

THE UNIVERSITY OF TOLEDO
MEDICAL CENTER

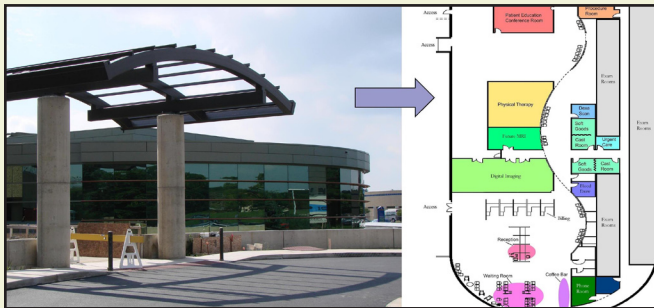
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THE UNIVERSITY OF TOLEDO MEDICAL CENTER

ORTHOPAEDIC MONTHLY

Volume 1, Issue 3 September 2007

THE COUNTDOWN IS ON: NEW ORTHOPAEDIC CENTER WILL OPEN SOON, ELDERLY PATIENTS BENEFIT FROM ONE-STOP SHOP



All services in one convenient location.

When elderly patients have a musculoskeletal injury or condition, the last thing they need is to be shuffled around. That's why The University of Toledo Medical Center (UTMC) built its Orthopaedic Center to have all services located in one convenient location.

While remaining active is beneficial for the elderly, an active lifestyle does increase the risk of injury. As individuals age, they become more susceptible to injuries associated with falls and conditions arising from old age such as osteoporosis and osteoarthritis. In the past two years, UTMC's orthopaedic department has seen a substantial increase in elderly orthopaedic trauma cases. During these two years, UTMC has admitted more than 170 patients age 85 or older for trauma-related issues. This increase can be attributed to the active lifestyle this community is leading.

To provide convenience for the aging population, UTMC's Orthopaedic Department created the orthopaedic center. With digital imaging, physical therapy, blood drawing, exam rooms, patient education, cast rooms, a procedure room, and an urgent care room, the Orthopaedic Center will truly be a hospital within a hospital.

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100 YEAR OLD PATIENT TREATED BY ORTHOPAEDIC DEPARTMENT FOLLOWING FALL

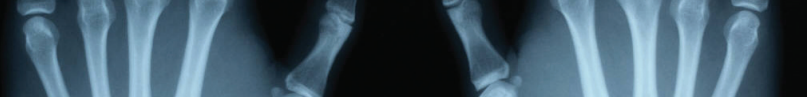
It was Aug. 2 and Tiffin native Cozetta Richardson was in her garage. As she made her way down a flight of stairs, she suddenly lost her balance, slipped and fell. When she woke up, she was in the hospital. A fall down a staircase is an emergency in any situation, but Cozetta's situation was exacerbated by one defining characteristic, her age. As of Feb. 13, Cozetta was 100 years old.

When Cozetta was brought to UTMC, she was given a physical examination followed by CT and x-ray imaging. Fortunately, CT scans of her head and spine were negative, but her



Cozetta Richardson

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THE COUNTDOWN IS ON

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While surgical complications do increase for elderly patients, UTMC's Orthopaedic Department has taken steps to ensure these patients are in safe hands. UTMC's Orthopaedic Department has one of the lowest mortality rates in the country. This low mortality rate can be attributed to timely consultations with an excellent team of specialists, pain management services such as rehabilitation and anesthesia, and minimally invasive surgery. Before a surgical decision is made, cardiac, pulmonary, nephrology, and EMG and nerve studies are also consulted to identify complex conditions.

With a support staff and faculty with bright medical minds, patients can feel safer at UTMC. Patient care is geared toward treating not only the healthy and young, but also the sick, the injured, and the elderly. As a level 1 trauma center, UTMC is equipped to treat a variety of injuries from the simple to the complex.

100 YEAR OLD PATIENT

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right upper extremity films revealed a supracondylar humeral shaft fracture

In the past, this type of fracture was difficult to manage because of anesthetic risks and intraoperative complications. However, through surgical advances and with UTMC's skilled team of internal medicine, anesthesiology and orthopaedic surgeons, Cozetta would undergo surgery to restore function to her arm. The fracture was fixed utilizing a series of pins with an external fixator connected to allow for better reduction. Once tightened, Cozetta was placed in a posterior splint and taken to recovery in stable condition without any complications. According to Cozetta's son, UTMC's orthopaedic surgeons acted swiftly to fix the injury.

"UTMC's surgeons did a marvelous job," he said. "They took my mom's arm and basically put it back together for her. This is remarkable at her age."

With a support staff and faculty with bright medical minds, patients can feel safer at UTMC. According to Professor and Chairman of Orthopaedic Surgery Dr. Nabil Ebraheim, UTMC is prepared to treat every patient.

"Our care is geared toward treating not only the healthy and the young, but also the sick, the injured, and the elderly," Dr. Ebraheim said.

RHEUMATOID ARTHRITIS CAUSES ACHES AND PAINS IN ELDERLY



Few daily activities get easier as you grow older. Imagine the difficulty then if you were one of the two million Americans suffering from rheumatoid arthritis. Tasks we take for granted such as turning door knobs and opening jars can become as difficult as lifting weights. While the onset of rheumatoid arthritis is uncommon under the age of 15, the incidence rises with age until the age of 80.

Rheumatoid arthritis is an autoimmune, chronic disease that causes inflammation of the joint's synovium (lining). Typically, the body's immune system produces antibodies that protect against foreign substances. Patients who have rheumatoid arthritis, however, have an immune system that mistakenly attacks its own healthy tissue. When tissue is attacked, the synovial membrane that secretes lubricating fluid allowing joints to move becomes inflamed. This inflammation causes damage to body tissue, cartilage and bones leading to joint deformity, destruction and loss of function.

