Louisville Orthopaedic Clinic

Personal or Custom Knee Replacement Surgery · page 7

Our Commitment to the **Sports Community** page 10

Hip Replacement Surgery · page 17

My Shoulder Hurts: **Did I Tear My Rotator Cuff?** page 22

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Greetings from

THE ADMINISTRATOR OF LOUISVILLE ORTHOPAEDIC CLINIC

We are honored to bring you the fifth edition of the Louisville Orthopaedic Clinic Magazine. We look forward to providing our patients with information and advancements in orthopaedic medicine. The Louisville Orthopaedic Clinic and Sports Rehabilitation Center make every effort to provide comprehensive orthopaedic care, in a caring and friendly atmosphere.

The group began in 1974 with three orthopaedic surgeons. Today our facility includes ten orthopaedic surgeons and will be welcoming Mat Phillips, M.D. this fall. The physicians work in collaboration with two physician assistants and two nurse practitioners to enhance the treatment process. Our surgeons are board eligible or 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 and sports medicine. We offer onsite conveniences of an open MRI, outpatient surgery suites and a physical therapy department.

Our patients experience the newest technology and concepts available in healthcare. As early adopters of the electronic medical record in 2001, we improved patient care by eliminating the paper chart and streamlining the treatment process. Louisville Orthopaedic Clinic will continue to advance our technology as healthcare reform is implemented 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. The patient portal is a secure method of exchanging information between the patient and facility. Patients can register and update information, request medical records, complete online payments, request refills on medication and send non-urgent medical request. Our physicians continue to participate in numerous research studies; 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, 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.

We look forward to meeting your orthopaedic needs.

Deborah Martin
Administrator

LOUISVILLE ORTHOPAEDIC CLINIC

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TABLE OF *Contents*

Personal or Custom Knee Replacement Surgery BY ERNEST A. EGGERS, M.D. 7

Our Commitment to the Sports Community 10

Bunions: A Common Foot and Ankle Problem Especially If You Are "Dancing with the Stars" BY GEORGE E. QUILL, JR., M.D. 12

Hip Replacement Surgery BY ROBERT A. GOODIN, M.D. 17

Minimally Invasive Knee Replacement Surgery State of the Art: 2010 BY RICHARD SWEET M.D. 18

My Shoulder Hurts:

Did I Tear My Rotator Cuff? BY J. STEVE SMITH, M.D. 22

Breakthrough in Knee Replacement:

New Bearing Surfaces Reduce Wear BY ERNEST A. EGGERS, M.D. 24

Louisville Orthopaedic Clinic and Sports Rehabilitation Now Offers ASTYM for Scar Tissue Management 26

Louisville Orthopaedic Clinic Physicians Give Back 27

Ortho Biologic Opportunity BY GEORGE E. QUILL, JR., M.D. 31

What is Reverse Total Shoulder Replacement? BY J. STEVE SMITH, M.D. ... 37

How Long Do Joint Implants Last? BY ERNEST A. EGGERS, M.D. 38

Physician Directory 51

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ERNEST A. EGGERS, M.D.

Personal or Custom Knee Replacement Surgery

Over the last 25 to 30 years many technical and surgical improvements have been made in knee replacements. Various design improvements, along with multiple sizes, have made it easier for the surgeon to approximate individual bone geometry. Smaller incisions, decreased operating time, and improved functional results have been successful with each decade. In the last year a method of improving application of the instruments has developed using an MRI-based computer model. This is not to say that conventional surgery with a total knee replacement has not been extremely successful, but an "edge" has been given to some patients where indicated.

METHODOLOGY

The initial successful process was a Signature knee by Biomet. With this an MRI was performed at least four weeks prior to the surgery. The results, which included a scan of the hip, the knee and the ankle for alignment, were sent to the company. From that specific or "custom jigs" were sent to the surgeon for an improved accuracy of the instrumentation.

Surgery using these particular measurements must still be finalized by the surgeon as to alignment and balancing of the knee. The surgeon after all is "captain of the ship."

Adjustments in balancing can easily be made at the time of surgery and regression to the usual instrumentation may always be adapted. In my experience this has been unnecessary.

Turnover time is approximately three to four weeks and continues to shorten.

Advantages of the personal computer knee

- operating time has been shortened
- smaller length of the incision
- decreased blood loss
- instrumentation has been minimized
- pain appears to be decreased in the postoperative recovery
- motion of the knee seems to regain more quickly

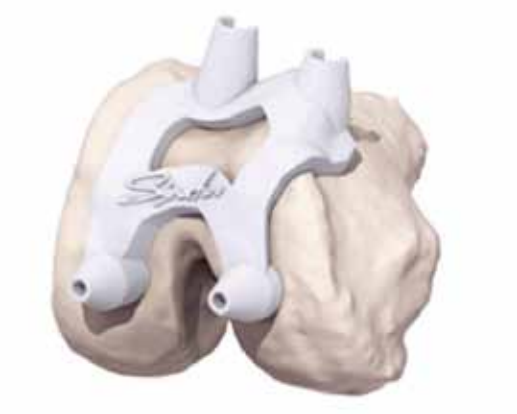
Overall alignment and results in function may take a few years for final determination, but at this stage the procedure appears to be increasing the success with patients. Alignment and rotation of the prosthesis must still be finalized by the surgeon.

In my experience over the last year or so there have been no failures or revisions. It is still a selective process and depending upon age and body weight it may be the methodology of choice.

WHICH KNEE REPLACEMENT IS THE BEST?

Alternative of the Knee Replacement

A good surgeon can make any company's knee work well. I have never felt that one knee implant design fits all people, with particular attention to age, weight and gender. There are several knees that may be more appropriate such as rotating platforms, the Gender or female knee, and the Biomet Vanguard knee.



Signature™ Personalized Patient Care implant

Rotating Platform by DePuy Johnson Johnson

Traditional Knee

Zimmer Gender Solutions Knee

Gender Knee Zimmer

As you would expect all the major companies have now adopted the same process of MRI customizing the instruments. Old knees from 25 years ago are still working, but can be improved with modern concepts.

Initial experience with the MRI-based instrumentation of total knee replacement has been quite successful. Other companies are adopting the same approach. The prior practice of navigation with a computer in the middle of an operation is fast losing its appeal, particularly with the results showing no improvement over several large studies. The presurgical scan-based technology that aligns the hip, knee and ankle may well be the next step in improving overall results. Close attention to patient's function, range of motion and overall alignment will be necessary over the next few years. Meanwhile, in our clinical experience, this operative approach appears to have improved operating time, required minimal incision and resulted in better function.

CONGRATULATIONS Ernest A. Eggers, M.D.

FORTY YEARS AND STILL GOING STRONG!

The staff of Louisville Orthopaedic Clinic would like to congratulate Dr. Ernest Eggers on 40 years of service. Dr. Eggers started with Louisville Orthopaedic Clinic in 1971. He was one of the area's first physicians to perform total joint replacement surgery. He has been involved in minimal-invasive hip surgery for over 25 years and is now teaching limited-incision surgery on both hips and knees. Throughout his practice he has performed over 14,000 hip and knee replacements. Dr. Eggers will continue to be a foremost expert in the study of joint reconstruction for many years to come, as well as continue to strive to find innovative ways to reduce arthritic joint pain.

WELCOME DR. PHILLIPS!

NEW PHYSICIAN TO JOIN IN AUGUST 2011

The Louisville Orthopaedic Clinic would like to welcome Mathew Todd Phillips, M.D. to our practice. He will begin his practice here in August 2011 specializing in treatment of the spine. Dr. Phillips received his Doctorate of Medicine from Rush University, Chicago, Illinois, and is completing his Orthopedic Spine Surgery Fellowship at Spine Surgery PSC here in Louisville, Kentucky. He received the Dean's Fellowship Research Grant in 2001 while attending Rush University, and has given numerous presentations and contributed to medical journals.

Dr. Phillips has wanted to be a physician for as long as his parents can remember. However, he became interested in orthopaedics, specifically the spine, when he suffered a lumbar spine fracture himself in junior high. Luckily he did not need surgery, but wore a brace for three months.

Dr. Phillips is an accomplished musician and fitness enthusiast. He enjoys University of Illinois sports and spending time with his fiancé, who is a nurse at the University of Louisville.

