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We are excited to bring you our seventh edition of the Louisville Orthopaedic Clinic Magazine. It is a privilege to offer information that can help you understand a variety of common orthopaedic ailments and advancements in orthopaedic medicine. The Louisville Orthopaedic Clinic and Sports Rehabilitation Center's mission is to provide comprehensive orthopaedic care in a caring and friendly atmosphere.

Since 1974, the practice has grown from three to eleven orthopedic surgeons working in collaboration with certified physician assistants and nurse practitioners to enhance the treatment process. Our surgeons are board certified in orthopaedic surgery and have completed fellowship training in custom total joint replacement; arthroscopic procedures of the knee, shoulder and ankle; surgery of the spine; foot and ankle disorders, fracture management, and sports medicine. We offer onsite conveniences of an open MRI, outpatient surgery suites and a physical therapy department.

Our patients experience the latest technology and concepts available in healthcare. Louisville Orthopaedic Clinic continues to advance through technology with the implementation of an electronic health record to meet meaningful use requirements. Digital x-ray equipment and registered technicians ensure the highest quality images possible to aid in the diagnosis and treatment of our patients.

Our website at www.louortho.com offers a wide range of features to include general office information, detailed educational background on physicians, educational resources to better understand your medical condition and a patient portal. Our interactive patient portal allows patients to communicate with our office via the internet or mobile device. The patient portal is a secure method of exchanging information between the patient and facility. Patients can register, update information, request medical records, complete online payments, request refills on medication, send non-urgent medical requests, and request appointments. Our physicians participate in research studies and contribute to medical journals and publications, all accessible on our website.

As part of our sports medicine program, we are team physicians for Ballard, Manual, North Oldham, Sacred Heart and St. Xavier High Schools along with Spaulding University providing sports physicals and urgent care. We are dedicated to providing education and treatment to the community.

The physicians and staff of LOC thank you for the opportunity you have given us to serve you and look forward to meeting your orthopaedic needs.

Deborah Martin
Administrator
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Memories of
Donald T. McAllister, M.D.

Dr. McAllister was my first partner in the clinic and has had no peer. He came to me after a short practice in hand in California, and I welcomed him home to Louisville. He helped mold excellence into the reputation of LOC. As they say about the late Elvis Presley, he will always be remembered and “never forgotten”.

Initially, our hours in the clinic and surgery were long. It was not uncommon for us to perform at least 8 to 10 operations on a Saturday just to catch up. The emergency room at that time sent 90% of all its orthopaedic patients to us, so it is not hard to imagine the pressure to find new partners and expand. We moved to our present location in 1980, and through the years became a 10-man practice. We were quite selective in adding physicians to our staff, and it helped to promote the long-term reputation and ethical qualities of our practice.

We attended many meetings together, ran many miles through the streets, and enjoyed a common fellowship. He became more a brother than a partner. Despite the success of the orthopaedic clinic and the magnitude of our growth, his ego remained confident and never overbearing.

He was magnificent with his family and wife Diane and spread himself thin to accommodate the growing number of grandchildren. He was forever proud of his family and their offspring. Even at the end, he wanted many of his grandchildren to remember him as he was.

There are not enough words to value the respect and admiration he had with his patients and the staff at LOC. He had a magnetic personality that induced friendship in any crowd. We made two trips to Ireland and Scotland on golfing missions. Certainly he would receive a blue ribbon for friendship and sportsmanship.

I have shared caring for his patients for many years, and they always reiterated their devotion for him. I had the utmost respect for him as a physician, a surgeon and loyal friend. This is a benchmark not achieved lightly. He was more than a partner throughout the 38 years. Don will be missed but never forgotten.

— Ernest Eggers, M.D.
Dr. Donald McAllister has been my friend and associate for over 40 years, and we have shared many of life’s ups and downs, both professionally and personally. In all activities, Don took the moral high ground, displayed integrity and honesty in both his personal and professional life. I personally will miss Dr. McAllister very much, and can, without reservation, say he was a good man.
— Norman Lewis, M.D.

Don McAllister was a man of devotion: Devotion to his faith, his family, his schools (Saint Xavier, Notre Dame, etc.), his friends, and his patients. I recall many times when he would enter my workstation and present me with the symptoms, signs, and needs of the patient he wanted me to evaluate. He would make it quite clear how I should proceed but also indicated he would respect my advice. He would then carry his big broad athletic frame out of the workstation knowing he had made it quite clear that I had better proceed with the same sincere devotion.
— Tom Lehmann, M.D.

Just a few memories of Don. Not that any words could describe the depth of my admiraton for him:
Jenna was our first daughter born in Kentucky, almost exactly a year after I started practice here. Don was the only one of my partners who made it a point to visit our house with Diane to meet Jenna. I remember him, wearing his Sunday’s finest coat and tie, holding almost her entire head and body in that huge right hand of his. Their eyes locked and something special passed between them. Jenna and Don had a special bond from that moment forward!
As a side note: Candace, Deb and my third daughter, was born two years later. Don congratulated me as we walked out the office stairwell to our cars and said mater-of-factly, “Don’t worry, George, I had to have three daughters before I had a son!”
Many years then passed, but I will NEVER forget his final words to me: “George, it has been a privilege all these years to call you my friend. I’ll see you on the other side.” My response was to hug him and ask him to save me a place there.
— George Quill, M.D.
As we pass through life, I think what each of us would like to accomplish is to really “make a difference” and to leave an imprint on the world and upon those we touched during our time on earth. In short, each of us would like to leave a legacy that mattered. Don McAllister, our partner of many years, left just such a legacy.

The legacy Don left, of course, starts with his family. As the patriarch of the McAllister clan, it is here that he had the greatest influence via the gift of love, guidance, and wisdom. Don’s wife, Diane, his children, their spouses, and his grandchildren have richly benefited, and each is better because of Don’s influence on their lives.

But his legacy extends beyond his family. It includes all who were touched by him in his professional career. With Don’s passing I now see many of his patients in the office, all of whom have stories to tell of how Don helped them. And each of them have expectations of me to live up to the high standard Don set in guiding them through their orthopaedic problems, caring for and about them as individuals, and providing the best in surgical expertise.

Don McAllister’s legacy also is imprinted on the staff at the Louisville Orthopaedic clinic. He treated every LOC employee with respect and took a personal interest in the lives of each. He showed no pretensions that he was in any way superior to those around him, and for this reason he was beloved.

And finally, Don’s legacy is indelibly imprinted on his partners at the Louisville Orthopaedic Clinic. When I first joined the LOC in 1982, cocksure and full of myself, he took the time to guide me to make sure I was properly grounded and that whatever professional decisions I made were always in the best interest of the patient. He encouraged me to always strive to be excellent. He helped push me to develop what is now a flourishing joint replacement practice, even at times when I had self-doubts. Don’s was the council I always sought when faced with a difficult or challenging problem. He was my mentor. I always valued his wisdom.

There have been few individuals in my life who have had the impact and influence that Don McAllister has had on me. I will miss my partner and my friend...

— Richard Sweet, M.D.
When I first met Dr. McAllister, he presented himself as a hard-nosed, ex-Notre Dame football player, and I must admit that I was somewhat intimidated. However, once I joined the practice, I learned quickly that Dr. McAllister was an amazing, caring, and thoughtful orthopaedic surgeon. Early in practice, I had the privilege of scrubbing in on surgery Dr. McAllister and to this day, I still use many of the pearls that he taught me during those cases. Don truly was an amazing individual and I feel blessed that I had the opportunity to work closely with him. He is greatly missed.

— Robert Goodin, M.D.

Dr. McAllister was not only my friend but also my mentor. I met him over 30 years ago while doing a college internship with Louisville Orthopaedic Clinic. Between quips about Notre Dame being the finest institution in the land, he questioned me about basic science applications in medicine. He challenged and inspired me to pursue medical school. Periodically, he checked on my progress and was pleased that I entered an orthopaedic residency. He said, “Everyone calls themselves a sports doctor these days, however, I like the advances in shoulder arthroscopy. Very exciting!” He wrote letters helping me secure my fellowship and later went to bat for me to join Louisville Orthopaedic Clinic. I remember telling him about my first case in private practice. He was sitting on a tiny stool dictating charts when he stopped to listen and said, “These are exciting times. People are now entrusting their care to you.” We traveled to many sports medicine meetings, attended lectures in the morning, played golf in the afternoon, and caught up on the changes in medicine and society. I likened Don to Johnny Carson. He was as comfortable talking to a professional athlete or corporate CEO as he was to someone’s ninety-five year old grandmother. He could listen, relate to them, and make them feel comfortable. There are many “McAllisterisms” I could share but one stands out. He said, “Scott, change (in medicine and society) is going to occur whether you want it to or not. Be prepared to handle it and go with it if its not morally unacceptable.” The change I’m feeling now is not having Don around to discuss football, wine, golf swing mechanics, new arthroscopic procedures and such. I do, however, feel his presence in the halls of the Louisville Orthopaedic Clinic making sure the highest level of care is provided to all of our patients.

— Scott Kuiper, M.D.

I had a much different relationship with Donald McAllister than that of most of my partners in that, not only was he a senior partner who recruited me into this group, he was also my father-in-law, so I had the opportunity to get to know him, not only on a professional, but a personal basis. The qualities that Don displayed that made him such an excellent and respected surgeon and leader in this group also endeared me to him as a father-in-law, in that he was always very even-handed, was not invasive. He was always there to dispense advice when needed, but never uninvited. The role he played both with his large, extended family and having 5 kids and 12 grandchildren was very similar to the role that he played in this office. He was always the voice of reason. He was always the even, steady hand that helped to guide both this office and his partners as well as his family and their extended family members through conflicts. He was always my “go to guy” should I have any questions, whether they be personal or professional, and I think that is what I will miss most about Don. And I think the members of his family and the partners in this practice all feel the same.

— Ty Richardson, M.D.

I’ve seen many of Dr. McAllister’s former patients. The biggest compliment to him comes from his patients. They loved his honesty, his personality, his intelligence and technical skill. He had a “bigger than life persona” to many of his patients.

— J. Steve Smith, M.D.
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Hip Replacement: Present State and the Future

The total hip replacement continues to be the most dramatic and successful orthopaedic innovation in the last half century. It originated in England and blossomed through multiple developments into a potential life-long implant. It was at one time termed an “old person’s” operation. It now serves all generations.

History

Initial hip replacements required cement of all components. While successful, it required considerable surgeon technique to provide a long lasting result.

In the early 80’s, cementless fixation was born with ingrowth services on the prosthesis. Slowly, this became the new method of choice with surgeons around the world. Chrome cobalt or ceramic heads and a plastic liner were the accepted materials; certainly this was turning point in hip surgery as it began to eradicate the breakdown of cemented implants.

In 1997, I performed an FDA study with eight other surgeons in the country utilizing a metal/metal bearing, both Wright Medical Company developed this concept, although a surgeon named Ring in England had used a similar method in the late 60’s with rather questionable results. He did not have surfaces on his prosthetics that would foster a good bony ingrowth for permanent fixation.

Some researchers consider that the wear products of metal-on-metal may cause an increase in ions and eventual bone absorption or health problems at high levels. Statistically, this has not been a danger. For reasons still uncertain, there is also an increased incidence in corrosion where the stem joins the ball. This is somewhat similar to “rusting”. After several years of large head metal-on-metal implants, most have discontinued. Thusly, in trying to decrease the incidence of plastic or polyethylene wear complications, we have ushered in other potential problems with metal-on-metal.
What is the appropriate choice of implant for the patient?
With the advent of the new cross length polyethylene or plastic liners, many surgeons have reverted back to metal or ceramic heads. With the elderly, a chrome cobalt head and plastic is quite appropriate. In younger, more active individuals, ceramic on the new plastics may be the present gold standard.

If patients desire a metal-on-metal articulation, I would only perform with a modular type of socket where there is a liner of metal to fit a somewhat smaller sized head.

Ceramic on ceramic has been accepted through the years as a viable alternative, but it also comes with potential dangers and may also be technique dependent. If the angles of insertion are not somewhat perfect, particularly with the impingement, there may be a tendency to cracking or even dislocation. Excessive wear of ceramic can also be toxic to the bone.

Conclusion
State-of-the-art hip replacement is solely dependent upon the surgeon. There is no one perfect company or device, although outstanding results can be expected with appropriate tight fixation of the implants and correct orientation.

The ceramic ball on the new plastic liners appears to be the safest at this time, and I have had many engineers disclose that they would have that particular choice.

Metal/metal with modular components or ceramic/ceramic with modular components are decisions that require input and forewarning with the patient.

The internet has been a wonderful invention, and patients have considerable access to complex information. In the end, however, the total hip replacement must be acceptable to both the patient and physician.

While the total knee replacement has become a very dependable “way of life sustaining” procedure, it may be difficult to match the long term results with that of the hip.
Contemplating My Arthritic Hip

A PERSONAL REFLECTION

A few years ago my wife and I took a warm weather winter vacation with several couple friends. Among our week’s activities, the guys, as usual, played several rounds of golf. It was at the end of that week that, with all the right hip pivoting required of the golf swing, I noticed for the first time, soreness in my hip. When our trip was over and I returned to normal mid-winter life, the symptoms quickly resolved. In short order, the episode was out of mind with the assumption that the soreness had simply been “muscular”. As the calendar turned to the warm weather months of spring and summer and I resumed recreational golf (I usually walk when I play), I had a couple of minor recurrences. Nothing serious. No soreness that interfered with any of my activities, including golf and I wasn’t particularly worried. I did not even have an X-ray taken. But the soreness was intermittently there, nonetheless. By the following summer, episodes of right hip soreness seemed to be occurring more frequently and with greater intensity. At this point, I needed to investigate the cause (my wife tells me the ostrich finally took his head out of the sand) and had X-rays taken. The result: early right hip arthritis. Ugh!