Rheumatoid arthritis is thought to progress in three stages. In the first stage, synovial lining swells, causing pain, stiffness, redness and swelling around the joint. During the second stage, there is a rapid division and growth of cells that causes the synovium to thicken. Then, during the final stage, the inflamed cells release enzymes that attack bone and cartilage. This attack causes the joint to lose alignment and shape resulting in increased pain and decreased movement.

RHEUMATOID ARTHRITIS CAUSES ACHES AND PAINS IN ELDERLY

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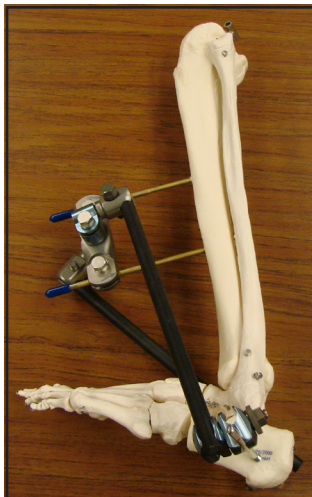
While there is no cure for this chronic disease, treatment controls rheumatoid arthritis by relieving pain, reducing inflammation, stopping or slowing joint damage and improving personal functioning. If the arthritis is severe or the patient requests, there are a number of surgical operations used to curb rheumatoid arthritis including arthroscopic surgery, osteotomy, joint replacement surgery and fusion. According to Professor and Chairman of Orthopaedic Surgery Dr. Nabil Ebraheim, UTMC has surgeons who can help patients with rheumatoid arthritis from neck to toe.

“We have several highly skilled physicians who can treat patients with rheumatoid arthritis,” Drs. Ebraheim said. “We have Dr. Padanilam for foot and ankle, Drs. Skie and Mustafa for wrist and hand, Dr. Chaudhary for hip and knee, and Pamela Sheridan, DPM, for other podiatry needs.”

Patients suffering from rheumatoid arthritis can present a myriad of symptoms including fatigue, lack of appetite and low grade fever. While these symptoms may differ from individual to individual, muscle and joint aches and stiffness are the most common. Some patients may present no symptoms then go through stages where the condition moves from being in remission to becoming active.

There is constant research being done to understand more about this disease, both how it manifests itself and how it can be controlled. While some scientists believe that rheumatoid arthritis is the result of genetic inheritance, others believe it is the result of infections or environmental factors, such as including smoking tobacco.

ELDERLY PATIENTS BENEFIT FROM SURGICAL ADVANCES



Few fields of study refine techniques as often as the medical field. As each day passes, researches across the country attempt to discover the next big medical breakthrough. With every piece of data collected, researchers strive to reach one common goal: to provide the best possible care for patients. Through their work, we've seen innovative technology refine orthopaedic surgery, especially for elderly patients.

Today's elderly strive to remain active and involved in their communities. Despite the heart and mind's ability to stay young, there are significant changes in the elderly musculoskeletal system. Strength is often lost as a result of decreased muscle mass and degeneration of the neuromuscular junction. Decreased muscle mass, coupled with slower reflexes, lessens

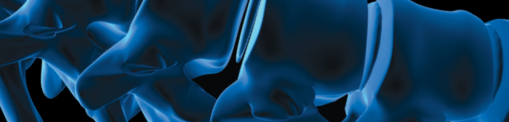
the ability to reduce the force generated from falling, leading to a higher number of elderly injuries.

Surgical advances including minimally invasive surgery, improved instrumentation, better fixation, synthetic bone grafts and guided imaging systems enable elderly patients to maintain active lifestyles after injuries.

During minimally invasive surgery, specialized video cameras called endoscopes are passed through small incisions to perform surgery. Images from cameras are projected on screens to guide procedures. Smaller incisions, a hallmark of minimally invasive surgery, lead to smaller scars, less pain, less blood loss, shorter hospital stays, less chance of infection and avoidance of muscle stripping associated with traditional open procedures.

Another surgical advancement for elderly patients is improved instrumentation. Here, locking plates and screws have changed the face of internal fixation. Conventional plates rely on screws to maintain fixation and prevent plates loosening prior to adequate fracture healing. Bone is soft, and conventional screws don't hold well enough to allow for proper healing. While this is acceptable in most situations, some cases require additional security. In these of cases, typically for osteoporotic bone, nonunions and malunions, locking plates have been developed to increase the mechanical stability. In addition to locking plates and screws, there have also been advances in fixation, such as intramedullary fibular fixation.

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ELDERLY PATIENTS BENEFIT FROM SURGICAL ADVANCES

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Researchers have also had success in developing synthetic bone grafts for elderly patients that cannot afford to take bone from other areas of their body. Bone morphogenetic proteins (BMPs), a type of synthetic bone graft, speeds bone healing and overcomes the immune system's response to donor bone. Instead of rejecting the synthetic bone graft, BMPs successfully create fusion quickly and reliably.

UTMC's department of orthopaedic surgery has used BMP's with success. This success has been achieved without the negative side effects associated with other types of bone graft substitutes.

Through patient research, the future remains bright for the elderly surgical patient.

THE UNIVERSITY OF TOLEDO MEDICAL CENTER **ORTHOPAEDIC MONTHLY**

Editors: Dr. Nabil Ebraheim, department chairman and professor of orthopaedics, and Dave Kubacki, assistant to the chairman.

Neither Dr. Ebraheim nor Dave Kubacki have any relationships with industry to disclose.

For medical questions you would like to see addressed in this newsletter, please e-mail Dave at david.kubacki@utoledo.edu.

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