When asked why he chose the Louisville Orthopaedic Clinic and the Louisville area, Dr. Phillips said, "I came here for fellowship because a friend of mine had done his fellowship here and spoke very highly of the fellowship and the city. We decided to stay first because we thought it was an excellent opportunity to join a quality group, but also because we have really enjoyed our time in Louisville."

The physicians and staff of Louisville Orthopaedic Clinic are looking forward to working with Dr. Phillips and are confident his expertise will be an asset to our patients.

Our Commitment to the Sports Community

Our fellowship-trained Sports Medicine Physicians at Louisville Orthopaedic Clinic, Scott D. Kuiper, M.D., Ty E. Richardson, M.D. and J. Steve Smith, M.D. are proud to provide care for athletes in our community. They are team physicians for St. Xavier, Ballard and Manual High Schools, as well as others. They enjoy the opportunity to participate in the care of student athletes by donating their time at sporting events. These athletes are among the many our physicians have treated. In they following article they share their experience.

Ty E. Richardson, M.D., Scott D. Kuiper, M.D., and J. Steve Smith, M.D.

"Dr. Richardson has been a valuable resource for our football team. He has a terrific relationship with our staff and players and has provided excellent care and guidance to our football players and families."

David Zuberer, CAA
Athletic Director
duPont Manual High School

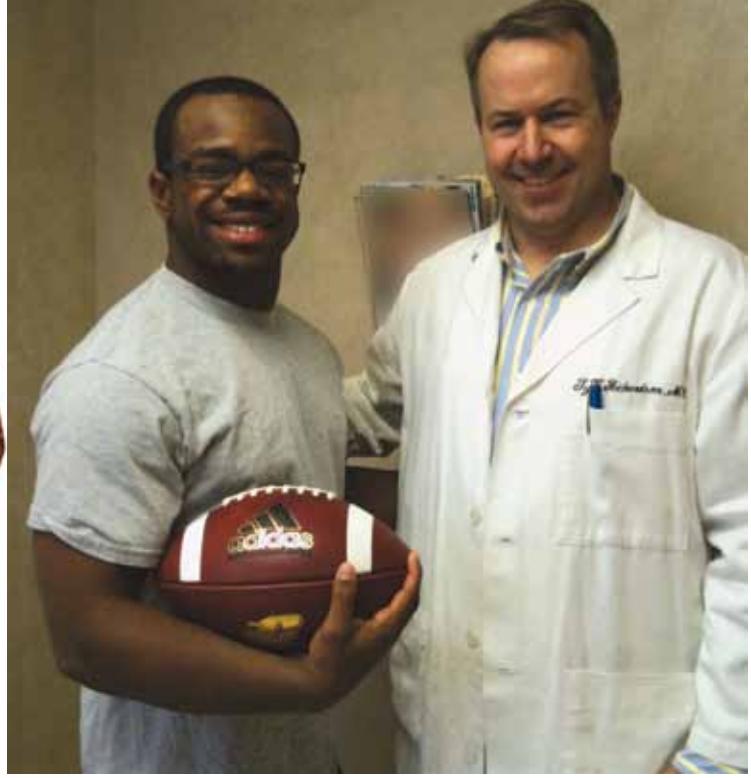
Garrett Underwood – St. X

Garrett is a cornerback for St. Xavier High School. He suffered a knee injury in a practice game trying to make a tackle. Dr. Kuiper performed an anterior cruciate ligament reconstruction in October 2009. Garrett's biggest concern was that he would lose some of his speed, but he feels he is "faster than before the surgery."

He enjoys the competition and challenge of the game, but also the camaraderie and friendships he has formed. Given the opportunity, he would like to play college football.

When asked about his experience here with Dr. Kuiper and the Louisville Orthopaedic Clinic, our surgery center and the Sports and Rehab, Garrett said he had an excellent experience in all areas and that "Dr. Kuiper is the man."

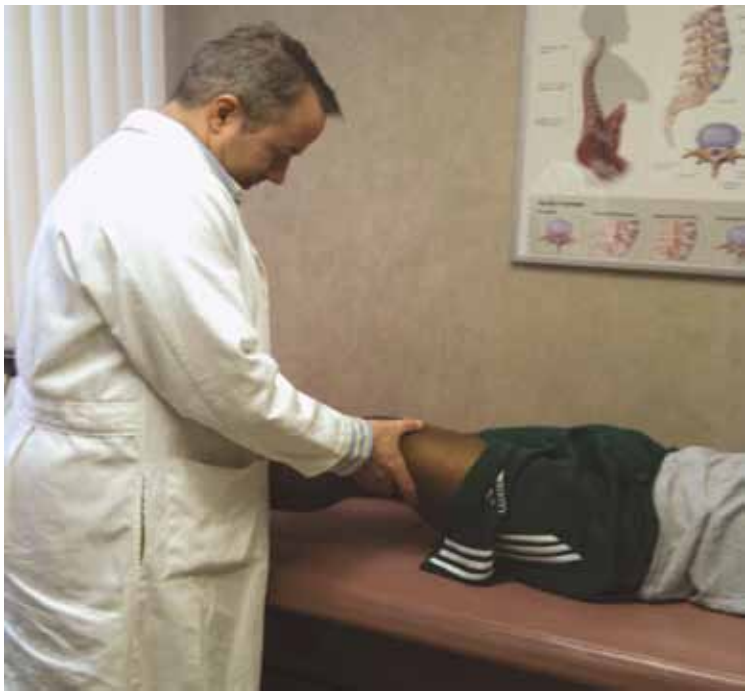
We asked Coach Bart Bruner about Garrett's recovery. "Garrett just finished a successful junior season where he was a varsity defensive back. He played in every game and continued to improve as the season progressed. He is already conditioning for his senior season where he will be an important part of the St. Xavier defense. As a coach, you hope that your players are going to get great medical care, especially for a major surgery such as Garrett's ACL. This is a great example of outstanding teamwork by all involved. Dr. Kuiper, the physical therapist group, and Garrett all did an outstanding job to get him back to full speed."



Timothy Phillips – Trinity/Central Michigan University

Timothy plays football at Central Michigan University as a running back. He has suffered injuries to both knees from "wear and tear" of the game. Dr. Richardson performed surgery on both knees at the time of the injuries, the right one in December 2006 when Timothy was at Trinity High School and the left one in December 2010. Timothy feels he has been treated like family here at the Louisville Orthopaedic Clinic.

Timothy enjoys playing football for the opportunity to entertain the fans, but also he feels it teaches the players to be disciplined and trustworthy. When asked if he would like to play professional football he said, "yes, if it is God's plan."



"Ballard High School greatly appreciates the commitment and dedication Dr. Smith and Louisville Orthopaedic Clinic have shown in his support of our athletic programs. Dr. Smith's administration of pre-participation physical exams, and event coverage, combined with Louisville Orthopaedic Clinic's preferential scheduling for our injured athletes have become integral aspects for the continued success of our athletic programs. We look forward to continuing to build our relationship with Dr. Smith and Louisville Orthopedic Clinic."

Matt Kendzior, ATC
Ballard High School

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

BUNIONS: A COMMON FOOT AND ANKLE PROBLEM

Especially If You Are "Dancing With The Stars"

There is a lot of confusion and misrepresentation about bunions in the world today, especially because this is such a common physical malady. The term bunion refers to a prominence at the inside aspect of the forefoot near the base of the big toe. The term bunion actually refers only to a prominence here, and the correct medical term is hallux valgus.

The hallux valgus deformity consists of a malalignment of the first metatarsophalangeal joint associated with lateral deviation of the great toe towards the second, prominence of the inside part of the forefoot, and an increased width of the front of the foot compared to the heel. The bunion problem often causes a problem with shoewear and activity levels.

Bunions are very common in dancers, and not all bunions need to be fixed. Many bunions are painless. Many bunion deformities are non-progressive.

Other clinical entities are lumped into the category of "bunion" that really refer to either an arthritic condition or a "knuckling down" of the dancer's forefoot.

Dancers obviously spend much more time on their feet than do most sedentary people. Dancers usually have a very strong foot and rarely do they require surgery for a hallux valgus deformity unless it hurts daily or, even in the absence of daily pain, is rapidly progressive or causing impingement of other structures in the front of the foot such as hammertoes and calluses, corns, and neuromas.