Over time, my hip problem has, as expected, slowly worsened. For the most part, it still is not troublesome with daily activities or even with all day standing in the operating room. However, over-the-top golf (as occurs on my “buddy golf trips”) and walking a hilly course has become somewhat of a problem. More recent X-rays have shown, of course, that the arthritis has worsened. The reality has set in that at some point in the future, I am going to have a hip replacement. All of a sudden, the advice I have provided to patients contemplating knee and hip replacement surgery has taken on a much more personal nature.
1. When Will I Have Surgery:
One of the major questions anyone considering knee or hip replacement surgery faces is, “How bad does it need to get before I have it fixed?” There is no simple answer to that question. For some who are very fearful of surgery, the pain needs to be disabling to the point where even the simple act of walking short distances becomes impossible. Others who are unrealistic about the risks or the limitations of surgery want it fixed at the first sign of a problem (even with the best operation nothing is ever as good as it was when we were “young and immortal”). For me personally, clearly, if my arthritic right hip starts to interfere with normal daily activities, I will have it replaced. If it becomes a problem with the physical demands of my surgical profession, the decision to go forward with surgery will be easy. The gray area will be when it really starts affecting and limiting the fun things in my life, like golf, but not yet the day-to-day activities of work and normal life. My wife strongly advises me to quit golf when that time comes and put off surgery. My foursome advises me to get it fixed and don’t miss a tee time. When will I decide to have surgery? Though I am not completely sure now, as I routinely tell my patients, I think I will know when the right time has arrived. At this point, I think it is very unlikely I will let myself get to the point that I am unable to participate in recreational activities without having my hip replaced.

2. The Big One -
Anterior vs. Posterior Surgical Approach:
The big current controversy in hip replacement surgery is which surgical approach to use, anterior vs. posterior. That’s too bad. Here is the reality. Both the anterior and posterior approaches are standard, well accepted, ages-old surgical approaches to the hip. Neither is remotely new. Both have advantages and disadvantages. For instance, the infection rate and femoral fracture rate is higher with one (anterior) and the dislocation rate is slightly higher with the other (posterior). The recovery rate has been hyped as being shorter with the anterior approach, though in reality there is little difference. Making this all a moot point is the big secret in hip replacement surgery recovery timeline that everyone seems to have forgotten. That forgotten secret is this: we put the implants into the bone with a “cementless technique”. Both the cup and femoral stem have a beaded porous surface into which bone grows to biologically “fix” the implant to the bone. AND THAT BONY INGROWTH PROCESS TAKES 6-8 WEEKS! For biologic ingrowth to occur, the implants must be rigidly fixed in place so that no micro-motion occurs. Micro-motion of the implant in the bone can lead to loosening and result in the need for further surgery. This 6-8 week timeline for bone to “heal” to the implant is the rate-limiting step in recovery. Technically, we as surgeons, try to wedge the implants into the bone rigidly so that we do not need to limit a patient’s activities or weight-bearing status while this bony fixation of the implant occurs. In reality, if a patient’s bone is too weak or if a patient is too vigorous in early post-op activities, micro-motion and early implant loosening is possible. So no matter how the hip is approached surgically, anterior or posterior, the implants will not be rigidly a part of the bone for this 6-8 week healing period.

The big advantage of the posterior approach is simply that it is technically easier. With the anterior approach, the surgeon places the patient on a special surgical table so that the body can be hyper-extended at the hip by lowering the foot to near the floor. Then the femur is levered upward so the surgeon can gain the proper angle for access to it for implantation of the femoral component. With the posterior approach, the surgeon is looking straight down the bore of the canal, and femoral component insertion is much simpler. Trust me on this: the easier any operative procedure is, the fewer problems there are post op. And in skilled hands and when properly performed, the posterior approach dislocation rate is a fraction of 1%.

Conclusion
I am facing right hip replacement surgery. That is inevitable. There is no treatment, exercise, medication or therapy measure that can change the inexorable deterioration of my hip. So I am accepting of it. I will probably decide to have surgery when my hip becomes enough of a problem so that it significantly interferes with my enjoyment of life, and certainly if it starts to become an issue with work. I am not afraid of the operation. I know all will go well. I will choose a posterior approach for my surgery with instructions to my surgeon to make the incision long enough and exposure big enough so as to make the operation easy. Though I obviously want as “minimally invasive” a procedure and as quick as recovery as possible, I will make sure my surgeon knows I am not particularly concerned about the results at one week. What I really want is new hip that is solid, durable, and will last the next two decades or more of my life. Those will be my instructions to my surgeon. And they should be your instructions to me as you contemplate having a new knee or hip implanted in you.
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SOLES 4 SOULS
We held our seventh annual Louisville Hearts to Souls/Soles4Souls event Monday, November 25th. We distributed over 80 pairs of men’s and women’s shoes to those recovering from drug and alcohol addiction as well as the homeless. Almost all - including the women - were particularly grateful for the stout (and good-looking) boots donated by Red Wing this year!

GUATEMALA 2014
Twice per year Dr. Quill travels to Guatemala, as a volunteer with the Children of the Americas group, to perform orthopaedic surgery on children who could not otherwise afford these procedures. The second trip is made to provide follow-up care for patients whom he previously treated and to ensure any post-op concerns are appropriately addressed to ensure a successful surgery and recovery. During these trips, volunteers train local physicians in techniques needed for appropriate aftercare.

www.childrenoftheamericas.org

Baby who had Syndactyly Release

Untreated clubfoot in a 43 year old woman

We provide full peri-operative service. After surgery and a brief hospital stay, I had to pack this boy, the wheelchair we provided him, his entire family, and two nuns into a tiny car to his home in a remote part of Guatemala!

My daughter Jenna & her new friend, Mary, were the night shift adult nurses for the entire hospital.
**ARTHITIS FOUNDATION**

Here is our group at the “Walk To Cure Arthritis” September 2013. We were able to contribute to the Arthritis Foundation through a sponsorship of the event as well as donating over $600 to the foundation.

[Image of a group at the Arthritis Foundation event]

www.arthritis.org

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**LOUISVILLE ORTHOPAEDIC CLINIC PHYSICIANS AND STAFF IN OUR Community**

**LOC staff hosting our company table at a local health fair.**

**Dr. Vemuri, Dr. Richardson, and Marissa touring one of the GE plants. GE provides an onsite medical clinic for their employees to utilize. Our physicians treat many of GE’s injured workers.**

**“20 QUESTIONS” LOUISVILLE CATHOLIC SPORTS NETWORK**

As a continuation of our support for our local student athletes and schools, Louisville Orthopaedic sponsors a feature called “20 Questions”. This weekly feature is a part of the Louisville Catholic Sports Network’s website. Each week, a local student athlete is chosen to answer “20 Questions”. This is an opportunity for them to be in the spotlight and share their passions, hobbies, goals, future aspirations, and much more.

To nominate a local athlete for “20 Questions”, email pnajjar@catholicsportsnet.com or visit www.catholicsportsnet.com/louisville

[Image of the Louisville Orthopaedic Clinic & Sports Rehab Center]

[Image of Dr. Vemuri, Dr. Richardson, and Marissa]

[Image of LOC staff at a health fair]

[Image of Dr. Vemuri, Dr. Richardson, and Marissa touring a GE plant]
The Orthopaedic Distinction

What is an orthopaedic foot and ankle specialist?

As a long-time member of-and a physician who has served on numerous committees for-the American Orthopaedic Foot and Ankle Society, I am a member of an organization of more than 2,000 orthopaedic surgeons from the United States and abroad who specialize in the medical and surgical treatment of injuries, diseases, and other conditions of the foot and ankle. Physicians who are members of the American Orthopaedic Foot and Ankle Society have an interest in foot and ankle surgery with a specialized education needed to deliver quality, ethical, and cost-effective patient care.

Realm of Treatment

As an orthopedist with a special interest in caring for the foot and ankle, I am often asked how my training and education differ from that of podiatrists. This article will briefly help the reader make that distinction. The realm of treatment for orthopaedic foot and ankle surgeons includes bone, joints, ligaments, muscles, tendons, nerves, and skin. We perform reconstructive procedures, treat sports injuries, and manage and treat trauma of the foot and ankle. Orthopaedic surgeons who specialize in the care of the foot and ankle have completed 4 years of medical school and 5 years of accredited graduate education (residency training) in orthopaedic surgery.

Orthopaedic Board Certification and Licensing

As a fellowship trained orthopedist, I have spent an additional year studying medical and surgical disorders of the foot and ankle after college, medical school, and orthopaedic residency. Orthopaedic surgeons who specialize in foot care employ medical, physical, and surgical methods to restore function lost as a result of injury and disease to the foot and ankle. They coordinate their treatment methods with a foot care team that includes other physicians, nurses, physical therapists, physician assistants, and nurse practitioners as well as pedorthists. In order to get this far in my practice, I have had to undergo rigorous training of the entire body and its multiple organ systems proximal to the ankle. Being board certified by the American Board of Orthopaedic Surgeons, a member of the American Academy of Orthopaedic Surgeons, as well as, the American Orthopaedic Foot and Ankle Society, I have an unrestricted license to care for the musculoskeletal system and all those organ systems that impart upon it. Podiatrists, on the other hand, may only obtain a restricted license upon completion of their training.
Podiatric Educational Requirements
Orthopaedic surgeons are, therefore, the most ideal providers of foot and ankle care. United States podiatric education, on the other hand, includes 4 years of education, 2 years of which are in the sciences and 2 years of which are clinical and hospital externships. Available to most podiatrists is a 2 to 3 year podiatric residency program. A doctor of podiatric medicine degree is necessary to be accepted for surgical residency. Admission to a podiatric medical school in the United States requires a minimum of 3 years of college but it is not necessary to be a college graduate to gain acceptance to a school of podiatry. In 2008, the last year for which these data are available, only 96% of podiatric matriculants held a bachelor’s degree.

Podiatric credentialing is quite confusing. Each podiatric medical school is subject to different state and/or regional accrediting and governance. To make matters regarding credentialing even more confusing, there are no fewer than 4 separate national or American boards of podiatric credentialing and numerous state podiatric boards as well. It would seem to an uneducated observer that the various boards for DPM certification are in competition with each other to be the provider of peer review and to justify their own existence. A podiatrist can be certified in one or both “specialty” areas, primary care and orthopedics, or surgery. Board recertification and retesting or the accumulation of continuing medical education credits are not required by these agencies to maintain board status in podiatry. In fact, many currently practicing and operating podiatrists never attained their boards and were grandfathered in after the fact. Currently, podiatric board certification includes a minimum of a 2-year residency requirement, and, in most cases, only the 3-year programs include training in the rear-foot and ankle.

Applicant Scoring Comparisons: MD vs. DPM
Furthermore, the American College of Foot and Ankle Surgeons has about 6,000 members, but it is a well-known fact that over 14,000 podiatric medical schools are affiliated with colleges or universities. Two are independent and award degrees and diplomas without that academic affiliation. It is interesting to compare the United States acceptance rates between schools conferring the DPM degree to those conferring an MD degree. There are approximately 1,000 applicants to podiatry school per year and about 600 are accepted and enroll each year. In 2009, there was a 68% acceptance rate to podiatric medical school. In contrast, in 2007, there were almost 36,000 medical school applicants and 15,747 were accepted and matriculated for a 44% acceptance rate. In 2009, podiatry school matriculants had an average overall GPA of 3.3 while in college and the average science GPA on those accepted and enrolling in podiatry school was only 3.1. The average MCAT score for podiatry school matriculants in 2009 was 21. Of those applying to medical school in 2010, the average GPA was 3.53 and the average MCAT was 28.3. The scores and GPA of those who actually were accepted to medical school was even higher.

In 2012, 60 orthopaedic foot and ankle fellowship spots were filled in the United States, but there were 602 podiatrists trained that year. These numbers would indicate that, for years, orthopedists have been well trained in care of the foot and ankle and of the entire musculoskeletal system, but only recently have there been increasing numbers of residents seeking formal foot and ankle fellowship training.

Every United States orthopaedic residency program does include care of the foot and ankle in its curriculum. It is my opinion that we as orthopaedic surgeons do want to promote ourselves as the most ideal physicians and surgeons for providing the best musculoskeletal foot and ankle care.

Selecting a Medical Provider
I would suggest that in selecting a medical provider to care for your feet and ankles, you should be sure to ask him or her about their medical school education, their accredited residency training program, their areas of practice specialization, and their experience in your prescribed treatment (surgical and/or nonsurgical). I would refer readers of this article to the American Orthopaedic Foot and Ankle Society website: www.aofas.org for further information on the orthopaedic distinction. Another good resource is the collection of patient educational material available at: www.aofas.org/footcaremd.
Relief for “The General”
Offensive Lineman Suffers Ankle Fracture and Dislocation

As sports medicine physicians, we are occasionally reminded that football is a contact sport. The majority of time that I spent on the sidelines with the Manual football team over the last nine years, I have been treating sprains, strains, and possible concussions, but around once a season we have a significant injury which occurs.

George Dailey was a senior offensive lineman for the Manual Crimsons and on the night of November 15th in the last playoff game against Trinity High School, on the last drive of the game, a Trinity lineman lost his balance and rolled on George’s right ankle. He suffered a significant injury. I could tell by the reaction of the players around him that it was bad and was running onto the field before the play was even over. He had suffered a fracture and dislocation of his right ankle. Basically, his right foot was pointing out around a 90 degree angle to the way his right knee was pointing. I had to reduce his ankle on the field and place him into a splint. I then accompanied George and his parents to the Baptist East Emergency Room to view the X-rays. Indeed, there was a significant fracture and an unstable dislocation. He was scheduled for surgery the following morning and underwent internal fixation of his ankle and syndesmosis. Mr. Dailey has done very well during his postoperative period and at around five months after surgery he was jogging, had excellent range of motion, and had all of the hardware, or the plate and screws, removed from his ankle. George wishes to attend a military academy following his graduation from Manual High School, which is appropriate. His on-field nickname was “the general.” This is appropriate due to the fact that he was constantly barking out orders to the younger and less experienced lineman and was also usually the one rallying the troops when times were tough.

