
Post-operative sepsis, per 1,000 patients	NA	NA	2.1	State ⁽²⁾ 5.4

- As a quality care indicator, hospitals track 30-day readmission rates for patients who had total hip or total knee replacement surgeries. LMH tracks the rate of patients who had an unplanned readmission back to LMH for any reason (even if the reason was unrelated to the surgery) within 30 days of their Hospital discharge.

	LMH 2013	LMH 2014	LMH 2015	National ⁽³⁾
Total hip replacement readmissions	10.35%	3.77%	7.50%	2.22%
Total knee replacement readmissions	3.33%	2.78%	3.23%	2.12%

- Delays in surgical procedures are an inconvenience to patients who may have fasted for hours and often are nervous. The LMH Surgery staff makes every effort to schedule procedures appropriately for the comfort of patients and their families.

	LMH 2013	LMH 2014	LMH 2015	LMH Goal
Surgeries that started on time	80%	78%	88%	Greater than 90%

- Postoperative patients who lie in bed for long periods are at increased risk of developing a blood clot in their lungs (pulmonary embolism) or legs (deep vein thrombosis). To prevent the formation of these dangerous conditions, LMH uses multiple methods to reduce the risk of blood clots.

	LMH 2013	LMH 2014	LMH 2015	State ⁽²⁾
Postoperative patients who developed a pulmonary embolism or deep vein thrombosis, per 1,000 patients	NA	NA	0	12.9

Data Footnotes: (1) Centers for Medicare & Medicaid Services Hospital Compare website (2) Battelle WayFinder™ Q.I. Dashboard. (3) Hospitalcompare.hhs.gov national benchmarks.



Check out our Quality Report Cards online at www.LMHealth.org.

Licking Memorial Orthopedic Surgery also provides services for individuals with work-related injuries. Patients who have been assigned a claim number should bring this information to their appointment. Partnering with Licking Memorial Occupational Health, every effort is made to return employees to work in a timely manner, reduce medical expenses, and decrease time away from work. The experienced staff understands the Workers' Compensation system and the processes are efficient, cost effective and convenient.

An online medical record allows patients to have secure access to their health information and communicate with the physician's office – without the need to call or visit. To set up an account, please call the office during regular business hours and the staff will offer assistance.

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daily appointment schedule for urgent or emergency visits. In the event of an urgent situation after hours, please call our answering service at (220) 564-1635.

Health Tips – Preparing for Total Knee or Hip Replacement Surgery

Patients who have total knee or hip replacement surgery commonly face new challenges during their recovery at home. Below are many steps that can be accomplished before the surgery that will greatly benefit the patient after discharge from the Hospital.

1. Ensure that living spaces have overhead lighting, not just lamps.
2. Remove throw rugs.
3. Remove clutter and ensure walkways are clear.
4. Complete all laundry washing.
5. Create an exercise tool by tightly rolling a bath towel and securing it with tape.
6. Purchase crushed ice and frozen vegetables to use as ice packs.
7. Stock up on grocery items – especially items for easy-to-make meals.
8. Place elastic shoelaces in shoes.
9. Ensure that there is an appropriate armchair in the home.
10. Acquire any recommended adaptive equipment, such as a walker, shower chair, raised toilet seat, etc.
11. Ensure the home's entrance has at least one sturdy hand railing.
12. Pre-arrange assistance from family members and friends.



**Licking Memorial
Health Systems**

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Visit us at www.LMHealth.org.

Please take a few minutes to read this month's report on **Surgery 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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