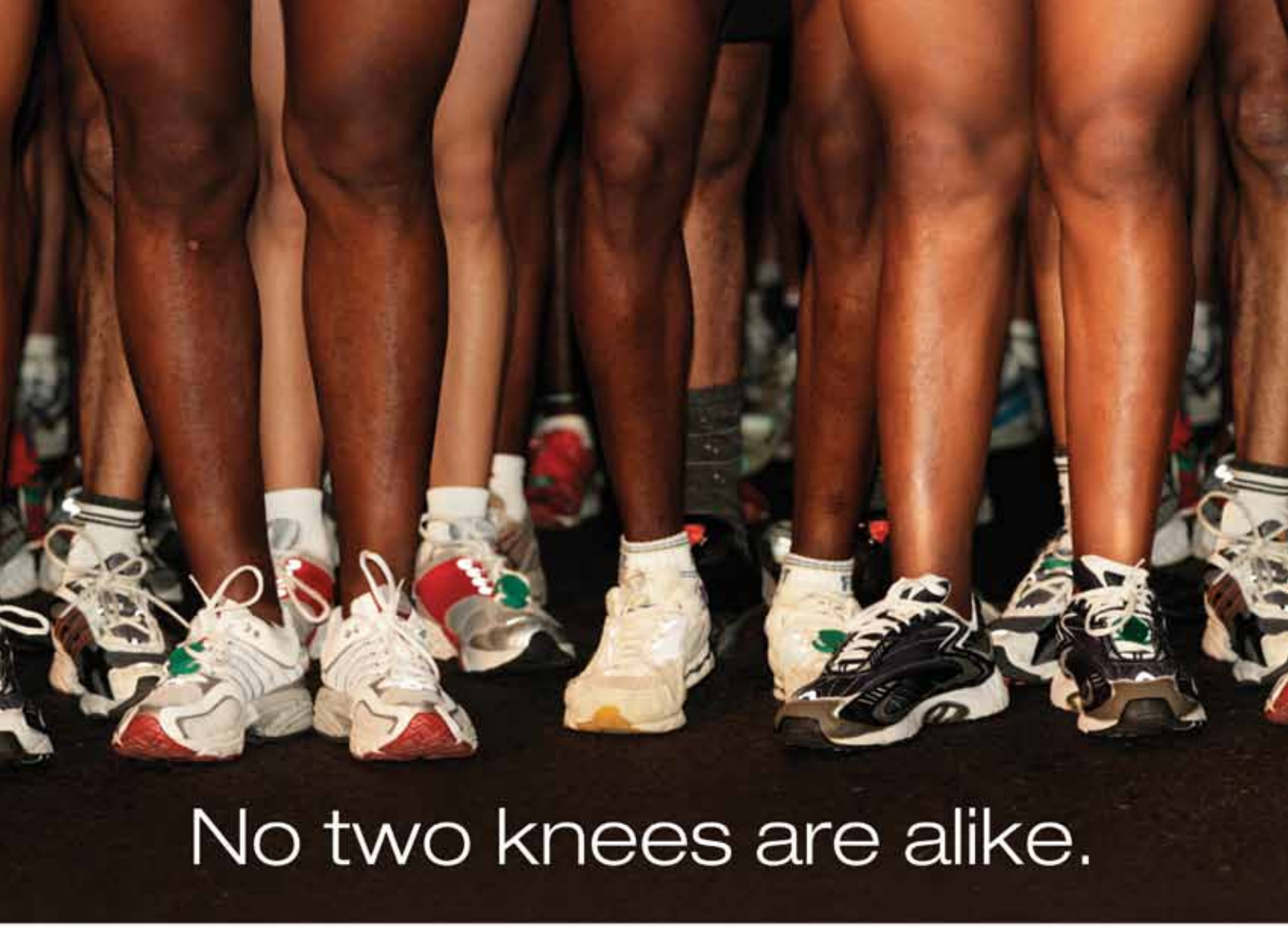
Nonoperative treatment for bunions in an active dancer would consist of taping, shoewear modification, and gentle range of motion exercise. Nighttime splinting and many over-marketed podiatric treatments have never been clinically proven to improve the clinical course of bunions in dancers.

The foot on the left has been surgically repaired. The foot on the right still has a bunion.

For daily pain that gets in the way of dancing and/or for progression of deformity, there are outpatient surgical remedies for hallux valgus. These are done in the outpatient surgical setting with twilight sleep and nerve blocks that keep patients very comfortable.

Many of the horror stories one hears about bunion surgery can be avoided by choosing your healthcare provider carefully.

In short, just because one has a bunion does not necessarily mean one needs surgery, especially in an active dancer who can often get by with nonoperative care. Bunion surgery is for patients who are experiencing daily pain, for patients who have noticed the size and shape of the bunion continues to get larger over time, and for patients and dancers who can no longer find shoes to fit the size of their bunion or in whom the deformity prohibits comfortable pursuit of their dancing passion.



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Six Ways to Help Safeguard the Future of Your 401(k)

By James F. Ade

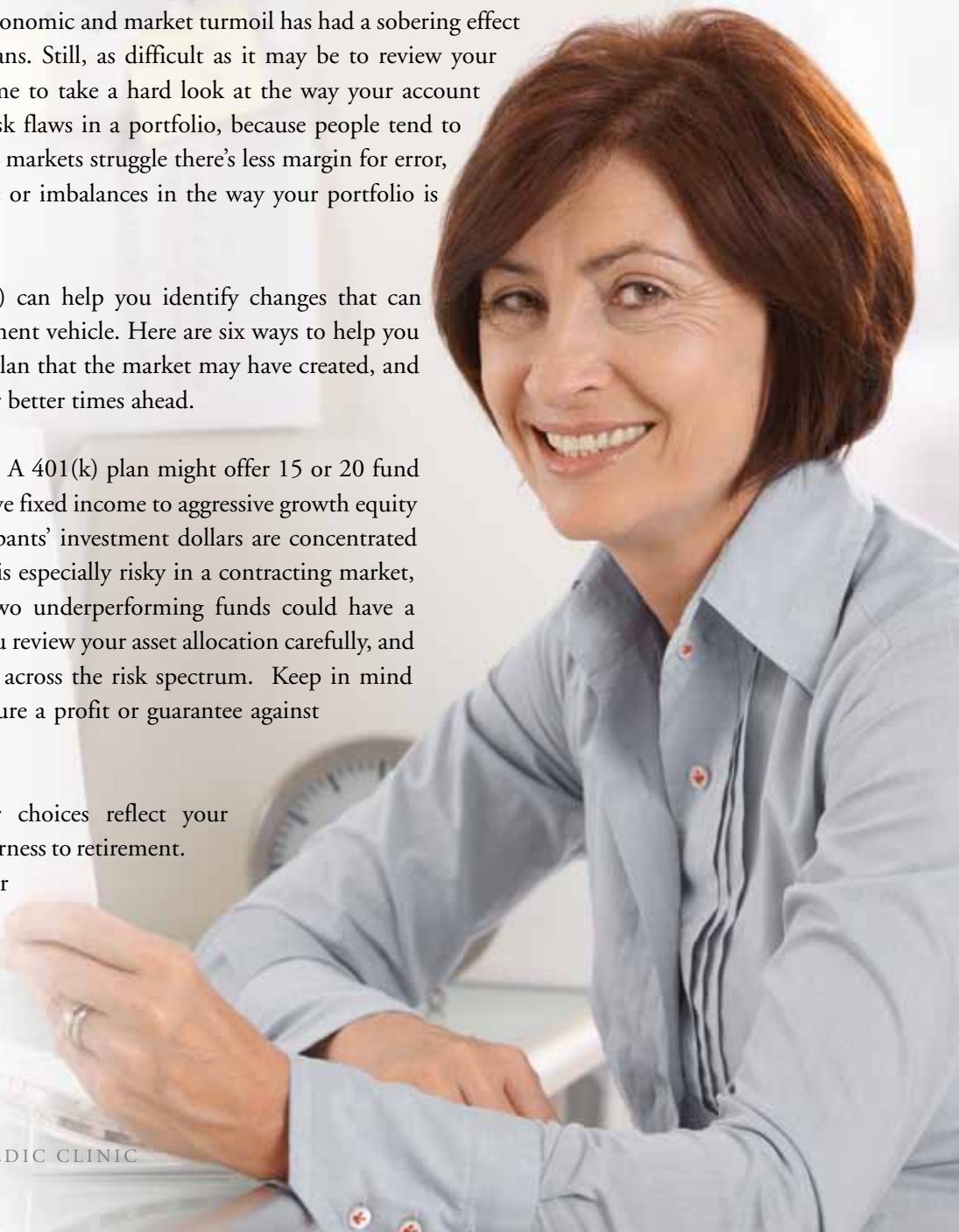
Extreme market volatility has disrupted even the most sound retirement accounts, throwing asset allocations out of balance and risking future potential growth. Here's how you can get your 401(k) account back on track.