Both I and the staff at Louisville Orthopaedic Clinic wish Mr. Dailey the best of luck in his future athletic endeavors. He would like to try to rehab his ankle for another year and possibly try to walk onto the football team at a later date at one of the military academies.
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As you approach retirement age, you must decide whether to begin taking reduced Social Security benefits early or wait until the full benefit retirement age (FBRA), or even later. In many cases, this decision will depend on factors other than trying to receive the greatest lifetime benefit from Social Security. Remember that, while you have the option of receiving Social Security benefits as early as age 62, the eligibility age for Medicare remains at 65. So, although you may be able to replace a sufficient amount of your earned income with Social Security benefits beginning at age 62, you may not be able to adequately replace your employer-provided health insurance.

Even if you have sufficient funds to live on without considering Social Security, many people prefer to begin receiving benefits as soon as possible. For 2013, the benefits at age 62 are reduced by 25% of what they would be at age 66 (for many, the FBRA); but, you will receive more Social Security checks if benefits are drawn early. In addition, drawing early Social Security benefits may allow you to leave tax-deferred retirement accounts untouched and growing for longer periods.

Another reason to receive benefits early is if you have children living at home. Children under age 18 (or up to 19 if a full-time student) may be eligible for benefits if you are also receiving Social Security benefits.

Furthermore, if you wait until the FBRA to draw benefits, it will take several years to reach the break-even point to make up for the years of payments that were not received.
Example: Receiving Social Security benefits at age 62 vs. the FBRA — Curt is single and plans to begin receiving Social Security benefits on his 62nd birthday in 2013 when his benefit, based on his earnings history, is $1,000. He will receive monthly Social Security retirement benefits of $750, or 75% of his benefit. Therefore, he will receive 48 benefit checks of $750 each (not considering annual inflation adjustments), a total of $36,000, by the time he reaches age 66 (his FBRA).

Curt’s benefit would have been $1,000 if he had waited until age 66 to begin receiving benefits. Therefore, it would take him 12 years (starting at age 66) before the additional $250 per month ($1,000 − $750) benefit caught up to the $36,000 he would have received between ages 62 and 66.

When the present value of future Social Security benefits is considered, it could be more favorable to start the benefits as soon as possible (if the money is going to be invested). However, if you are simply using early Social Security benefits to replace a similar amount of earned income, the short-term financial position will not be improved and the long-term outlook could suffer.

Another factor to consider in taking retirement benefits early is the increased tax cost. With a smaller Social Security retirement benefit, you may need to work or draw on other resources to meet expenses. If the additional taxable income you generate exceeds certain thresholds, 50% to 85% of your Social Security benefits will be taxable.

You might carefully consider the long-lasting advantages of waiting until the FBRA based on the following factors.

Life expectancy. Your life expectancy may be the biggest factor in deciding whether to receive benefits early. By age 62, you should have a good handle on your own life expectancy based on your current health and the longevity of your parents. In general, 77 years might be a good cutoff point. If you reasonably expect to reach that age, waiting until the FBRA may be a wise choice.

Shortening the retirement period. A significant factor in retirement planning projections is the length of the retirement period. For example, if you want to retire at age 62 and you have a life expectancy of 85, you have a 23-year retirement period to fund. By working past age 62, you are shortening the retirement period and lowering the amount of money needed to fund your retirement regardless of longevity.

The earnings test. If you are considering receiving retirement benefits before your FBRA but you intend to keep working, you must consider the earnings test. For 2013, Social Security benefits are reduced $1 for every $2 in earnings above the exempt amount of $15,120.

Replacing lower-wage years. Your Social Security benefits are calculated based on your highest 35 years of indexed earnings. If you can replace lower-wage years early in your career with higher-wage years after age 62, the benefit can be increased. This can lead to a greater benefit when you retire.

Inflation adjustments. Social Security benefits receive an annual inflation adjustment. By taking early benefits, your starting base for these annual adjustments is smaller. For example, if your benefit was $1,000, but you retired early and received only $750, each year you would miss out on the compounded inflation adjustment of that $250 in lost benefits. In other words, the gap between the early retirement benefit you receive and the amount you would have received by waiting will get bigger and bigger.

The effect on your spouse. Your decision to start receiving Social Security benefits before reaching the FBRA may also affect your spouse’s benefits. If your spouse does not have a personal earnings record, he or she will only receive half of your retirement benefit.

After the FBRA. If you delay receiving benefits until after you’re the FBRA, you will receive larger benefits because of the delayed retirement credit. You may receive a credit of up to 8% per year for each year you delay receiving benefits until age 70.

If you are able to wait, the delayed retirement credit can have a significant impact. In addition to the higher retirement benefit you will receive, you will also shorten your retirement period and increase your spouse’s survivor’s benefit.
Sports Nutrition for Cycling and Endurance Events

Scott D. Kuiper, M.D. is an orthopaedic surgeon for Louisville Orthopaedic Clinic and Sports Rehab Center PSC in Louisville, Kentucky. He sub-specializes in Sports Medicine and athletic related injuries. Aside from his professional accomplishments, Dr. Kuiper is a two time USA Cycling Master’s National Champion.

As an orthopaedic surgeon and competitive cyclist I’m often asked questions about how to get started with a training program for recreational riding and racing. Most of what I’m going to tell you was not learned in medical school but from my own personal experiences training and racing as a member of the Texas Roadhouse Cycling Team: A team consisting of ex-professional, elite, and masters cyclists (www.texaroadhousecycling.com). Proper hydration and nutrition are of paramount importance for enjoying the cycling experience and maximizing your performance.
Rookie Mistakes
When I first started riding about 10 years ago, I went on a hard 15-mile ride in 90-degree weather without drinking much water and ended up under a tree feeling clammy, nauseated, and fatigued. I painfully learned that I needed a plan for hydration and nutrition if I was going to ride regularly. Since a number of you reading this may be interested in cycling or training for an event such as the Tour de Lou, a century ride, or other endurance events, let me give you some tips on avoiding this scenario and getting the most out of your cycling, whether it’s for a recreational event, or full on racing.

Hydration Can Make or Break You
Our bodies are like a machine. To optimize performance, the body needs both fluid and fuel (calories) to account for energy expended. It’s easy in our society to be chronically under hydrated. We wake up and have a cup of coffee followed by a diet cola at lunch and a beverage at dinner. If your routine is similar to this, you will be chronically under hydrated. If you then add a vigorous workout to your day, there is no way your body can perform at its best. Keeping an adequate base hydration is important to avoid “bonking” on the bike. The amount of water you need to stay adequately hydrated throughout the day depends on the ambient temperature, your weight, and activity level. A 175-pound active individual needs approximately eight twelve-ounce glasses of water a day for base hydration. You can use a hydration calculator to check your individual needs based on your weight and activity level. (www.ormcheartcare.org/index.php?/hydration).

In addition to base hydration, extra fluid is needed to replace what is lost during exercise. You should equip your bike to hold two water bottles. I start by drinking 10-12 ounces of fluid prior to riding. During the ride, I drink at least a standard cycling bottle (20 ounces) for every hour on the bike and more if the ride is particularly difficult or it’s especially hot. On hot days, you want to bring extra water to, not only drink, but also squirt on your head, face, or back to cool down. This is the reason for cycling jersey pockets! Use them for extra bottles if needed. On long (3-4 hour) rides in the summer, my teammates and I devise a route that includes a store or gas station stop to refill our fluids.

Maintaining Energy Through Nutrition
The body also loses electrolytes during exercise. High concentrations of sodium and chloride are lost through sweat, as well as, lower concentrations of potassium, magnesium and calcium. Electrolytes help maintain fluid balance during physical activity and, if deficient, can lead to symptoms such as muscle cramps, nausea, dizziness, and fatigue. Muscle cramping, while usually associated with a potassium deficiency, is more likely related to sweating off a large amount of sodium during exercise. Therefore, replacing sodium is extremely important. If the workout is longer than one hour, you should try to replace electrolytes. Use one bottle for water and the other for electrolyte replacement. A sports drink in one bottle will help with this. There are commercial electrolyte replacement drinks as well. I currently use E02 EDGE (www.mri-performance.com). I’ve also had success with Accelerade™ (www.pacifichealthlabs.com/). Both products replace electrolytes and provide carbohydrates and protein. E02 EDGE also has nitric oxide to improve circulation to muscles and may improve endurance and power. Electrolytes are also found in gels and sports bars (see below) so check the labels of your favorite products.

Now that you understand the importance of hydration and electrolyte supplements, let’s talk about fuel. Your body needs fuel to burn while you exercise. This fuel comes from a variety of sources. Carbohydrates are foods that are broken down into sugars (glucose, fructose, galactose) and used as energy or stored. The stored sugars are deposited in muscle or liver in the form of glycogen. Glycogen is the primary source of energy for exercise in the short term. As an exercise session lengths and, depending on intensity, the body will also burn fat stores at a ratio between 60/40 carb/fat up to 80/20 carb/fat at high intensity efforts. As stores become depleted on
longer or more intense rides (greater than 1 hour) protein is used as fuel. This protein is taken from your muscles and needs to be replaced on or after the exercise session.

Practically speaking, glycogen stores can be kept high by maintaining a healthy diet with whole grains (but low in wheat products), pasta, fruits and vegetables, as well as lean protein. Having a meal with protein and eating complex carbohydrates will keep you from having a high insulin surge. If your insulin surges and then drops your body will continue to crave more simple carbs and sugars. Prior to a vigorous workout or event you should eat a meal 2 ½ -3 hours prior to allow for your stomach to empty and the nutrients to be absorbed. You want to have a meal that has complex carbohydrates and some protein. I like a breakfast that includes Greek yogurt (21g carbs, 13g protein) and cottage cheese (6g carbs, 12g protein, 470mg sodium), oatmeal, or alternatively 2 eggs and a bowl of cereal/granola with 2% milk. Eating a high carbohydrate sports bar or a couple of energy gels 30-60 minutes prior to an event will boost your blood glucose to provide immediate energy to your cycling muscles. Researchers at Ohio State University have shown a 12.5% improvement in performance when 40-75 grams of carbohydrates was consumed before a workout.

During exercise, the number of calories expended will depend on your weight and the intensity of your effort. A 150-pound cyclist averaging fourteen miles per hour will burn approximately 550 calories per hour. At higher intensity efforts, or if you weigh more, you can plan on burning 700-1000 calories per hour. Calorie calculators are available to estimate what you burn (www.bicycling.com/training-nutrition/training-fitness/cycling-calories-burned-calculator). Your body can’t tolerate the full caloric replacement during exercise because of a variety of physiologic factors. If you over replace these calories, you will only end up feeling bloated or nauseated. Try to replace about half of what you burn on the ride. I try to take in 350-400 calories per hour of exercise during a hard workout and get the rest with my post ride recovery.

<table>
<thead>
<tr>
<th>Activity (1 hour)</th>
<th>130lb</th>
<th>155lb</th>
<th>180lb</th>
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<tr>
<td>Cycling, mountain bike, BMX</td>
<td>502 calories</td>
<td>598 calories</td>
<td>695 calories</td>
<td>791 calories</td>
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<td>281</td>
<td>327</td>
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<td>1126</td>
<td>1308</td>
<td>1489</td>
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<td>422</td>
<td>490</td>
<td>558</td>
</tr>
<tr>
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<td>563</td>
<td>654</td>
<td>745</td>
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<tr>
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<td>817</td>
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<td>844</td>
<td>981</td>
<td>1117</td>
</tr>
<tr>
<td>Unicycling</td>
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<td>352</td>
<td>409</td>
<td>465</td>
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<td>Stationary cycling, very light</td>
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<td>211</td>
<td>245</td>
<td>279</td>
</tr>
<tr>
<td>Stationary cycling, light</td>
<td>325</td>
<td>387</td>
<td>449</td>
<td>512</td>
</tr>
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<td>Stationary cycling, moderate</td>
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<td>493</td>
<td>572</td>
<td>651</td>
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<td>Stationary cycling, vigorous</td>
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<td>739</td>
<td>858</td>
<td>977</td>
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<tr>
<td>Stationary cycling, very vigorous</td>
<td>738</td>
<td>880</td>
<td>1022</td>
<td>1163</td>
</tr>
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</table>
and pain at high intensity efforts. Cutting open sports bar packages prior to riding can help you eat safely on the fly during a group ride.

**Proper Recovery Is Essential**
One of the most important aspects of training is recovery! After a long effort, even with the proper on-ride replacement, you will be dehydrated and need caloric replacement. Studies have shown this is best accomplished within the first 30 minutes after exercise. You can estimate the calories burned relative to what was replaced on the ride to determine what’s needed. According to endurance coach Chris Carmichael, you need about 0.7 grams of carbohydrates per pound of body weight as well as protein to provide essential amino acids needed for muscle repair. This should be at a ratio of 3 to 1 or 4 to 1 carbs to protein. For a 180-pound cyclist this amounts to 126 grams (504 Cal) of carbs and 31 grams (126 Cal) protein. One way to recover is to simply add 4 teaspoons of sugar to a 16 oz. glass of 2% milk or simply drink chocolate milk to get both the needed carbs and protein. Several good commercial brands are available as well. My favorite is Endurox R4 (www.pacifichealthlabs.com), a recovery drink with both soy and whey protein and a 4:1 carb to protein ratio. By combining the two forms of protein all the important amino acids are accounted for in the recovery process for broken down muscles. Replace each pound lost by drinking 20-24 oz. of fluid post exercise.

In conclusion, hydration and nutrition play a critical role for successful endurance training, recreational event riding, and racing. If you follow these keys to success you will have safer more enjoyable training rides and better results in endurance events. If you want to take it to another level consider hiring a cycling coach to guide your workouts and help you peak for important events. An excellent coach locally is Curtis Tolson, a multi-time national cycling champion, available through www.facebook.com/CurtisTolsonCoaching. Sports performance training is also available through Baptist Sports Medicine at www.baptistsportsmedky.com/ for cycling, strength and conditioning, as well as, sport specific training.