For most 401(k) investors, the economic and market turmoil has had a sobering effect on their employer-sponsored plans. Still, as difficult as it may be to review your 401(k), now is an important time to take a hard look at the way your account is constructed. Bull markets mask flaws in a portfolio, because people tend to take gains for granted. But when markets struggle there's less margin for error, so underperforming investments or imbalances in the way your portfolio is structured can really stand out.

A careful review of your 401(k) can help you identify changes that can strengthen this important retirement vehicle. Here are six ways to help you correct any imbalances in your plan that the market may have created, and position your retirement plan for better times ahead.

Check your diversification. A 401(k) plan might offer 15 or 20 fund choices, ranging from conservative fixed income to aggressive growth equity funds. Yet, many 401(k) participants' investment dollars are concentrated in just two or three funds. This is especially risky in a contracting market, because holding even one or two underperforming funds could have a damaging impact. Make sure you review your asset allocation carefully, and choose your investment options across the risk spectrum. Keep in mind that diversification does not ensure a profit or guarantee against a loss.

Rebalance. Make sure your choices reflect your personal risk profile and your nearness to retirement. For example, a moderate investor might target a mixture heavily weighted to large-cap growth funds, large-cap value funds and fixed income, with significantly less in international equities



and cash. But market volatility can easily skew those proportions—some funds may drop sharply while others maintain their value or even gain. As a result, your asset allocation will change without any deliberate steps on your part.

You should consider your 401(k) in the context of your overall assets. The sum total of your holdings—not just your 401(k) investments—needs to be in balance. You may find that it really pays to sit down and discuss all your retirement assets with your financial advisor.

Identify poor long-term performers. Checking each fund you hold against its peers can help you determine whether that fund's performance, good or bad, is due to market forces or underlying fund problems. You can tell how a given fund has performed over the past one, three, five and 10 years, relative to an index of similar funds provided by monitoring agencies such as Morningstar or Lipper. You could have a good fund manager who performs badly in a given year, but if the longer perspectives also show the fund underperforming against the respective benchmark, you may want your money in another fund.

Assess fund fees. Some funds charge fees (typically a percentage of your overall purchase) when you buy shares, and again when you sell. This can become costly as you adjust your portfolio. Funds that charge according to the "net asset value" of your holdings don't carry these transaction fees. When checking fees, that should be the first thing you consider. Make sure you examine a fund's prospectus for a list of all the applicable fees.

Keep in mind that individual funds vary widely in terms of their operating expenses. Check the operating expenses for your holdings against the average for those in your plan and the benchmarks for similar funds, using guidelines from Morningstar or Lipper. A financial advisor can help you make these comparisons.

Implement changes carefully. Adjusting your portfolio during a troubled market raises a fundamental question: How can you avoid losses from selling at depressed prices? If your portfolio is only moderately imbalanced, one simple strategy is to apply your changes moving forward with each new contribution from your paycheck. Over time, your assets can rebalance without selling a large number of shares.

If, however, you uncover a serious imbalance or funds that simply aren't performing, it may be best to make changes even if it means incurring short-term losses. Over time, the value of having a balanced portfolio and strong funds should more than make up the difference.

Evaluate the features of your plan. Even the best 401(k) strategy will be hard to implement if the plan itself offers few choices or restricts your ability to change investments. It's best to have an open architecture with multiple funds and managers, rather than being locked into one proprietary fund family. Some plans limit your ability to transfer in and out of asset categories, or charge you a fee for it.

If you feel your plan is too restrictive, you may want to consider an "in-service rollover," which allows you to roll part or all of your assets into a separate IRA that offers a wider array of choices. This allows you to keep your 401(k) active, so that you can continue making contributions from your paycheck and receiving any matching contributions offered by your employer, while enjoying greater flexibility and control over those assets.

Not all company 401(k) plans offer this option, and you'll want to consult with your financial advisor and tax professional to weigh the potential benefits against any possible tax impact. (Note that in-service withdrawal payments are taxable if not deposited into an eligible retirement plan or account within 60 days of receipt. You may also owe an early withdrawal penalty.)

It's not inevitable that assets leak out of your 401(k) by virtue of changing markets, poor choices or high fees. By taking your plan through this six-step process, you can see to it that your retirement savings account is positioned to weather turbulent markets and make the most of more bullish times.

For more information, contact Merrill Lynch Financial Advisor, Christopher Sprenkle of the Cincinnati, OH office at 800.919.3618 or http://fa.ml.com/sprenkle_frey

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James F. Ade is a Vice President and Retirement Solutions Specialist for Merrill Lynch

ROBERT A. GOODIN, M.D.

Hip Replacement Surgery

Hundreds of thousands of people undergo hip replacement surgery every year. The most common reason patients have hip replacement is due to osteoarthritis. This is a condition where the cartilage or the cushion in the hip joint wears out and leads to pain and limited mobility.

We used to perform the symptom through long incisions and the implants would only last 10 to 12 years. The recovery time was fairly lengthy. New technology has allowed us to perform hip replacements through smaller incisions of roughly 8 to 12 centimeters or 4 inches, the implants may last for many decades, and the recovery time is much quicker due to the less invasive nature of the surgery.

In my opinion, the most significant advancement has come with the implants. Traditionally when we replace the hip joint, which is a ball-and-socket joint, we have had to use a combination of metal and plastic. New technology allows us to replace the entire joint with only metal implants. This allows the hip to potentially last for many decades. This obviously is a big advantage to young patients because they may have been putting off surgery for fear that they may need multiple surgeries in a lifetime. Now with the new metal implants, they may only need one surgery.

In addition, the new prosthesis allows us to recreate the normal hip joint more closely. This obviously allows patients better stability to their hip, as well as range of motion. This will decrease the chance for a painful dislocation and potentially future surgery. This is a benefit for patients of all ages.

RICHARD SWEET M.D.

Minimally Invasive Knee Replacement Surgery
STATE OF THE ART: 2011

The last decade has witnessed the evolution of several important advances in Total Knee Replacement (TKR) surgery. Pain management techniques have improved to make immediate postoperative rehabilitation much easier. Implant designs have progressed to allow for greater range of motion and more normal function. However, one of the most significant advances over the last decade has been in the development of a less invasive surgical approach to the knee so as to allow for a quicker and easier recovery and a more rapid return to full function. The development of the minimally invasive surgical approach to the knee has not been without its issues. It is a more demanding technique requiring greater surgical experience. And if applied by inexperienced or untrained surgeons can lead to greater risk of complications.

THE MINIMALLY INVASIVE PROCEDURE – GENERAL CONCEPTS

The primary feature of minimally invasive knee surgery is not the length of the skin incision but the protection of the underlying quadriceps muscle and tendon (quad mechanism). Older, more traditional surgical approaches involve extensive cutting into the quadriceps muscle or tendon. Incision into the quad mechanism delays return of muscular control of the leg. Patients find they are unable to straight leg raise for several days. Early efforts at walking are difficult due to poor quadriceps muscle function and control. The ability to gain full range of motion is delayed.

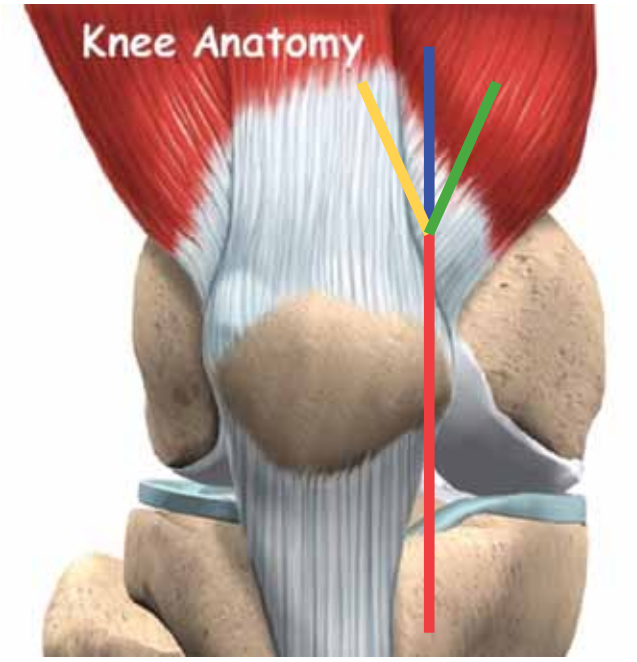

Figure 1

Yellow line – cutting through the quadriceps tendon prolongs recovery of the quadriceps mechanism

Blue line – cutting through the vastus medialis muscle (VMO) also delays recovery

Green line – minimally invasive splitting not cutting the VMO near the medial (inside) border of the muscle protects the vast majority of the quad mechanism and provides for the fastest recovery.

Special low profile instruments are required to utilize the quadriceps sparing surgical approach for knee replacement surgery.

The minimally invasive knee approach minimizes quadriceps dissection and protects the muscle throughout the operative procedure. Direct cutting of the quadriceps tendon and muscle is avoided. Instead in the minimally invasive approach the quad muscle is split along the line of its fibers for a very short distance and very near the medial (inside) border of the muscle (see figure 1). Since the muscle is split and not cut, much less healing is required. And since the muscle split is close to its inside border, the great bulk of the quadriceps muscle is left completely intact and protected. The result is almost immediate return of quad function after surgery.

ADVANCES REQUIRED FOR SAFE MINIMALLY INVASIVE SURGERY

In order for the minimally invasive surgical approach for knee replacement surgery to develop, three advances were necessary. First, instruments had to be modified to be much less bulky so as to fit into the smaller spaces provided by the minimally invasive exposure. Second, clinical research had to be performed to determine the best and safest of various proposed minimally invasive techniques (this evolution continues to this day). And finally, surgeons adopting these techniques needed special training and experience so as to be able to safely employ the minimally invasive techniques that evolved.

ADVANTAGES OF MINIMALLY INVASIVE SURGERY TO THE PATIENT

The primary benefit to the patient of the minimally invasive approach in total knee replacement surgery is the shortened rehabilitation time line leading to a quicker recovery. When combined with new pain management techniques such as the use of femoral and sciatic nerve blocks, the surgical experience is much less painful. Since the quad mechanism is protected, control of the leg is regained quickly after the effects of the nerve blocks have worn off (18 hours on average). This leads to a shorter hospital stay (two nights for relatively young, fit patients – three nights for less fit and older patients). Time on the walker, crutches, and / or cane is shortened and many patients are able to discard all ambulatory aids in a couple of weeks or

less. Range of motion is regained more quickly and less physical therapy is required. Time to return to activities of daily living such as driving, working, and recreational sports is shortened (though there remains great individual variability on the speed of recovery).

RISKS OF MINIMALLY INVASIVE SURGERY

In the early developing years of minimally invasive surgery for knee replacement surgery, there were concerns regarding the possibility of an increased complication rate. These concerns included possible damage to the skin and soft tissues due to forceful surgical retraction that might lead to an increased infection rate. There were also concerns that due to more limited exposure, there would be a possibility of mal-aligning knee components leading to inferior knee function. Studies have since shown, though, that a trained, experienced surgeon can utilize the techniques of minimally invasive surgery with no increased risk of complications. The key to success and the avoidance of problems and complications is the recognition by the surgeon as to how best to utilize minimally invasive concepts on an individualized basis. In complex and difficult cases, greater surgical exposure may be required. It is the judgment developed by experience that allows the surgeon to understand how far to push minimally invasive concepts in each individual patient so as to ultimately achieve the excellent long-term results to which all aspire.

WHO IS A CANDIDATE FOR MINIMALLY INVASIVE SURGERY?

Minimally invasive techniques can now be used in all knee replacement surgeries. The ideal candidate in which to fully employ all concepts is a thin patient with a relatively supple knee and little deformity. As the challenge and difficulty of the surgery increases due to factors such as obesity, girth of the knee, soft tissue contractures, and bony deformity, a wider surgical exposure is required to safely implant and align the new knee. However, even in the most challenging cases, minimally invasive surgical techniques and the use of smaller low profile instruments have dramatically reduced the quadriceps exposure required to safely perform the surgery in all patients. Thus all patients can benefit from minimally invasive concepts and techniques. It is the responsibility of the surgeon to know how to safely implement these techniques for the benefit of each patient without increasing the risks involved.

Minimally invasive surgical techniques for knee replacement surgery have been developed and perfected over the last decade. Use of this "quadriceps sparing" approach can lessen postoperative pain and shorten the recovery period. Though the quad sparing minimally invasive approach is most fully employed in straightforward cases, the techniques that have evolved are such that an experienced surgeon can safely apply principles of this approach to the benefit of all patients.

Range of motion is regained more quickly and less physical therapy is required. Time to return to activities of daily living such as driving, working, and recreational sports is shortened.

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J. STEVE SMITH, M.D.

My Shoulder Hurts: Did I Tear My Rotator Cuff?

As a sports medicine surgeon, I find that the complaint of shoulder pain is prevalent throughout my clinic. The human shoulder is composed of many structures that can become injured and, thus, there are a multitude of reasons why your shoulder can hurt. The shoulder joint is an extremely complex joint that is composed of bones, ligaments, muscles, tendons, and the joint capsule. All of the shoulder's bone and soft tissue components must coalesce to provide strength and stability to an inherently unstable joint. While each individual structure is crucial to overall shoulder health, none is more important than the rotator cuff tendons. The rotator cuff is composed of four tendons (supraspinatus, infraspinatus, teres minor, and subscapularis). These tendons surround the humeral head, which is the "ball" component of the shoulder's ball and socket joint. The function of the rotator cuff is to help elevate the arm, provide rotational strength, and keep the humeral head stabilized within the glenoid, or the "socket." Thus, their importance to the shoulder cannot be understated.

Injury to one or more of these tendons is extremely common. The highest incidence of rotator cuff tears occurs in patients over 60 years of age and in the dominant arm. However, some rotator cuff tears are not painful and occur in normal functioning shoulders. Therefore, a thorough physical examination and careful patient history are crucial in determining the cause of shoulder discomfort and/or loss of function. Furthermore, all rotator cuff tears are not treated the sam,e and many will not require surgery. Individuals who have failed specific nonoperative treatments will be those patients considered for surgical intervention.

Rotator cuff damage occurs in two general flavors. Tears of the rotator cuff receive more attention because this type of injury leads to surgery more commonly than the second type of injury known as, tendinopathy. Rotator cuff tears can be acute or chronic. Chronic tears are commonly found with repetitive overhead use (e.g. tennis players or factory workers) or with impingement of the tendons on bones within the shoulder. Acute tears of the cuff occur with falls, shoulder dislocations, or a sudden force on an outstretched arm. The second type of injury, known as tendinopathy, is a generic term that applies to inflammation of the tendons, micro-tears, and degeneration of the tissue with age.

The first line treatment of most injuries to the rotator cuff is physical therapy, anti- inflammatory medicines (e.g., Ibuprofen or Naprosyn), and ice. A steroid injection in the shoulder may also be offered by your physician. This injection can decrease inflammation, as well as provide valuable diagnostic information. Most evaluations of the shoulder also include baseline x-rays to rule out arthritis, fracture, dislocation, or malignancy. Many physicians also utilize magnetic resonance imaging (MRI) or ultrasound to further evaluate the specific structures within the shoulder.

If nonoperative treatments do not alleviate pain and/or weakness, then surgery may be a viable option. Traditionally, rotator cuff surgery has been performed through a somewhat large incision on the shoulder, known better as “open” rotator cuff repair. This surgical approach requires more dissection and release of muscles than arthroscopic rotator cuff repair. Open cuff repair has very favorable outcomes and remains the standard to which arthroscopic repair is compared. However, many surgeons are turning to arthroscopy because the outcomes (success rates) are better than, or at least equal to, open repair. Rather than one large surgical incision, arthroscopy requires a couple of small incisions that are less than an inch long. This allows for a more pleasing cosmetic result and much less of a scar. Furthermore, arthroscopic surgery is outpatient, meaning you can go home the same day as your surgery. Several studies have also shown less pain after surgery with arthroscopy. With arthroscopy the entire shoulder and entire rotator cuff can be visualized. This is of a great benefit to the surgeon and patient because all torn or injured structures in the shoulder can be repaired. Some of these injuries would go unnoticed with open rotator cuff surgery.