**KEYS TO SUCCESS:**
1. Keep your base hydration level up. Drink water throughout the day.
2. Eat 2½ - 3 hours before a big ride or workout.
3. Eat carbs 30-60 minutes before workout (one sports bar or gel)
4. Drink one bottle (20 oz.) water per hour during exercise. More if it’s hot or your workout is vigorous.
5. Electrolyte supplement in one bottle of fluid (E02 EDGE, Gatorade, or other sports drink, Accelerade™) or from gels or bars.
6. Replace 300-400 Cal per hour with bars, fluids, gels, or real food like Fig Newton’s, a banana, or my favorite, a peanut butter and jelly sandwich!
7. Consume a 16 oz. recovery drink within 30 minutes of exercise with a 4:1 carb to protein ratio. Chocolate milk will work!
8. Each pound lost during exercise is replaced with 20-24 oz. fluid post ride.
Short Hospital Stay/Outpatient Knee and Hip Replacement Surgery: AN EVOLVING TRENDS

The length of hospital stay after knee and hip replacement surgery has been steadily decreasing over the last three decades. There have been a variety of factors influencing this trend. Improvements in surgical technique, pain management and implant design have helped make earlier hospital discharge possible. Medical economic forces have put pressure on all parties to decrease the costs. The result has been a gradual reduction in hospital length of stay that has until recently plateaued at three nights after knee replacement surgery and two nights after hip replacement surgery.

Recent Hospital Stay Trends

In the last couple of years there has been a new push to further shorten the length of hospital stay. Outpatient (day of surgery discharge) knee and hip replacement surgery has become possible in fit, healthy, motivated patients. A one to two night hospital stay has become the norm for many others. Reasons for this recent shortened stay include:

1. Surgical Technique Improvement: Surgical techniques that employ more minimally invasive/muscle sparing principles have continued to evolve. In knee replacement surgery, the “minimally invasive” quadriceps muscle sparing surgical approach allows for immediate return of quad muscle function thus allowing the patient to begin mobilization and therapy the day of surgery. In hip replacement surgery, muscle-protecting techniques, now common in both the anterior and posterior surgical approaches, have had similar effects on early mobilization.


3. Pain Management Advances: Improvements in pain management have made patients much more comfortable during the first 24-48 hours after surgery. A major advance in pain management has been the development of long acting local anesthetics that can be injected directly into the joint to effectively “numb” it from the inside out. Exparel (bupivacaine), a newly developed local anesthetic with slow release properties that is injected into the joint during the operative procedure, has been shown to be effective for up to 48 to 72 hours after surgery. The ability to “numb” the joint for 48-72 hours without interfering with muscle function is one of the major reasons immediate mobilization of the patient and early hospital discharge has become possible. Previous commonly utilized sciatic and femoral nerve blocks that are effective at “numbing”
the leg, but simultaneously “paralyze” it for up to 24 hours thus delaying mobilization, have been abandoned (in some cases a sensory only femoral nerve block that does not “paralyze” the muscle is still utilized).

4. Medical Economic Factors: As the cost of medicine has escalated, medical economic forces have put increasing pressure on all parties to cut costs by shortening the length of hospital stay. These economic factors have motivated hospitals and outpatient surgical facilities (who are experiencing decreased reimbursement for hip and knee replacement procedures), surgeons, the physical therapy team, and even patients (who are experiencing increasing out of pocket expenses) to “find a way” to make short hospital stay or even outpatient replacement surgery possible.

5. Home Health Care Improvement: Home health care has dramatically improved in recent years. The ability to provide quality physical therapy at home decreases the necessity of staying in the hospital to obtain such services. Nurses caring for patients at home have become increasingly experienced thus more able to recognize any early potential problems or complications post op. These factors have increased the successfulness of hip and knee replacement surgery without increasing the risks of short hospital stay or outpatient surgery.

PATIENT ADVANTAGES

There are advantages to the patient on a short hospital stay or outpatient surgery timeline after knee and hip replacement surgery:

1. Rapid Mobilization: A big advantage of an early discharge to home after knee and hip replacement surgery is the natural increase in mobilization demonstrated by patients at home vs. those recovering in a hospital bed. Patients at home spend less time in bed and more time up in a chair, walking and “doing for themselves”. All of which is a form of rehab and is arguably just as important as formal physical therapy.

2. Decreased Complications: All hospitals, but especially Baptist Health Louisville (who by volume is the 8th leading joint replacement hospital in the USA), have made great efforts and strides to reduce hospital related problems and complications and have done so with considerable success. Even still, hospitals are large facilities with many employees required to successfully deliver the needed care to all patients. And by nature, many of those patients are sick. The safest place to recover from surgery so as to minimize exposure to any number of potential issues is at home. I want to be clear that I say this not as a scare tactic regarding in-hospital care. Our modern hospitals, (especially Baptist Health Louisville) do a great job avoiding hospital related problems. Still, the sooner one can safely be discharged home, the safer one is.

3. Decreased Out-of-Pocket Patient Expenses: Many undergoing joint replacement surgery now have health insurance coverage that requires out of pocket expenses to the patient to be calculated as a percentage of overall costs. For those patients, the lower the cost, the less such patients need pay. Early hospital discharge can often keep these costs to a minimum.

PATIENT REQUIREMENTS FOR EARLY DISCHARGE

Patient requirement for early discharge home include:

1. Help at Home: Though hip and knee replacement patients become independent and are able to take care of themselves quickly, for the first few days help at home is needed just for routine personal care issues and safety.

2. Patient Health and Fitness: In general, good overall health and fitness is required for early safe discharge after major joint replacement surgery. Those with significant health issues or with increased risks of complications will be best served with a traditional 2-3 night hospital stay.

3. Home Environment: Many patients considering early discharge to home after joint replacement surgery have concerns regarding the ergonomics of their home environment. Of particular concern is the presence of steps that need be navigated at home. Though a patient fresh post op after hip and knee replacement surgery may not be up to repetitively dealing with stairs, a modest amount of stair climbing is both taught by the therapy team prior to discharge and can be dealt with readily by the patient.

Short hospital stay and outpatient hip and knee replacement surgery are becoming increasingly common. With careful patient selection, a skillful muscle protecting surgical procedure, modern pain management and cutting edge home health care, this modern approach is proving to be both safe and beneficial to the patient.

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Regional Interdependence: Treat the knee without treating the knee.

Picture this: You’re an avid runner and you’ve recently ramped up your training for the upcoming mini-marathon. In doing so, you’ve developed some nagging pain in your right knee. Being the pro-active person you are, and aspiring to do well in the race, you decide to seek the care of a physical therapist.

During the evaluation, the physical therapist takes a thorough history from you, examines your right knee, but also assesses the rest of your body. They end up treating your left foot and providing home exercises for your hips and trunk. Curious as to why this was the choice of treatment, since the right knee is clearly the source of pain, not the hips or the foot, you ask the therapist for clarification. The therapist responds “regional interdependence.” They explain that your left foot lacks the mobility (motion) you need, your hips and trunk are weak, and it appears these deficits caught up with you during your training.

In this instance the right knee was the victim, and the foot and hips were the problem. The therapist went on to explain the importance of looking at the body as a whole, and not chasing symptoms. With this treatment approach, they feel confident you’ll be back to pain-free running in no time.

The aforementioned case is one example of the musculoskeletal examination model termed “regional interdependence.” Regional interdependence is the concept that potentially unrelated impairments above and/or below one’s complaint can contribute to that complaint. As physical therapists, we are taught to assess areas of the body above and below the patient’s area of complaint; this is necessary to determine if those areas are contributors or not. Intervention is then applied to those areas deemed as impaired with the expectation of producing a result at the source of complaint. The interventions could be anything from hands on techniques to exercise. The result could be improved range of motion, decreased pain, or improved strength just to name a few. Now this is not to say the area of symptoms is not impaired, it very well may be, however there are often additional areas involved that may have contributed to the problem and deserve attention.

The regional interdependence model came about due to the need for a better approach to explaining and treating musculoskeletal disorders. As the field of rehabilitation has progressed, so too has our knowledge of how the body works and the limitations of the old approaches to treatment.

It is important to note that regional interdependence applies to addressing impairments above and below one’s source of symptoms, and not that of referred pain, or pain being felt in a different area from the actual source.

Josh Bixler, PT, OCS, DPT is a residency-trained orthopedic physical therapist with KORT in Louisville, KY. Comments or questions to bixlerj1@kort.com

Given this information, you might be saying to yourself, “This concept sounds great in theory, but is there evidence to support it?” Absolutely! The current literature has many articles referencing regional interdependence either directly or indirectly. The literature contains thoracic spine (mid-back) interventions for the cervical spine (neck); thoracic spine, shoulder blade, rib, and cervical spine interventions for the shoulder; cervical spine interventions for the elbow; hip interventions for lumbar spine (low back); hip, ankle, and foot interventions for the knee.

Clinically speaking, assessments of an athletic population may involve impairments even further up or down the body. When assessing a baseball pitcher with elbow or shoulder pain, one must not only look at those areas, but also consider the neck, shoulder blade, thoracic spine, lumbar spine, hips, legs, knees, and feet. This approach is similar for runners, where abnormal breathing patterns could also potentially contribute to impairments.

With the acceptance and growth of the regional interdependence examination model, assessments have been developed to further assist healthcare professionals. One of those assessments is the Selective Functional Movement Assessment, or SFMA. The SFMA is a tool that allows clinicians to assess patient movement patterns starting at the neck and working down to a body-weighted squat. From there, movements identified as “dysfunctional” can be further broken down into mobility versus stability problems. This approach, along with best current evidence and clinician expertise, can help guide the clinician with decision making.

In a time with rising healthcare costs and with money tight, patients have come to want and expect care that produces meaningful outcomes. In the case of the runner, the right knee was the victim and a thorough assessment using the regional interdependence examination model helped to “treat the knee without treating the knee.”

Do you have pain or just want to take a pro-active approach like this runner? Consult your physician, the professionals at KORT, or visit www.kort.com to learn more.
Recently Renovated Regis Woods

Genesis HealthCare has completed an extensive renovation and modernization initiative at Regis Woods, located at 4604 Lowe Road, Louisville, KY. Regis Woods recently underwent a $3.5 million dollar transformation, which focused on the needs of patients, residents, families and hospitals in the surrounding area. Some renovations include: a new Transitional Care Unit (TCU) with a separate rehabilitation gym, lounge and dining area, and a new 3000 square foot gym with a 1000 square foot satellite gym. The TCU offers new state-of-the-art rehabilitation equipment, 21 comfortably enhanced private rooms as well as 22 finely appointed private suites that will include a sitting room, bedroom and private bath. Other new amenities include three restaurant-style dining cafes, quiet libraries, Wi-Fi, flat screen televisions and phones. Regis Woods also offers two long-term care neighborhoods for residents that choose to make this facility their home.

Regis Woods’ Transitional Care Unit (TCU)

Regis Woods’ Transitional Care Unit (TCU) is for patients requiring post-acute rehabilitation and medical services related to an acute illness, injury, or post-surgery. The TCU serves as a bridge between the hospital and home, offering excellent care in an environment that is specifically dedicated to assisting patient with a speedy recovery and returning them home as quickly as possible. Rehabilitation therapy and accelerated services are designed to get the patient back to the daily activities and routines they love and enjoy. The average length of stay in a TCU is typically 3 to 4 weeks.

While all of the skilled nursing centers at Genesis HealthCare offer care for ShortStay patients, the Transitional Care Units offers enhanced Clinical Capabilities and comfortable amenities, including: rehabilitation services 7 days/week, state-of-the-art medical and therapy equipment, 24-hour coverage by nurses specially trained in patient assessment and evaluation, full time physician coverage and enhanced rehabilitation gyms. With medical staff that has an expertise in post-acute care; patients will be able to spend their time after the hospital and before returning to their home in excellent hands.
It’s not just about getting you back on your feet. It’s about getting you back to your life.

Whether you or a loved one are looking to rehab from open-heart surgery, a knee or hip replacement, an injury, stroke or other condition, look no further than Heartland. We offer comprehensive services to support the increasingly complex needs of our patients with a focus on getting them back to their life as quickly as possible. For more information, call 800-736-4427 or visit www.heartlandnursing.com/Louisville and see why we say Heartland is your best way home.
Knee Replacement: Art and Choice of Implant

Knee replacement of some form dates back to the mid 1970’s. Instrumentation was rather archaic in design of limited engineering skill. Since that time, particularly in the 80’s and early 90’s, there were vast improvements in the ability to align and better fixate implants for patient comfort and mobility. I have found that old knees with excellent fixation, alignment and balancing have lasted thirty years or more. Engineering of the implant and accuracy of the instrumentation has led to marked improvement and results. Physician skill and experience is necessary to make use of these two breakthroughs with the passage of time.

The rotating platform of DePuy has been at the forefront of longer lasting knee prosthetics. This involves a plastic bearing between the two upper and lower metal components that is fashioned to allow a slight amount of rotation, and thusly removing significant stress factors to both of the metal implants. This has led to better plastic wear and a lower incidence of loosening of the prosthesis through time.

The rotating platform is a more difficult installation and requires more accurate balancing. Good instrumentation and experience are key to the success of this knee. In my practice, it is used more in younger men or women with an athletic lifestyle and/or increased body weight. Various improvements have been made in the rotating platform, and the average life span appears to be well over twenty years and counting. Patients frequently feel that this knee replacement is more natural in its feedback and function.

The more traditional knee implants also have excellent results and have been installed more accurately in some people using the MRI or CAT scan computer method. With this, the hip, knee, ankle axis is taken into consideration with the scan to improve alignment and rotation of the individual’s anatomy. Better balancing of the knee including the

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soft tissue ligaments can and does lead to longevity and improved function. The traditional knee, however, has a fixed plastic between the two metal components, unlike that with the rotating platform.

Both of the knees described in the photos here have excellent cemented and un-cemented knee replacements. Improved titanium mesh has vastly increased the capability of bone ingrowth and a permanent attachment to the bone.

**Custom Knee Implant**

All companies now have a CAT scan or MRI method of customizing the implant to that particular patient’s knee. It is not necessarily done in the elderly but may be a distinct advantage in aligning the hip, knee and ankle axis.

After the office visit and X-rays, the patient is scheduled for an MRI or CAT scan of the knee. This gives the appropriate alignment and rotation of the components. Information is sent to Warsaw, Indiana for customizing the instruments to the particular patient’s size and deformity.