Arthroscopy requires a couple of small incisions that are less than an inch long. This allows for a more pleasing cosmetic result and much less of a scar.

After surgery, patients go into a sling to protect the repaired tendons until range of motion can be safely resumed. Physical therapy is a mainstay of the postoperative recovery period, and patients should plan to attend several therapy sessions after surgery. Returning to work is highly variable and depends greatly on the demands of your job and whether light duty is available at your work place. Most patients can resume their pre-surgical activities around 4 months, but strength gains and decreases in pain continue for up to a year.

Shoulder pain is common and can be the result of several distinct causes. However, there is an extremely good chance the pain can be alleviated. Comprehensive and timely evaluation can dramatically improve your quality of life and return you to pre-injury status and activity levels.

ERNEST A. EGGERS, M.D.

BREAKTHROUGH IN KNEE REPLACEMENT:
New Bearing Surfaces Reduce Wear

Since the mid-1970s of knee replacement, orthopaedic companies have sought to improve instrumentation and geometric design and plastic properties for longer implant life. Certainly new instruments and the MRI pre-navigation system have improved the accuracy of our implants. The market standard has been 10 to 15 years, although in my experience it has been 20 years plus.

Over the last decade the Smith and Nephew Orthopaedic Company has improved the bearing surface in the joint using an oxidized zirconium material on the femoral side, and a dense, highly crosslinked polyethylene or plastic on the tibial side*. The metal is extremely smooth, strong, and resistant to scratching. This along with more advanced plastic has led to a marked reduction in wear and particle accumulation within the human knee.

The metal surface is called Oxinium (oxidized zirconium). It is free of nickel and less allergenic to some individuals. The improved plastic on the tibial surface is certainly used in other companies, but with chrome cobalt on the femoral surface. Matching the Oxinium material with the more dense plastic has performed extremely well in simulator testing of knee replacements over several years. Reduction of wear particles compared to other bearings is approximately 80 percent.

While successful laboratory testing of artificial joints does not match completely the effect within the human body, certainly improved wear rates will give an edge to the patient and surgeon. By all means the joint must be implanted correctly and with the most modern technique. Experience of the surgeon plus the improved wear may certainly reduce the chance of later revision surgery.

While this is indeed another major step in improving the durability of the knee replacement, no one can guarantee a lifelong result. Engineering continues to make improvements in this field, and the patient receives yet another plus for the future.

*This new technology is called VERILAST™, used in the Legion and Genesis II implants. Smithandnephew.com will supply more detailed information.

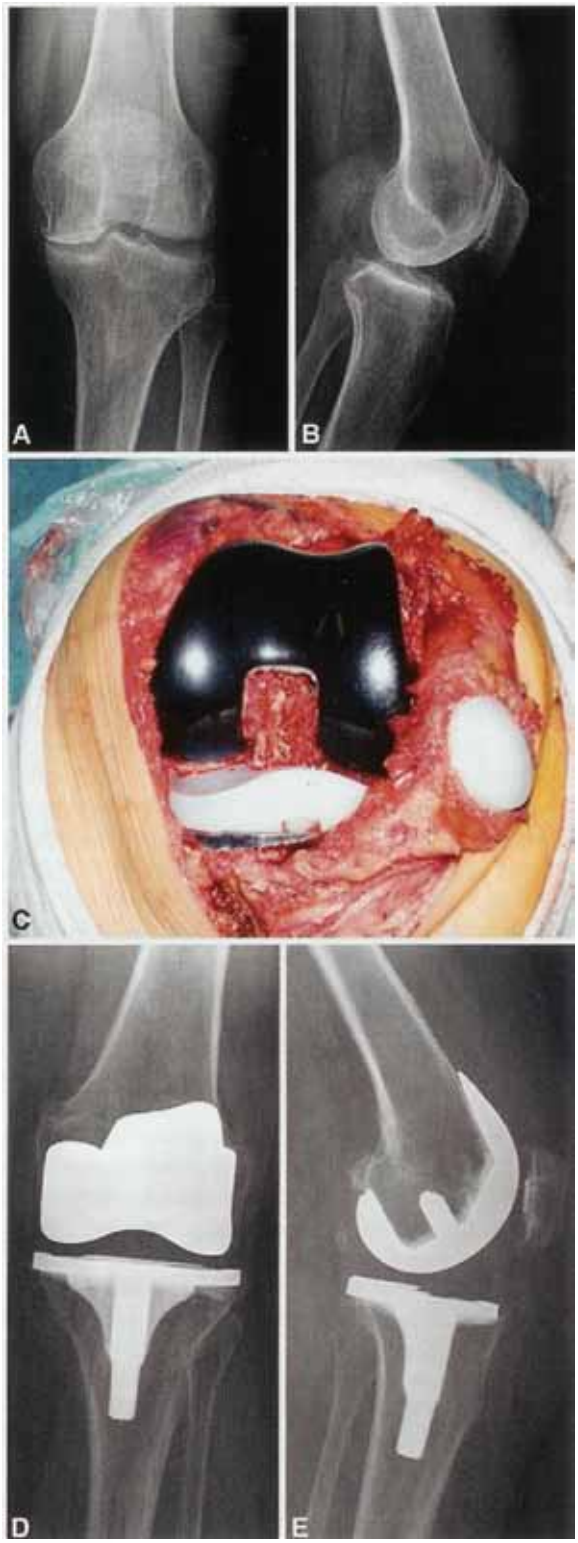


Fig. 1A-E These (A) anteroposterior and (B) lateral radiographs show the varus osteoarthritis in the left knee of a 64-year-old man with a body mass index 22.4 kg/m². (C) An intraoperative photograph shows the implant with the oxidized Zr femoral component. (D) Anteroposterior and (E) lateral radiographs shows the cruciate retaining Genesis II implant with an Oxinium femoral component and patellar resurfacing at the 6-year follow-up.

Louisville Orthopaedic Clinic and Sports Rehabilitation Now Offers
ASTYM for Scar Tissue Management

ASTYM treatment is a revolutionary process that heals soft tissue problems.

ASTYM (A-stim) treatment is a rehabilitation program that stimulates the regenerative healing process of the body. This approach is a noninvasive therapy that works fast and consistently. The ASTYM system rejuvenates muscles, tendons and ligaments. It gets rid of scar tissue problems from old injuries in a fashion previously unimaginable.

The ASTYM system program begins with a thorough evaluation. The clinician then administers a 10 to 15 minute treatment addressing the entire kinetic chain. A regimen of specific strengthening and stretching exercises is prescribed, customized to the patient's work and athletic or recreational activities. Patients experience a decrease in pain and rapid improvement in function, which results in high patient compliance and satisfaction.

Patients who are experiencing pain or loss of motion and function following surgery, injury, cumulative trauma disorders, and chronic irritation/tendinitis may benefit from ASTYM. Some of the clinical diagnoses which have responded well include:

Lateral epicondylitis
Carpal tunnel syndrome
Trigger finger
IT band syndrome
Anterior knee pain
Plantar fasciitis
Patellar tendinitis
Shin splints
Achilles tendinitis
Chronic ankle sprains

Multiple studies demonstrate the effectiveness of ASTYM in restoring mobility and hastening recovery in patients with cumulative trauma disorders and other soft tissue dysfunctions. In a vast majority of cases it offers these distinct advantages:

- Restoration to pre-injury level of activity
- Enjoyment of maximal results with a minimal number of treatments through an emphasis on reestablishing function
- Maintenance of normal activity in conjunction with the treatment
- Decreased need for splints, braces or job site modifications
- Decreased need for surgical intervention

Please ask your physician if you feel you are a candidate for this treatment.

LOUISVILLE ORTHOPAEDIC CLINIC PHYSICIANS

Give Back

In April 2010 Dr. Scott Kuiper and Dr. J. Steve Smith from Louisville Orthopaedic Clinic went to Haiti with the Haitian Christian Outreach to provide medical aid to the victims of the devastating earthquake. They provided general medical care. Dr. Kuiper plans to return in February 2011 and hopes to provide more orthopaedic-specific care.