I performed the first pre-navigation or custom knee with Biomet a number of years ago, and it remained an accurate way of implanting a joint.

This slightly decreases the size of the incision, decreases operating time and may offer a benefit over traditional instrumentation in many cases depending upon the deformity of the bone.

**Hemi or Partial Knee Replacement**

The hemi or partial knee replacement has also been vastly improved with the MRI pre-surgical model. Although no surgery is infallible, this technique has improved surgeon accuracy in placement of partial implants. The Oxford knee of Biomet has a mobile plastic bearing which may increase flexibility of the joint and decrease wear.

The hemi knee, regardless of the company involved, has a low percentage of real use. Many surgeons do not perform it at all, and others possibly 2% to 3% of their yearly implants. It is mainly reserved for the younger population with strict concentration of arthritis on the medial or inner side of the knee. The cruciate ligament must be intact, and there should be limited arthritis in the patella. Other considerations include body weight, density of the bone, future athletic activity, severity of work conditions and personal expectations. If implanted well, the majority of patients do well. It is not restricted only to the younger-aged group, but may find use for the more elderly with significant health considerations and a limited arthritis to the inner side. The partial knee certainly is much less of a stress to the body, not only physically, but in recovery.

Long lasting results with the partial knee using a fixed rather than a movable bearing of plastic have been used over the last thirty years plus. Many of these lasted anywhere from ten to twenty years or more. Fixation and accuracy of the surgeon is most important and patient selection choice.

**Summary**

Three different types of knee replacement have been described and all of these can be made state-of-the-art implants. Many excellent surgeons around the country, if not the world, maintain that state-of-the-art results can be achieved with many of the companies that produce knee implants. Once again, it comes down to the ability of the surgeon, experience, and appropriate patient selection.

We are in the computer age now and high tech instruments with GPS capability will help intraoperative alignment, rotation and positioning of the implants on the patient’s bone. We continue to strive for excellence, but it always seems to come at more expense. We all hope that the political winds descending on the field of medicine and surgery do not compromise our quest for expertise.
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Patient Portal & Mobile Site

Why Register With Our Secure Patient Portal?

The Federal Government has issued new guidelines regarding a set of criteria that must be met in using Electronic Health Records (EHR) referred to as “Meaningful Use”. In short, the purpose of an EHR is to “provide for the electronic exchange of health information to improve the quality of care”. By registering with our patient portal, you are not only benefitting from convenience, but you are helping us to meet our “meaningful use” requirements.

How Do I Register?

If you are an existing patient but have not signed up for the patient portal:

1. go to louortho.com
2. Click on “patient portal” on the homepage
3. You will be directed to the secure patient portal where you will create a password and username
4. go to “custom forms” & then “pre-registration forms” to fill out demographic, insurance, and emergency contact information

STOP

5. Your paperwork is not complete unless you have filled out your medical history forms, as well as, read, printed & signed your authorization form.
6. You are now ready to start utilizing the many services available & can input more information at your convenience such as payment information, preferences, etc.

If you are a new patient and have supplied us with an email address, then you will receive an invitation in your inbox.

Portal Features Available:

Pre-Register: Paperwork can be filled out at your convenience, saving you from coming in 45 minutes prior to your appointment time. It is now required that you update your information with us every year.

Update Information: Any changes such as billing, address, email communication preferences, etc. can be made through the portal at any time.

Bill Pay: You can make payments at any time.

Ask A Biller: Ask a billing question and have it directed specifically to someone in our Business Office.

Medical Records: Medical records can be uploaded to your portal account as an alternative to picking them up in our office. You can place the request by calling our office or through the medical records request feature on the portal. Please allow 24 hours for your request to be addressed.

Appointment Requests: Select from a list, the provider and timeframe in which you’d like to be scheduled. Please allow 24 hours for a staff member to follow-up to make and confirm your appointment.

Prescription Request: Send prescription requests directly to your provider through your portal account.

Patient Messaging: Using the My Messages section, you can view messages such as MRI results, medical records, etc. Remember, you must place a request for these records to have them uploaded to your account.

3 Ways To Access the Mobile App:

1. Scan the QR code provided at right, or the QR code provided within the Patient Newsletter email blasts.
2. Type in: www.intuihealth.com/smartphone/
3. Go to the app store on your mobile device, search Medfusion Mobile, download & install the free app.

* You must be using your mobile device for any of these actions to work. If you are using a regular computer, it will not work.

** Please Note:** You must have a portal account in order to access the mobile site. If you have not registered with our patient portal, you can go to our website at www.louortho.com and click on Patient Portal where you’ll be directed to set up a secure account.
Louisville Orthopaedic Clinic Welcomes

Venu Vemuri, D.O.

Dr. Vemuri has a particular interest in minimally invasive surgeries. He treats adult and pediatric patients with conditions related to the spine, including, but not limited to, those listed below.

**Conditions:**
- Spinal stenosis
- Degenerative disc disease
- Spondylolisthesis
- Scoliosis
- Herniated Disc
- Bone tumors including metastatic tumors
- Vertebral Osteomyelitis
- Discitis
- Spine fractures

**Procedures:**
- Lumbar/thoracic /cervical fusions
- Lumbar/thoracic /cervical disc decompression
- Lumbar/thoracic /cervical laminectomies
- Scoliosis surgery in adults and pediatrics
- Spinal cord stimulation
- Kyphoplasty Spine fracture stabilization
- Complex cervical reconstruction

Specializes in diseases of the spine with a particular expertise for and interest in minimally invasive spine surgeries.

Dr. Vemuri specializes in the treatment of and procedures related to diseases of the spine. He received the Orthopaedic Student of the Year award for excellence in orthopaedics from Midwestern University’s College of Osteopathic Medicine. Following his position as Chief Resident during his final year of residency in orthopaedic surgery, he went on to complete advanced training in orthopaedic and neurosurgical spine surgery. Dr. Vemuri completed this additional training at Louisville’s Norton Leatherman Spine Center through their Spine Fellowship program.

While Dr. Vemuri is a spine surgeon, he is committed to exhausting all non-surgical treatment options before considering surgical intervention. His primary objective is to help patients get back to enjoying their lives through restoring function from painful spinal conditions. His interest in minimally invasive surgeries is due in large part to increased chances for reduced blood loss, less tissue damage, and a faster recovery time for his patients.

In addition to his medical degree, Dr. Vemuri also has a bachelor’s in Cello performance from Lawrence University Conservatory of Music and a master’s degree in Cello performance from the world renowned Indiana University Jacobs School of Music. He also enjoys maintaining an active lifestyle through activities such as running, skiing, hiking, traveling, golfing, and cooking.
I am often amused by the sighs of relief from my patients after I tell them they don’t need an operation. The reality is the vast majority of patients I see in clinic do not need spine surgery. In fact, up to 90% of back pain resolves uneventfully in one’s lifetime. Rare is the diagnosis that requires “urgent” or “emergent” rush to the operating room such as for existing or impending paralysis.

**Can Deterioration Be Prevented?**

Most conditions arise from an arthritic or degenerative spine. I often remind patients, that at the turn of the 20th century the average lifespan of humans was 45 years of age. Thanks to modern medicine and sanitation that number has jumped to roughly 80 years. Unfortunately, our bodies have not evolved to match that progress and we are left with deteriorating parts. Depressing, isn’t it? In the words of many of my patients; “It sucks to get old!” So what can we do? For the lucky ones who are still young, can this be prevented? Well yes and no. You CAN live healthy by not smoking (FYI: smoking accelerates spinal disc degeneration and smokers have twice the rate of back/neck pain than nonsmokers), eating well, maintaining a healthy weight, and EXERCISING regularly! These measures won’t halt the eventual deterioration of your spine (you can blame a lot of that on your parents, i.e.: it’s hereditary), but you’ll be better off.

**How Do I Manage Painful Symptoms?**

Since there is no cure for arthritis, the best medicine is managing the symptoms. Besides having a healthy lifestyle, regular exercise is proven to ease the symptoms of an arthritic spine. How does this work? Well, strengthening of your body’s core or midsection relieves stress on painful discs and joints in the spine. Stretching tight muscles can lead to more fluid motion of joints further reducing stress on a painful spine. Finally, cardiovascular exercise can pump much needed blood to painful muscles as well as increase pain-reducing chemicals called endorphins. So what are you waiting for? Dust off that gym card and get moving!
So what if you try exercise, heat/ice, physical therapy, medications, etc. and you still have pain? Some conditions I frequently see like spinal stenosis, herniated discs, and spondylolisthesis may require more invasive treatment. These conditions arise from wearing-out of the spine eventually leading to pinched-nerves. For anyone who has experienced a pinched-nerve, they can tell you it’s no picnic and can be extremely painful. Associated symptoms include radiating pain down an arm or leg, numbness/tingling, and sometimes weakness. Another common symptom of spinal stenosis in particular is difficulty standing and walking and the habit of leaning on the shopping cart at the grocery store to facilitate walking. Believe it or not, we call this “shopping cart sign”. Standing upright or even laying flat squeezes the nerves and blocks the nerve signals to the legs. Leaning forward, sitting down, or bending the knees all relieve this squeezing allowing the signals to flow freely and lessen the pain.

Typically I prefer to offer spinal steroid injections before surgery. The results vary widely but the anti-inflammatory effect of the steroid can give much needed relief especially if the nerves are only mildly narrowed. Usually a series of two or three can do the trick. If they last for months it is safe to get injections up to three times a year maximum.

Minimally Invasive Options
If the injections only provide weeks of relief then I will offer surgical options. With new technology and techniques, spine surgery has come a long way focusing now on less invasive ways to accomplish the same goal. I personally am very passionate about minimally invasive spine surgery. Through smaller incisions and muscle sparing techniques, minimally invasive spine surgery can provide faster recovery, less blood loss, less pain, less muscle damage, and decreased infections. Select procedures can even be done outpatient with patients going home the same day. It gives me great satisfaction to treat complex spine problems with minimal disruption to the body.

I always involve my patients in their medical decisions. The vast majority of spine surgeries are elective meaning the patient, not the doctor, chooses to have surgery. I present the pros and cons of surgery and work with the patient to decide if surgery is indicated. After all, it’s your body and YOU are in charge.
Managing and Living with an Arthritic Knee

For the purpose of our discussion, our subject will be limited to Osteoarthritis, the most common form of arthritis. OA is a progressive degenerative joint disease characterized by the breakdown of joint cartilage associated with risk factors such as overweight/obesity, history of joint injury, and age. I will also provide my personal journey from being a very active individual to one that is managing my own arthritic condition.

Modern medicine has many treatment options for those who find themselves limited by OA. On your initial visit to your orthopaedic physician, an exam with X-rays will be performed. You may be prescribed an NSIAD (a non-steroid anti-inflammatory drug), a short course of steroids, possibly an injection of cortisone, and/or a short course of physical therapy. Other nonsurgical options available such as visco-supplementation (a 3-injection treatment) can be helpful. This injection is a gel-like substance made from a substance called hyaluronan. Hyaluronan is a natural substance found in the body and is present in high amounts in joints. These injections supplement the fluid in your knee to help lubricate and cushion the joint. Specialized custom bracing (fig. 1) is available to “unload” the joint with ADLs (activities of daily living) and work. Surgical options such as arthroscopy and total joint replacement are those last steps if conservative management fails.

HERE ARE SOME SOBERING STATISTICS FROM THE ARTHRITIS FOUNDATION®

- Arthritis is the leading cause of disability in the U.S.
- Arthritis strikes 50 million Americans (1 in 5 adults)
- Arthritis is not just a disease of old age, 2/3 of the people are under age 65
- Arthritis causes workplace limitations for 1 in 3 people with arthritis
- Arthritic conditions cost the U.S. Economy $128 billion annually, $80.8 billion in medical expenditures/$47 billion in lost earnings
- Obesity prevalence is 54% higher with arthritis vs. those without
- Arthritis is a potential barrier for adults with heart disease or diabetes who are attempting to manage their condition through physical activity
We in the medical profession must discuss the proverbial “elephant in the room”, that is, obesity. My joint decline started in my late 20s; a knee injury forced me into an arthroscopy. I recovered well and returned back to full activities. As the years went by, three more arthroscopies followed, forcing me into more sedentary activities. Weight gain followed, further exacerbating my knee pain. In the end, I found myself thirty pounds over my ideal weight and my BMI placed me in an obese category. X-rays also confirmed my suspicion of a narrowed joint space medially and in the patellofemoral area, secondary to the fact that I have developed a varus knee deformity (bow-legged). (Refer to figures 2 and 3 regarding my X-ray changes). Research has shown that, for every one pound of weight gain, there is a four pound increased load across the knee. My 200+ pound frame was adding an abnormal stress across my joint.

I had not yet had to rely on medications or injections to get through the day but I had to be careful with any weight-bearing activities such as excessive walking, prolonged standing, stairs, squatting, and kneeling. I felt that I was at a crossroads; one road led to a drastic change in lifestyle and managing my joint concerns, or I could continue down a path with an unresolved weight issue and treatment that included relying only on a pill or an injection to make me feel better. Surgical options were looming in the near future. In January, I embarked on my program of non-weight bearing exercises and sensible eating. I find myself down thirty-one pounds. The 1:4 ratio mentioned above means I have decreased my joint stress by 124 pounds with every step. Think about it, the accumulation in knee load for a one pound weight loss would be 4,800 pounds per mile walked. A ten pound loss would subject the knee to a 48,000 pound less compression load per mile. You can do the math. When this information is taken into account over the accumulated steps/standing during the day, researchers feel that this has a significant impact on the progression of OA. Ultimately, this translates into standing longer and being able to walk farther with ADLs or functioning at work. This does not mean I can go back to engaging in activities that include running, jumping, and pivoting. Referring back to my X-ray findings, being asymptomatic does not mean my knee is well. I have to respect the fact that I will never get back that joint space, and the spurs that have formed will never go away. It does mean for me that, as a junior high football joint, I can stand on the field for three hours and run through drills without having to worry whether I can get out of bed the next day.

My workouts have shifted from running and weight lifting to cycling. For me, this has provided the outlet to push myself for hours at a time without any joint discomfort. Cycling has also turned into a very social event where five to six guys will do a fifty mile ride on sunny weekends.

As physicians and therapists, managing our clients with OA, weight/obesity must enter the conversation. Medication, injections, bracing, and exercise are all part of the equation, but getting the joint stresses off have to be our primary focus.
Lauren Haas sustained a season-ending ACL tear while playing Varsity soccer for Sacred Heart Academy during her sophomore year. After ACL reconstruction by her team physician, Dr. Kuiper, Lauren vigorously rehabilitated her knee at the Louisville Orthopaedic Sports Rehab Center. Lauren not only scored during her first game back, but also lead SHA to the State Championship game while earning a place on the All State Tournament Team as a defender. Congratulations Lauren!

**Fast Facts: Shoulder Dislocations**

BY: J. STEVE SMITH, M.D.

- The shoulder is a ball and socket joint that is inherently unstable. Think of a golf ball on a tee.
- A dislocation of the ball (the humeral head) from the socket (the glenoid) accounts for nearly 50% of all major joint dislocations.
- The vast majority of separations are violent, traumatic injuries. However, some shoulders are naturally unstable and can dislocate with any serious force.
- The ability of “the golf ball to remain on the tee” is due to ligaments, capsular tissue, cartilage (labrum), and muscles.
- When the shoulder dislocates, there is often damage to the labral cartilage, the ligaments, the rotator cuff muscles or bones. It is rare for a shoulder dislocation to not damage the overall ball and socket joint.
- Treatment of shoulder dislocations is catered to the individual patient and often depends on the extent of injury and damage to the shoulder.
- Younger patients have a much higher rate of recurrent instability. Older patients have a much higher incidence of rotator cuff tears.
- Initial treatment begins with a sling, ice, and pain control followed by gradual motion and physical therapy. Often, your surgeon will order a MRI to evaluate the damage to the soft tissues and bone.
- Surgical treatment may be advised once all data is compiled and applied to each individual situation.

Clay Schaefer had arthroscopic shoulder reconstruction during his junior year at St. X High School after sustaining multiple dislocations while playing defensive tackle for the football team. He returned and played his senior season leading St. X deep into the playoffs. Recurrent injuries to this shoulder lead to bone loss requiring Dr. Kuiper to perform a Latarjet procedure that restores bone loss on the socket and add a “sling” like support to the shoulder. He is now fully recovered and back to vigorous sports while pursuing an engineering degree at UofL Speed School.

**George Dailey**

Football player for DuPont Manual High School

Dr. Richardson, team physician for DuPont Manual High School, is seen here with Manual Football player, George Dailey. The full story on George’s injury, surgery, and recovery can be found on page 22.

J. Steve Smith, M.D., team physician for Ballard High School and North Oldham High School, shown here on the field during Ballard football games.
Louisville Orthopaedic Clinic
Celebrating 40 Years

Check-Out 1998
Susan & Starr

Reception area 1980's

LOC 3rd floor lobby, 1970's

Sports Rehab Center, early 1990's

LOC reception area, 1970's

Sports Rehab Center, 1990's

Mid to Late 1970's

Dr. Lewis's 40th Birthday at LOC

LOC

LOUISVILLE ORTHOPAEDIC - OVER THE YEARS
Dr. Lehmann & Kathy, Sally & Dr. Eggers LOC Holiday party 2011

Kathy Lehman, Deb Quill, Chris B. (phones), Dr. Quill LOC, Holiday party 2011

LOC, Holiday party 2011

K. Hamilton, PA-C, and advisor, Patti E.

Dr. Eggers and wife, Sally, 2006

L. Edmonds, APRN, and husband Curtis 2011

The Pink Ladies with Dr. Lewis, 1996

Halloween, 50's theme 1996

The Pink Ladies, 1996

Dr. Eggers, with doctors advisors
Advisors in the picture currently with LOC: Shannon (back row, second from left, Laura (front row on right) and Patti (front row, second from right)

Dr. Kuiper and wife, Mary Jude, LOC Holiday Party, 2011

L. Edmonds, APRN, and husband Curtis 2011
Integrated Spirituality: An Innovation

By Dianne H. Timmering
Vice President of Spirituality and Legislative Affairs

Health care costs in the United States are rising. While the increase may have slowed some in recent years, the inescapable fact is that healthcare costs are confronted with the ominous pendulum swing, the back and forth of the science of the experiment, of for example, ACOs and other cost sharing techniques, bundling, hopeful studies, to mitigate the churn and costs of inevitability.

All of this is changing the landscape of care for patients while placing additional financial pressure on health care providers. These changes demand that those same health care providers create innovative, patient approaches to care.

The “injection” of spirituality as more than a service of prayer but as a care-planned intervention of healing is a low-cost innovation that we launched in 2006. With almost a decade-tested model, the power of spirituality as a medical input of opportunity has evidentiary based hope.

Early on, we saw anecdotal moments of patients finishing their therapy simply because they were encouraged by a spiritual quality, an essence of empowerment that reached into their state of loneliness and sorrow of condition and believing in the resurgence of faith in the belief that wellness mattered and change of condition was possible. Doubt and uncertainty around circumstance we found could circumvent healing. Remembrance and reminders of why they mattered, prayer in the ethereal of the tangible of faith’s presence began to infuse the possible into the physical.

In 2008, a Signature HealthCARE study conducted at Signature’s Erin, TN facility found further evidence of the impact chaplains can have in a rehabilitative setting. The study monitored all therapy patients’ rehab sessions for a period of fourteen days, with a particular eye on those specific patients who had developed a reputation for often refusing to attend their therapy sessions or leaving before their full amount of scheduled time was completed. These therapy sessions were scheduled after it was determined that therapy would be helpful or was needed for the resident based on the resident’s clinical need and/or as prescribed by the resident’s physician. Over the period of time of the study, intervention by the Chaplain resulted in zero missed therapy appointments for the patients in question during the entire 14-day study period – meaning the unique relationship between patient and chaplain encouraged the patient to complete his or her therapy as prescribed based on clinical needs or as prescribed by a physician.

Spirituality is a ‘now’ solution to assess and heal spiritual pain and impact sickness. It is a means to not only inhibit disease or injury but unleash the hope of wellness from anxiety or uncertainty where doubt is a great evil which hinders even the desire to get better or to try. Spirituality is an effective innovation for real-time cost containment and patient value; our model, built around a full-time, dedicated chaplain with the training and tools to achieve, and a commitment to the fabric of the spiritual in collaboration with the interdisciplinary team.

Through a full-time Chaplain program that provides inter-faith spirituality initiatives in rehabilitation and nursing centers, spirituality has a tremendous impact. It affects not only clinical outcomes, but also family grievances or concerns, staff engagement and other key metrics.

As related in a recent article in the Journal of Health Care Chaplaincy, the authors referenced a 1991 Patient Satisfaction study with a sampling of over 400 patients which compared the satisfaction of visits conducted by social service workers, facility representatives, other clergy (volunteers) and the on-staff chaplain and the results were clear: “patients rated chaplains’ visits as being the most important, and having the highest attainment of expectations.”

The Signature full-time Chaplain Corps, 80 plus strong, is a company cornerstone. Full-time Chaplains serve with hope and humility, striving to meet patients, employees and family members where they are, at the point of their very need. Our mission is to bind up the brokenhearted and help heal the sick and aging, frightened and disoriented.
A comfortable and secure retirement is every worker’s dream, yet for many people, thinking about it can be overwhelming. Retirement is a goal to be relished, and the key is to be prepared. Answering these questions can help you figure that out.

1. **How do you want to spend your retirement?**
   If you haven’t started to think about it yet, now is the time to figure out how you would like to spend your days in retirement. Will you be travelling? Playing golf? Volunteering your time? Maybe start your own business? Having a clear vision will assist in calculating the finances you will need to live comfortably while enjoying your days in retirement.

2. **Have you created a retirement plan?**
   With advances in technology and medicine, Americans are living longer. According to the Social Security website, the average life expectancy for a man turning 65 today is 83, and for a woman it is 85. This is an optimal time to meet with a Financial Advisor who can assist in building a diversified portfolio designed to help provide for long term growth while keeping pace with inflation. Do not forget to budget for increasing health care costs.

3. **Will you outlive your assets?**
   Social Security is your first line of defense against outliving your savings as your payments will continue for the rest of your life, however, you may want to consider delaying taking payments until age 70 to receive 76% more than if you collect at age 62. Paying off your mortgage prior to retiring will eliminate one of your largest monthly bills and allow you to tap into your equity in cases of emergency. Talk to your Advisor about what percent of your savings you can withdraw annually during retirement. Disciplined investors may be able to gradually draw down their savings in a way that will likely last as long as they live.

Achieving the dream of a comfortable, secure retirement is much easier when you plan your finances. Engage your spouse to envision how you each plan on spending your later years and how you will finance your activities. Deciding together now will make you both happier in the long run.

For more information, contact Merrill Lynch Financial Advisor Christopher L. Sprenkle in the Cincinnati, Ohio office at 800-919-3618 or chris_sprenkle@ml.com.
Don Strotman
On January 23 2013 Dr. Eggers replaced my left hip when I was 75 years old. After some time and rehab I feel like a new person thanks to him and his team. I am back doing the chores around the house and yard that were neglected for a while. Seven family members and I have been season ticket holders to U of L football for many years and I got to the point where walking into the stadium was something I didn’t look forward to. Since the operation I not only walk to the stadium but have adopted a 60 pound Lab, Pit Bull from the Humane Society in November that I walk 3 or 4 times daily. I say thank you to you and your team for the great work that you do.

Nancy Crouch
Dr. Lehmann is the very best. He just did a selective epidural on Feb 21 and I feel like a brand new person. He, along with Dr. Norman Lewis, is my hero. They truly know what they are doing and care about you as a person. A big thank you.

Dolly Anderson
Following many years of bone and joint issues, I finally decided I needed to do something about it. As a child, I was a ballet dancer, gymnast and runner and had continued to run and work out at the gym all through the years. Unfortunately I started to feel the arthritis in many of my joints. My first appointment was with Dr. Quill regarding my feet. I told him I was going to start at the bottom and work my way up! After joint fusions on both of my large toe joints, I started receiving injections in my knees from Melissa Parshall, P.A. for Dr. Kuiper. This worked for several years, but then the relief started subsiding. Melissa looked at me one day and said, “You really need to consider knee replacement”. I told her that at 55 I thought I was too young. Her response of “you may be 55 but your knees are 75” shocked me and made me realize it was time. Dr. Goodin replaced my left knee in January 2013 and my right knee in December of the same year and I can truly say it’s the best thing I’ve ever done. The patience and concern that Drs. Goodin and Quill showed was amazing. Any time I had an appointment with either of them, I always felt like they had all the time in the world to answer my many questions – they were never rushed. Any questions and concerns I had for the staff were answered quickly and with a smile. I’m nine weeks post op and finally pain free and back to work and the gym (no running though) and feel like I have my life back. Thank you Melissa for talking me into it!
Jimmy Bryant
My name is Jimmy Bryant. I am a 67 year old retiree of the CSX Railroad. I am a high school sports official and have been officiating for 44 years. In July of 2012 I went to Dr. Goodin of Louisville Orthopaedic Clinic concerning pain in my right knee. After some treatment, together with Dr. Goodin, I realized it was time to get a knee replacement. My knee was shot! Officiating basketball is something I really love doing and just knew that this would end my career. Dr. Goodin told me that I should still be able to referee if I did what they told me. I had the surgery in July 2012 and by the first week of August I was officiating high school volleyball, and by the second week of November, I was officiating high school basketball. I had a limp from a torn ACL in 1986 and after replacement surgery, my limp was gone, the pain and aches were gone. I feel like a teenager again. I am so grateful to Dr. Goodin and the entire staff at Louisville Orthopaedic. They have been there for me all the way. Thanks to them and the therapy I received I am blessed to enjoy life doing what I want to do, pain free.

Judy Butler
There is a jingle from an automobile ad that says: “Let’s Go Places.” I am adopting this as my rallying cry! My name is Judy Butler and Dr. Richard Sweet has given me total knee and hip replacements so that I can go places! I am able to go on outings with my Red Hat ladies, trips with my church friends and frequent the gentle hills of the Louisville zoo with my daughter and great granddaughter without the crippling pain that kept me from enjoying these simple activities! My energy level is wondrous since my surgeries! My tiredness at the end of the day is a healthy tiredness and I no longer feel sapped from the pain. Dr. Sweet is an excellent surgeon! His skill and knowledge has returned to me the pure joy of walking and enjoying life. Thank you so much Dr. Sweet!

Edward Cox
I work in the 911 Center in Louisville. My boss, Mindy, has been my boss/friend for all 18 years I have been here. After my surgery, before I returned to work, I stopped in to say Hi to everyone and thank them for their prayers during my surgery and recovery. When I walked into the 911 Center, Mindy started crying as soon as she saw me walking towards her. She had never seen me walk without a limp and struggle! She was overjoyed for me! My quality of life since Dr. Sweet replaced my left knee has skyrocketed! To be pain free is unbelievable! I can do almost anything I want, and some things I don't want to do! Sincere Thanks Dr. Sweet and the awesome staff at Louisville Orthopaedic, and the nursing staff at Baptist East! Everyone treated me like I was their only patient. What a blessing to have been touched and cared for by such wonderful talented and gifted people!

Brenda Dawson
At 62, I never dreamed a total shoulder could heal so quickly, and not be very painful, but I am stronger than ever, and the mobility is amazing. I stay active, and Dr. J. Steve Smith did such a great job. I’ve been sending folks to see him. He is the best! Thank you. Thank you.
Nancy Cissell

Sending kudos with regard to the treatment that I received through the Louisville Orthopaedic Clinic. I fractured my right foot (5th metatarsal fracture) in 5 places because of a fall down a flight of steps. On November 25, 2013, Dr. George Quill surgically repaired my foot. Being an active person, I was encouraged to do alternate exercises to keep up my strength. Each week that went by, I could tell that I was getting stronger. By mid-January, the crutches and boot were put away for good. Being able to walk independently allowed me to get out and enjoy the February snow this winter. Currently I am walking 4-5 miles every other day and look forward to trail running in the spring. I also want to commend the use of the Patient Portal. Whenever I had a question, I would use the Patient Portal to send an email. The big surprise for me was having my question answered with a follow-up phone call within 24 hours.