Haitian Christian Outreach

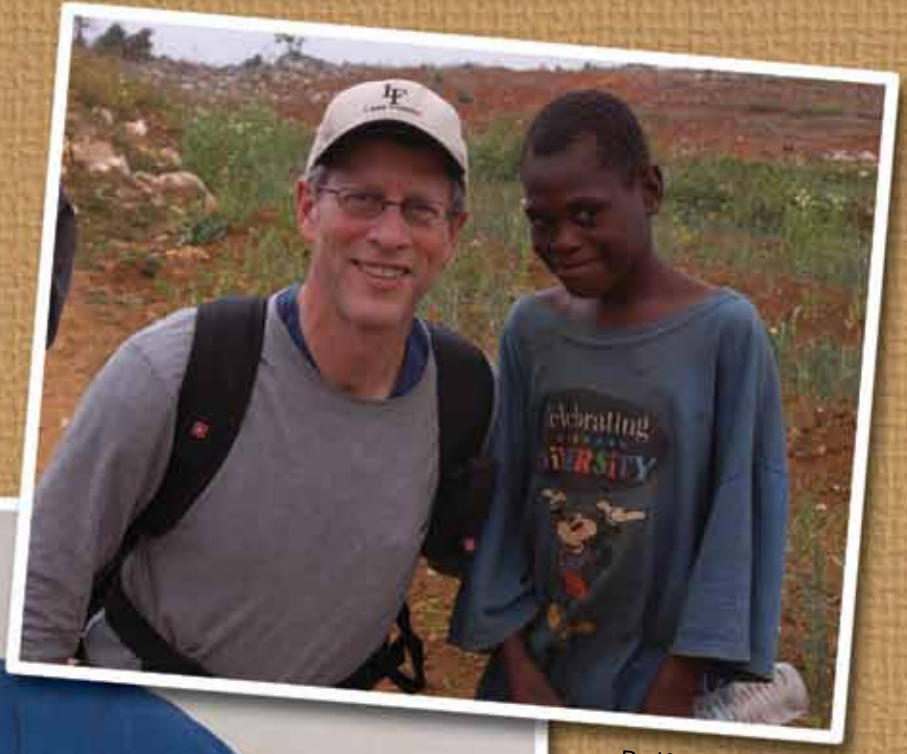
Haitian Christian Outreach is a ministry built on relationships. They are not a foundation that merely provides funding for projects, nor a giant organization burdened by infrastructure that exists apart from the ministries they sponsor. They work within a network of relationships that includes the local churches they plant in Haiti, their leadership, short-term missionaries, partner churches, and individuals who provide financial support and other resources. If you would like to more information about this ministry, please visit their website at www.haitianchristian.org.

Dr. Donald McAllister will be going to Managua, Nicaragua, with members of his family and Hand in Hand Ministries and Greater Louisville Medical Society. Dr. McAllister will be joined by several other physicians in the Louisville area to meet a full range of medical needs. Dr. McAllister also plans to go to Haiti in the spring of 2011.

HAND in HAND MINISTRIES
Where faith and works come together.

Hand in Hand Ministries believes that all people deserve life's essentials – food, water, clothing, shelter, education and medical care. In addition to overseas mission trips to Belize and Nicaragua, Hand in Hand Ministries also works locally in Appalachia repairing homes, distributing food and clothing, and helping to educate the community by providing classes in computers, literacy, sewing and much more.

For more information about Hand in Hand Ministries or to become a volunteer, please visit their website at www.hhministries.com.



Dr. Kuiper

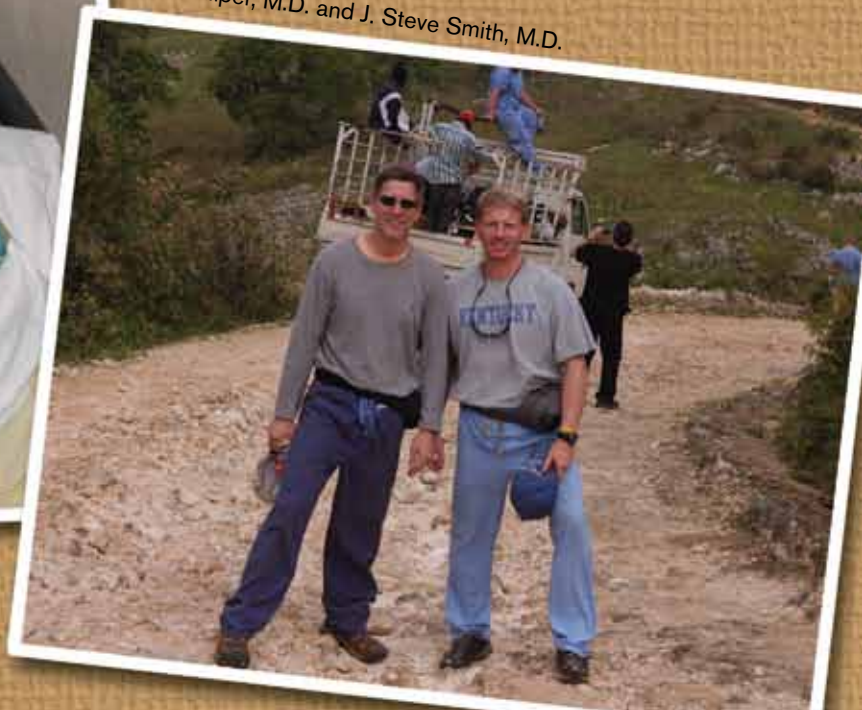
Dr. Kuiper with patient

Dr. Smith with patient

Dr. Kuiper

Dr. Smith with patient

Dr. Smith



Scott D. Kuiper, M.D. and J. Steve Smith, M.D.

On Thanksgiving Day 2010, Dr. George E. Quill, Jr. and Lori L. Edmonds, APRN, participated in the Soles4Souls' Quill Project. The Quill Project is a yearly event dedicated to providing less fortunate people across the nation with free foot screenings and footwear. This year it was held at The Healing Place, and the fitting was for residents of the shelter only.

Soles4Souls is a Nashville-based charity that collects shoes from the warehouses of footwear companies and the closets of people like you. The charity distributes these shoes to people in need, regardless of race, religion, class, or any other criteria. For every $1 you donate today to Soles4Souls, they can provide one additional pair of shoes to someone in need. If you or your company would like to participate in a shoe drive, please contact Soles4Souls at www.soles4souls.org.

If you or someone you know needs help with addiction, please visit The Healing Place website at www.thehealingplace.org.

THE HEALING PLACE
Where hope is found.

George E. Quill, Jr., M.D., and Curtis Edmonds finding just the right shoe.

Aaron Drury with Hanger, Candace Quill, Curtis Edmonds, Lori L. Edmonds, APRN, Jenna Quill, George E. Quill, Jr., M.D., and Randy Schrock with Hanger.

Donated shoes from Red Wing.

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

Ortho Biologic Opportunity

More than 23 million Americans suffer from arthritis. There is a common misconception that very little can be done for arthritis of the foot and ankle. On the contrary, recent advances in laser surgical techniques, orthopaedic implant design, and ortho biologic research can greatly benefit the lifestyle, function and pain relief of the patient suffering from foot and ankle arthritis.

Surgery for arthritic joints can include arthroscopy, joint reshaping and resurfacing, joint replacement or even joint fusion. Arthroscopic surgical techniques entail the use of a 4 millimeter arthroscope, a fiberoptic light source, and a handheld video camera that allows the surgeon complete access to the joint through incisions no bigger than the little fingernail. Very small operative instruments can be inserted through the skin to correct the joint problems. Very often lasers are used to smooth rough surfaces, remove arthritic spurs, and to vaporize loose pieces of torn cartilage (figure 1). For people who have malaligned or deformed joints the stresses across these arthritic joints can be lessened by reshaping and realigning those bones.

While rheumatoid arthritis can be a very disabling form of inflammatory arthritis, the rheumatoid orthopaedic surgical patient is often one of the most gratified ones in my practice postoperatively. Figure 2 demonstrates a patient who had a crooked, malaligned and painful bunion deformity and metatarsalgia due to inflammatory arthritis of the foot. This patient felt much improved after surgery to realign the bones and lessen the stresses across the inflamed joint (figure 3).