Bruce Bales

My name is Bruce Bales. I just turned 68 years old and currently reside in California and North Carolina. Dr. Ernie Eggers performed my first hip replacement in 1992 when I was 48 years old, residing in California, and the Agent in Charge of Former President Ford’s Secret Service detail. My hip was so bad by then the joke on the Detail was that “pretty soon President Ford was going to have to get out of the back of the Limo and help me out!” Dr. Eggers cured that problem with his innovative custom hip replacement technique. That, amazingly, was over 20 years ago. In 2002, Dr. Eggers replaced my other hip and re-opened the first hip in order to replace the plastic cup and ceramic ball he put in in 1992 (it would have to have been done eventually and I wanted to get it all over with at once). That second hip is now 10 years old and I have never had a problem with either hip replacement. Since 1992, I have remained extremely active. Still play some tennis on occasion (don’t tell Dr. Eggers!!), lots of golf, work out 5-6 days a week, and ride a mountain bike and road bike a thousand plus miles a year. Dr. Eggers is, of course, my hero and the best at what he does and he, with the assistance of Louisville Orthopaedic, has provided me with a continued active life, without pain, for many years now. I am extremely grateful for that and for his skill. He and his team are simply the best, which is why I traveled from California to Louisville on both occasions for my hip replacement surgery.

Beverly Wingham

I had a left total Knee replacement 10/18/2011 performed by Dr. Robert Goodin. The quality of my life has definitely improved because of my new knee. I am no longer in pain all the time and I can actually do more of the things I want with my family, friends, and pets. Dr. Goodin and the staff at Louisville Ortho are wonderful. My surgery went well and therapy was started right at the hospital the next day. I had home and out-patient therapy for a while. (I worked really hard!) It was all worth it! My knee hasn’t worked this well for a long, long time. I am able to get more exercise, do everyday tasks and generally just be a normal person now. I would totally recommend Louisville Ortho and Dr. Goodin to anyone who needs a joint replacement.
Douglas Conway

I have been a patient of Dr. Sweet for many years. I originally suffered a major knee injury playing intermural flag football at the University of Kentucky in 1975. Due to my, as Dr. Sweet puts it, ‘active lifestyle’ I continued to tear my meniscus in both knees as I was playing very serious men's softball up to 5 days a week and running/jogging several miles weekly. Over the years of wear and tear I ended up bone on bone in both knees. I have also been a high school baseball coach at Jeffersontown High School since 2001. In addition to coaching baseball I do a lot of hunting and have a 1964 MG Midget race car I like to play with. It got to the point where I could not walk from the dugout to the coaches' box without my knee locking up or totally collapsing. As a school teacher before my knee replacement surgery I would actually fall on my students when my knee would lock up or collapse. The pain was severe (15 on the 1 -10 scale) constantly every waking minute of every day. We have had to do several surgeries over the years mainly due to patient stupidity BUT I actually enjoyed deer season this year as I could walk around the farm some and while banned from hitting infield by our head coach, I can move around the baseball field. I am still having some discomfort in my left knee and I feel that will go away with a little more time, riding my exercise bike and ice therapy. Dr. Kuiper also repaired my left shoulder in 2001 after I dove for a line drive playing softball and dislocated my shoulder along with tearing the labrum; Dr. Sweet had previously repaired my right shoulder due to a softball injury. Any time I have needed him Dr. Sweet, Kate, and Patti along with the rest of the staff have been there for me. As far as I'm concerned Dr. Sweet is one of the best orthopaedic surgeons and/or doctors there are and I continue to recommend him and the Louisville Ortho Clinic to anyone with knee pain. Without his expertise and caring I would probably be in a wheelchair (a 300 horsepower wheelchair) but I know I would have little or no mobility.

Irene Bouteiller

My name is Irene Bouteiller and I have been a patient at Louisville Orthopaedic group since about 2007. I was having a lot of pain in my knee and my daughter suggested I call Dr. Sweet who was in the same office of Dr. Quill her doctor. I made my appointment with Dr. Sweet and as soon as I met him he put my mind and any concerns I had at ease. After x rays to see what was going on he decided I would need a total knee replacement. To make a long story short, Dr. Sweet preformed a total knee replacement and, I felt like I had my life back. The surgery was a great success , so when I began to have a lot of pain in my left foot , a few years later, I did not hesitate to go back to the Louisville Orthopaedic group. The difference this time, I made an appointment with Dr. Quill. After he took x rays, it showed that my foot was turning over and it was causing the pain and keeping me off balance. Dr. Quill tried several things to see if they would work before deciding what would have the best outcome for me. Then he explained that in order to fix it, I would need major surgery and that would require a long recovery. I was almost 74 at the time and I knew I did not want to wind up in a wheel chair. (I am too young) I said OK. I had a lot of confidence in Dr. Quill, so in April 2013 I had the surgery on my foot. This required 3 screws implanted in my foot to straighten my heel and align my foot .This was performed with a great success. I like to tell people now I have a bionic foot. I never had much pain and would do it again if needed. I think Dr. Quill is so knowledgeable and skilled and best of all for me, a very caring doctor. I would recommend him to everyone I know. His assistants Lori and Nicole were so nice and always ready to answer any questions I might have. I think the Louisville Orthopaedic group has the cream of the crop, when it comes to the Best Physicians Specialist's in their field. This also includes all of the other members of their team. Thank you!
Jenny Dobson, RN, MSN, CLC, CCE - Director of Women's Center/Nursery

I am a director of a Women's Center, which includes labor and delivery and newborn nursery. I have been a nurse for 19 years and worked in a regional hospital for 26 years. Needless to say, I have put a lot of miles on my knees and hips. In 2008, at age 44 I was diagnosed with Rheumatoid Arthritis, and was not sure what was ahead of me.

I started having difficulty with my right knee in 2012. I just passed it off as a strain. I got up one morning and couldn't stand to walk on my right knee. I had an appointment that day with my rheumatologist. They referred me to Dr. Ty Richardson at Louisville Orthopaedic. He x-rayed it and told me that I needed to have knee replacement at some point, however he recommended doing arthroscopy on my knee and this would borrow me some time before I would have to have knee replacement. I had the arthroscopy done and was back to work in 3 weeks without any pain. It was wonderful.

In 2013, I started having pain in my hips, the left was the worst. I made an appointment with Dr. Sweet at this time because Dr. Richardson didn't do hips. I think it is great that the physicians with this group specialize in certain joints. Dr. Sweet x-rayed my hips and told me that I needed hip replacement. I was totally shocked, because I thought that I would just get the joint injected or maybe some steroids and I would be better. However, he told me the facts. He could inject it, but I would get very little relief from the injections because of needing replacement. Actually, both hips needed replacing, but the left one was hurting the worst at this time. I thought about it and made the decision to have it replaced. I really dreaded it, but you know nurses make the worst patients. I had my left hip replaced in November of 2013 and when I woke up from surgery, I could tell that the pain was gone. Yes, I had some soreness and a little surgery pain, but this was nothing like the pain I had had for several months. I left the hospital in 2 days and in one week I was walking ½ of a mile per day. In two weeks, I was up to walking 1 mile per day and was back to work in 6 weeks, pain free.

I started having the same type of pain in my right hip as I had in my left hip in February, 2014. I went back to Dr. Sweet and I will have my next hip done in June 2014. The staff at Louisville Orthopaedic has always been very friendly, polite and willing to help with questions or concerns. I know that somewhere down the road that both knees will have to be replaced as well, and yes I will return to Louisville Orthopaedic to have them done by the best of the best! Thank you Louisville Orthopaedic for helping me stay mobile!!

Dorothy Ledington

I am a veteran patient of Lou Orthopaedic. I have had joint surgeries performed by Dr. Kuiper, Dr. Quill (2) and Dr. Sweet (2) hip replacements. Last year in March during a regular re-check. Dr. Sweet was instrumental in my decision to do something to help myself. I completely changed my lifestyle, lost 80+ pounds, began exercising and have just completed the first leg of the Triple Crown of Running (walking briskly for me) and am looking forward to the 10k and 10 miler. These doctors are my heroes!

* At the time our magazine went to print, Dorothy accomplished her goal of completing the 10k, 10 miler, and the KDF Mini Marathon.
Jeff Frazier
Dr. Smith operated on my shoulder after I was thrown from my bike while training for the Ironman and had my arm torn away from the rest of my body. After following his instructions for rehab, I was able to participate in the 2013 Ironman a year after my operation and I finished the swim in a personal best time of 1:17:00.

Jared Wheatley
A normal 17 year old probably would find it hard to imagine what it would be like to walk with a limp and what it’s like to go through intense physical therapy and various surgeries, but for me, at 17, this was a reality. On October 9th, 2011, I was in a serious head on collision—this resulted in severe injury to my left knee and also a fracture to a portion of my femur. I went through several surgeries at University Hospital, and after my arrival back at home I began going to physical therapy 3 times a week and also did therapy at home almost constantly. I was working so hard, yet I was gaining very little movement because even though I was working hard every day, over time, I had total cartilage depletion, this made my limp even worse because I was in constant pain when I walked. I felt as if everywhere I went people were staring and judging me; I couldn’t live the life of a normal 17 year old and to me this was extremely discouraging. After seeing several doctors and being displeased, I was ready to give up. These doctors said there was nothing they could do for me; I was too young for a knee replacement; I was left with virtually no hope of normalcy. Finally, I found Dr. Ernest Eggers of Louisville Orthopaedic Clinic. As we left our first visit, I was so uplifted with hope; meeting Dr. Eggers that day truly changed my life. On June 25th 2013, Dr. Eggers performed a total knee replacement. After his tremendous work, I got my life back. I no longer woke up in pain; I no longer had a limp, I was no longer an outcast amongst people my age. Mobility is no longer a problem, and I now have the confidence to believe that I can overcome any obstacle thrown my way! I have Dr. Eggers to thank for that! I would most definitely recommend Dr. Eggers and the Louisville Orthopaedic Clinic to anyone in need of this type of procedure; they are truly gifted individuals who genuinely care about their patients.
Dr. Yakkanti has a particular interest in minimally invasive hip and knee replacements with emphasis on accelerated rehabilitation. In addition, he treats adult patients with fractures and related conditions, including but not limited to those listed below.

**Conditions:**
- Adult fractures resulting from falls or motor vehicle accidents
- Fracture complications - non-union, malunion, joint stiffness, arthritis
- Hip arthritis, hip pain, hip stiffness, hip avascular necrosis
- Knee arthritis, knee pain, knee stiffness
- Adult limp
- Failed hip replacement
- Failed knee replacement

**Procedures:**
- Total hip replacement - primary and complex
- Total knee replacement - primary, complex, computerized navigation
- Revision hip replacement
- Revision knee replacement
- Open reduction internal fixation of fractures
- MIPO - minimally invasive plate osteosynthesis
- Repair non-union and malunion

Dr. Yakkanti specializes in the area of fracture management and total joint replacement. He completed his Orthopaedic Trauma Fellowship and Adult Reconstruction Fellowship at the University Hospital and Jewish Hospital in Louisville. He has extensive surgical training and experience in managing complex and complicated fractures, as well as, hip and knee replacements. By virtue of his experience he has a special interest in managing geriatric orthopaedic fractures.

Dr. Yakkanti has a long association with teaching the art of Orthopaedic surgery. He was awarded the best resident teacher award on multiple occasions in his role as assistant professor of Orthopaedics at the University of Louisville. He regularly communicates with his peers, students and teachers regarding management of complex orthopaedic problems. He participates in annual academic meetings of Orthopaedic societies on a regular basis. He is a member of numerous medical and professional societies and associations.

India is Dr. Yakkanti’s birthplace, as well as, where he earned his basic medical education and completed his Orthopaedic residency training. He went on to complete advanced training in managing complex fractures and poly trauma at the University of Louisville. He then completed the adult reconstruction fellowship at the University of Louisville. Dr. Yakkanti is board eligible by the American Board of Orthopaedic Surgery.
To serve your needs our facility consists of eleven orthopaedic surgeons, four physician assistants, and two nurse practitioners. Our surgeons are board certified in orthopaedic surgery and have completed specialized training in custom total joint replacement; arthroscopic procedures of the knee, shoulder, and ankle; surgery of the spine; foot and ankle disorders; sports medicine; and orthopaedic fracture management. To better accommodate the needs of our patients, we have an open MRI, outpatient surgery suites, and a physical therapy department. Digital X-ray equipment and registered technicians ensure the highest quality images possible to aid in the diagnosis and treatment of our patients.
ERNEST A. EGGERS, M.D.

Dr. Eggers is the area's first physician to perform knee and hip replacement surgery. He is considered a foremost expert in the study of joint reconstruction and is approaching 16,000 hip and knee replacement surgeries. His counsel has been sought by manufacturers of joint implants from many companies and has taken him to Germany, England, Belgium, France, and Canada. Another symposium was held in Johannesburg, South Africa, for the orthopaedic congress of that country.

Dr. Eggers has particularly specialized in the treatment of younger hip and knee patients with improvement in cementless fixation and metal articulation. He was one of the first in the country 17 years ago to perform an FDA study on metal/metal hip replacement. Dr. Eggers has been involved in many symposia through the years involving orthopaedic surgeons, surgical equipment personnel, patients and nurses. This has involved presentations including complete and partial knee replacements and hip replacements, both traditional and custom. He helped to promote the use of custom implants with large patients many years ago, both in the hip and the knee.

Dr. Eggers was regarded as a top orthopaedist in joint replacement by the Consumer Research Counsel of America beginning 20 years ago. The last award was in 2010. He began minimal invasive procedures on the hip 30 years ago and in the knee approximately 15 years. Minimal invasion wound infers the smallest approach to hip or knee that can correctly address the surgery. His specialty includes all age ranges of patients and includes several implants from different companies according to the needs of the patient.

Dr. Eggers is a native of Indiana and served in the United States Navy. He completed his internship and residency at the University of Louisville. He has studied hip surgery where it started in England and Switzerland. He is a member of many local and state societies, The National Society for Arthritic Joint Surgery, Association of Hip and Knee Society, and the Academy of Orthopaedic Surgeons. He is board certified in orthopaedic surgery.

NORMAN V. LEWIS, M.D.

Specializes in surgery of the knee and is accomplished in ligament reconstruction.

Dr. Lewis specializes in the treatment of knee problems, including injuries and arthritis. He has performed over 15,000 knee surgeries since 1976. This includes total knee replacements and arthroscopic procedures. He has also treated numerous patients with the use of RF Wand technology to perform percutaneous discectomy for herniated disc. He attends study groups and seminars all over the country to seek the most current and innovative surgical techniques.

Dr. Lewis is a Kentucky native and is a graduate of the University of Kentucky Medical School, where he earned his medical degree and also completed his residency. He served in the United States Navy after his internship. He is board certified in orthopaedic surgery, and is a member the Kentucky Medical Association, Jefferson County Medical Society, and Kentucky Orthopaedic Society, as well as American Medical Association and American Academy of Orthopaedic Surgeons.

RICHARD A. SWEET, M.D.

Dr. Sweet specializes in the area of total joint replacement. He completed the Aufrank Reconstruction Fellowship in joint replacement surgery at the New England Baptist Hospital in Boston. He has been involved in both clinical and scientific research in this field, which has included implant and instrument development for hip and knee replacement surgery. These research and development efforts have focused particularly on minimal incision techniques. An avid teacher, he often conducts seminars on the subject of total joint replacement for both medical personnel and the community at large. This includes physician cadaver lab teaching of minimal incision total knee replacement and total hip replacement surgery. He has a special interest in sports medicine and particular expertise in knee reconstructive surgery.

Dr. Sweet was born in Kentucky and earned his undergraduate and medical degrees at the University of Kentucky. He served his residency at the University of Louisville. He belongs to all the state and local medical societies and is board certified in orthopaedic surgery.

GEORGE E. QUILL, JR., M.D.

Dr. Quill is one of the region's first fellowship-trained orthopaedic surgeons sub-specializing in disorders of the foot and ankle. His academic appointments are quite numerous, and many awards and honors have been bestowed on him. His research and writings on the subject of the foot and ankle have been extensive, including seventeen published articles, five book chapters, and Academy-sponsored instructional videotapes and DVDs.

He gives many scientific presentations each year on the subject of foot and ankle disorders, and is a member of the clinical faculty at the University of Louisville School of Medicine. Current interests are in foot and ankle reconstruction and orthopaedic device development. Dr. Quill is a consultant to numerous orthopaedic implant manufacturers, and he maintains an interest in implant design and orthobiologic research.

Dr. Quill was born in Chicago, Illinois. He attended the University of Notre Dame, earned his medical degree at Northwestern University, and completed his residency at Chicago's Rush-Presbyterian-St. Luke's Medical Center. His fellowship was completed in Baltimore at Union Memorial Hospital. He is board certified and voluntarily re-certified in orthopaedic surgery.

SCOTT D. KUIPER, M.D.

Dr. Kuiper specializes in shoulder, knee, and elbow arthroscopy, as well as the treatment of athletic-related injuries. He completed his fellowship training at the world-renown American Sports Medicine Institute in Birmingham, Alabama. He participated in the care of Auburn athletics and cared for numerous NFL, NBA, and NHL athletes with his mentors James R. Andrews, M.D. and William Clancey, M.D. Dr. Kuiper has published basic science research on ACL reconstruction, book chapters on PCL reconstruction, and a number of peer-reviewed papers on shoulder surgery. He has helped to develop state-of-the-art implant devices for rotator cuff and labral repair. He has been voted a Louisville Magazine “Top Doc” for orthopaedic surgery several times and, most recently, he was selected by his peers as one of Louisville Magazine’s “Top Surgeons” for Knee Arthroscopy, ACL Reconstruction, and Shoulder Arthroscopy.

Dr. Kuiper earned his undergraduate degree at DePauw University and attended the University of Louisville School of Medicine. He completed his residency, as well as an Orthopaedic Research Fellowship at the University of California, San Diego. He then completed an Orthopaedic Sports Medicine Fellowship under the direction of Drs. James R. Andrews and William Clancey in Birmingham, Alabama. He is board certified in orthopaedic surgery, and is a fellow of the American Academy of Orthopaedic Surgeons and a member of the American Orthopaedic Sports Medicine Society, as well as other national, state and local medical societies.

Dr. Kuiper is the team physician for St. Xavier High School and Sacred Heart Academy. He is a consultant for Spalding University and Indiana University Southeast baseball teams.

THOMAS R. LEHMANN, M.D.

Dr. Lehmann is nationally recognized for his research and expertise on diseases of the spine and has received many prestigious awards, including the coveted Volver Award presented by the International Society for Study of the Lumbar Spine. The acclaimed Acromed Award, presented by the North American Spine Society, was bestowed on him twice. He has published numerous abstracts, chapters in books, and research papers, and has made many presentations relating to the area of the back. He is an associate editor of the journal SPINE.

Dr. Lehmann attended Flaget High School in Louisville and received his B.S. from the University of Notre Dame. He earned his medical degree at the University of Louisville and completed his residency at the University of Texas. He completed a fellowship in spine surgery at Tulane University prior to assuming his teaching responsibilities as a professor at the University of Iowa. He is board certified in orthopaedic surgery.

Dr. Kuiper attended Flaget High School in Louisville and received his B.S. from the University of Notre Dame. He earned his medical degree at the University of Louisville and completed his residency at the University of Texas. He completed a fellowship in spine surgery at Tulane University prior to assuming his teaching responsibilities as a professor at the University of Iowa. He is board certified in orthopaedic surgery.
Dr. Goodin is a Louisville native earning his medical degree and completing his orthopaedic residency at the University of Louisville, where he received numerous honors and awards. He has done extensive research and presentations in hip and knee techniques. He also completed the Adult Reconstruction Fellowship at Indiana University Medical Center.

Dr. Goodin became board certified by the American Board of Orthopaedic Surgery in July 2004. He is a member of local and state medical and orthopaedic societies, as well as the American Academy of Orthopaedic Surgery.

Dr. Richardson specializes in orthopaedic sports medicine and athletic injuries. He attended Baylor University and earned his medical degree at the University of Texas Medical Branch. He completed his orthopaedic residency at the University of Louisville, receiving numerous honors and awards. He has done extensive research and presentations in orthopaedic trauma.

Dr. Richardson attended an Orthopaedic Sports Medicine Fellowship at the Hughston Clinic in Columbus, Georgia. He is board certified in orthopaedic surgery. He is currently the team physician for Manual High School.

Dr. Smith is the Medical Director of Baptist Sports Medicine. He is also the team physician for Ballard High School and North Oldham High School. In addition, he was on the medical staff of the LA Lakers, LA Dodgers, USC Football Trojans and numerous other collegiate and high school sports teams. He has published numerous research papers, abstracts, and has made presentations relating to the advancement of arthroscopic surgery in sports medicine.

Dr. Smith is a native of Kentucky earning his undergraduate degree at Western Kentucky University and attending the University of Kentucky College of Medicine. He completed his internship and residency at the University of Rochester in New York, and then completed his orthopaedic sports medicine fellowship at the Kerlan-Jobe Orthopaedic Clinic in Los Angeles, California. He is board certified in orthopaedic surgery and is a member of many national, state, and local medical societies.

Dr. Yakkanti specializes in the area of fracture management and total joint replacement. He completed his Orthopaedic Trauma Fellowship and Adult Reconstruction Fellowship at University Hospital and Jewish Hospital in Louisville. He has extensive surgical training and experience in managing complex and complicated fractures, as well as hip and knee replacements. By virtue of his experience he has a special interest in managing geriatric orthopaedic fractures.

Dr. Yakkanti has a long association with teaching the art of Orthopaedic surgery. He was awarded the best resident teacher award on multiple occasions in his role as assistant professor of Orthopaedics at the University of Louisville. He regularly communicates with his peers, students and teachers regarding management of complex orthopaedic problems. He participates in annual academic meetings of Orthopaedic societies on a regular basis. He is a member of the American Academy of Orthopaedic Surgery, Orthopaedic Trauma Association, American Academy of Hip and Knee Surgeons, Mid America Orthopaedic Association, Kentucky Orthopaedic Association, Kentucky Medical Association, and Fellow of American College of Surgeons.

Dr. Yakkanti was born in India where he earned his basic medical education and completed his Orthopaedic residency training. He went on to complete advanced training in managing complex fractures and poly trauma at the University of Louisville. He then completed the adult reconstruction fellowship at the University of Louisville. Dr. Yakkanti is board eligible by the American Board of Orthopaedic Surgery.
Academy of Physician Assistants, Kentucky Coalition of Nurse Practitioners and Nurse Midwives, and Sigma Theta Tau. The Kentucky Coalition of Nurse Practitioners and Nurse Midwives, and Sigma Theta Tau. The Kentucky Coalition of Nurse Practitioners and Nurse Midwives, and Sigma Theta Tau.

Lori became board certified by the American Academy of Nurse Practitioners in 2005. She is a member of the American Academy of Nurse Practitioners, The Kentucky Coalition of Nurse Practitioners and Nurse Midwives, and Sigma Theta Tau.

Melissa became board certified by the National Commission of Certification of Physician Assistants in 2005 and has been practicing in orthopaedics. She is a member of the American Academy of Physician Assistants and the Kentucky Academy of Physician Assistants.

Kate is a certified physician assistant specializing in orthopaedics under the supervision of Richard A Sweet, M.D. She is from Northern Kentucky, graduating from Hanover College and graduating with a bachelor's degree in Sports Medicine. She worked as research assistant/athletic trainer at Methodist Sports Medicine Clinic in Indianapolis for three years. She then traveled to New Jersey, where she attended Seton Hall University and received her master's degree in Physician Assistant Studies.

She is a member of the American Academy of Physician Assistants, Kentucky Academy of Physician Assistants, and National Commission on Certification of Physician Assistants.

Lori is a nurse practitioner working in collaboration with George E. Quill, Jr., M.D., specializing in disorders of the foot and ankle. She graduated magna cum laude from the University of Louisville with a Master's of Science in Nursing in 2005. She also received a Bachelor's of Science in Nursing from the University of Louisville in 1997.

Melissa became board certified by the National Commission of Certification of Physician Assistants in 2001. She received her Bachelor's degree in Biology from the University of Georgia in 1997. She then attended Seton Hall University and received her master's degree in Physician Assistant Studies.

Jennifer became board certified by the National Commission of Certification of Physician Assistants in 2001. She is a member of the American Academy of Nurse Practitioners and the Kentucky Coalition of Nurse Practitioners and Nurse Midwives.

Jennifer is a certified Physician Assistant specializing in orthopaedics under the supervision of Steve Smith, M.D. A Kentucky native, she earned a Bachelor's degree in Biology from the University of Georgia in 1997. She then graduated Cum Laude from the University of Kentucky Physician Assistant Program in 2001. She received her Master's degree in Physician Assistant Studies in 2003.

Since 2001, she has worked as a Physician Assistant in the fields of family practice, urgent care, occupational medicine, emergency medicine, and orthopedics.


Carly is a certified physician assistant specializing in orthopaedics under the supervision of Robert A. Goodin, M.D. A former player on the University of Kentucky women's basketball team, Carly served as team captain during the 2009 basketball season. She graduated from the University of Kentucky with a B.S. in Biology and a M.S. in Physician Assistant Studies with Cum Laude honors.

Previous to her employment at Louisville Orthopaedic Clinic Carly gained experience through her numerous clinical clerkships within the inpatient and outpatient settings. Throughout her athletic and academic career, she received a number of awards for her community service projects, as well as serving as a leader for many university and athletic committee activities.

Carly is a member of the Kentucky Academy of Physicians Assistants (KAPA).

Jennifer is a certified Physician Assistant specializing in orthopaedics under the supervision of Steve Smith, M.D. A Kentucky native, she earned a Bachelor's degree in Biology from the University of Georgia in 1997. She then graduated Cum Laude from the University of Kentucky Physician Assistant Program in 2001. She received her Master's degree in Physician Assistant Studies in 2003.

Since 2001, she has worked as a Physician Assistant in the fields of family practice, urgent care, occupational medicine, emergency medicine, and orthopedics.


Carly is a certified physician assistant specializing in orthopaedics under the supervision of Scott D. Kuiper, M.D. A former player on the University of Kentucky women's basketball team, Carly served as team captain during the 2009 basketball season. She graduated from the University of Kentucky with a B.S. in Dietetics and Physician Assistant Studies.

Melissa became board certified by the National Commission of Certification of Physician Assistants in 2005 and has been practicing in orthopaedics. She is a member of the American Academy of Physician Assistants and the Kentucky Academy of Physician Assistants.

Kate is a certified physician assistant specializing in orthopaedics under the supervision of Richard A Sweet, M.D. She is from Northern Kentucky, graduating from Hanover College and graduating with a bachelor's degree in Sports Medicine. She worked as research assistant/athletic trainer at Methodist Sports Medicine Clinic in Indianapolis for three years. She then traveled to New Jersey, where she attended Seton Hall University and received her master's degree in Physician Assistant Studies.

She is a member of the American Academy of Physician Assistants, Kentucky Academy of Physician Assistants, and National Commission on Certification of Physician Assistants.

Carly is a certified physician assistant specializing in orthopaedics under the supervision of Robert A. Goodin, M.D. A former player on the University of Kentucky women's basketball team, Carly served as team captain during the 2009 basketball season. She graduated from the University of Kentucky with a B.S. in Biology and a M.S. in Physician Assistant Studies with Cum Laude honors.

Previous to her employment at Louisville Orthopaedic Clinic Carly gained experience through her numerous clinical clerkships within the inpatient and outpatient settings. Throughout her athletic and academic career, she received a number of awards for her community service projects, as well as serving as a leader for many university and athletic committee activities.

Carly is a member of the Kentucky Academy of Physicians Assistants (KAPA).

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and after.

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Before

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