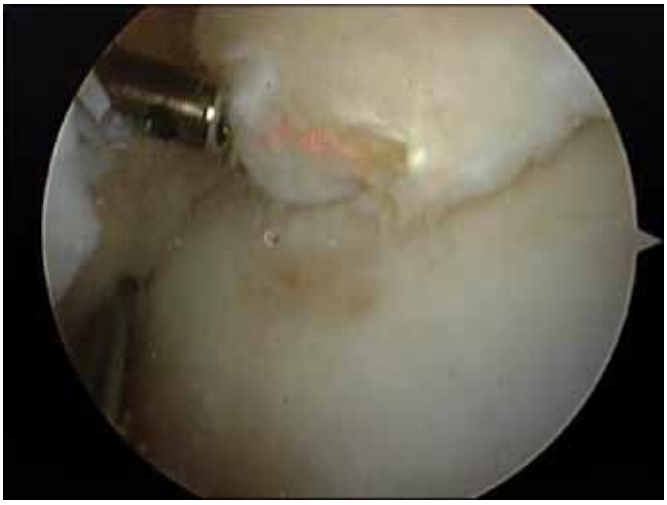


Figure 1. Arthroscopic ankle spur removal by laser technique.

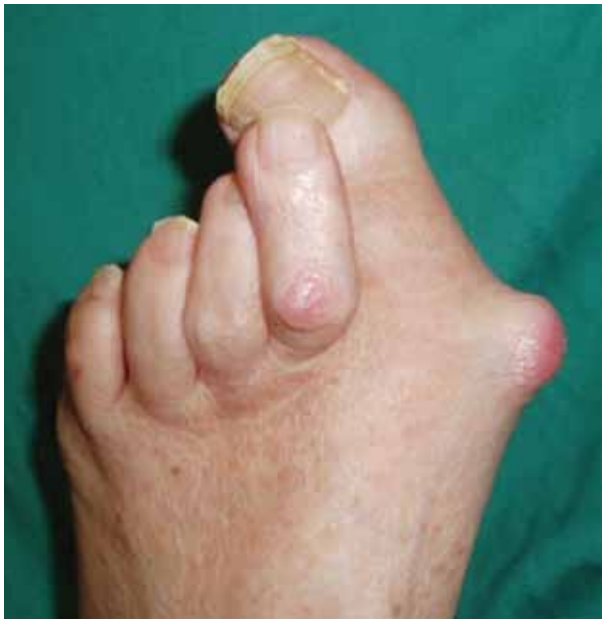


Figure 2. Crooked, malaligned and painful bunion deformity and metatarsalgia due to inflammatory arthritis of the foot.

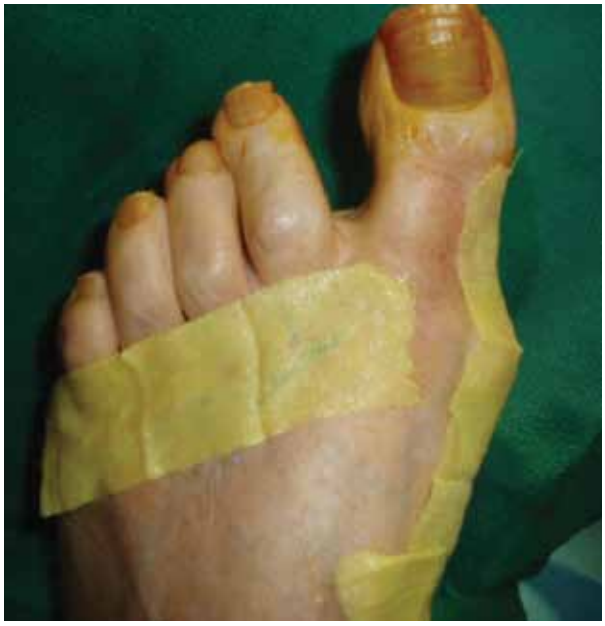
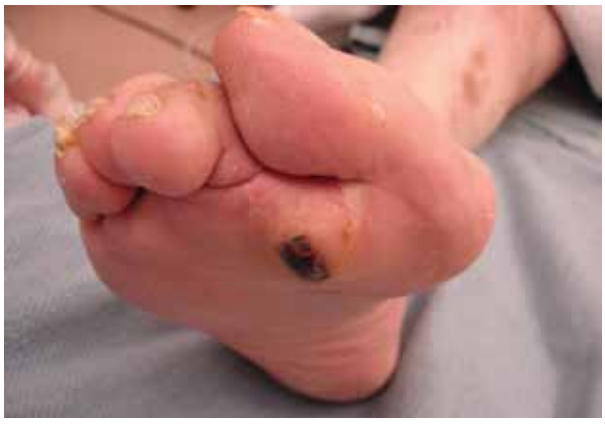


Figure 3. Postoperative appearance of rheumatoid foot pictured in Figure 2.

I feel the most exciting area of orthopaedic research these days is in harnessing the power of one's own body to heal and treat arthritis and other inflammatory conditions. For example, we use bone morphogenetic protein, we use autologous platelet-derived growth factors, and we use allograft and synthetic bone substitutes to improve healing rates, lessen postoperative pain and quicken recovery. These are naturally occurring substances in our own body that help us heal and form bone. The most wonderful opportunity about using biologic materials to help people heal and treat arthritis is that virtually every arthritis sufferer is a candidate for their use.

Harvesting and injecting autologous platelet-derived growth factors, for example, has proven to be a quick, cost effective, and minimally invasive ambulatory procedure for treating recalcitrant enthesopathies such as tennis elbow, plantar fasciitis and chronic Achilles tendinosis. This technique is no longer just for the high profile athlete.

In short, I feel that this is an exciting time to be an orthopaedic foot and ankle surgeon because we have so many more options to offer patients who suffer from arthritis and other inflammatory conditions of the musculoskeletal system.



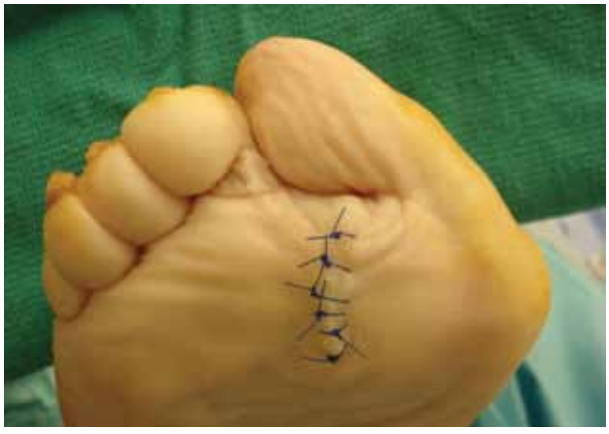


Figure 4 and 5. Pre and postoperative appearance of ulcerated foot healed by ortho biologic technique.

My doctor said I needed a hip replacement.

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When you plan your surgery – plan for your *Recovery*, too

Orthopedic injuries can be debilitating and painful, especially in older adults. The unplanned surgery, illness or injury can cause a person to put life's plans on hold to undergo procedures, to rehabilitate and to make a full recovery.

After an orthopedic injury or procedure, patients often need additional aggressive rehabilitation in order to reach their goal of returning home to an independent lifestyle. The role of today's skilled nursing facilities (SNF) has transformed. For many post-hospital patients, the SNF has become the primary source of outcomes-targeted rehabilitation services, thus expanding its role to post-hospital medical and rehabilitation provider. SNFs are caring for people of all ages, not just the elderly. As the average age of patients needing skilled nursing and rehabilitation steadily declines, the goals and expectations of the industry are changing.

Many SNFs offer comprehensive rehabilitation programs for orthopedic patients with diagnoses including bone fracture, arthritis and total joint replacement. The programs are designed to improve range of motion and strength, decrease pain of affected joints and achieve patient goals necessary to assure a safe, successful and quick return home. Often patients who undergo additional post-hospital rehabilitation for orthopedic injuries see benefits including reduced post-hospital complications, increased ability to ambulate independently, improvement in self-care skills, reduced pain, increased confidence, ease of mind and satisfaction and an enhanced quality of life.

What should a person look for when searching for post-hospital orthopedic care?

When a person is looking for a place to recover from an orthopedic event, they should look for a provider with a proven track record of success, also known as "outcomes." The rehabilitation team that a patient selects will strongly impact recovery. Questions to consider include:

- How many patients with my specific medical problem has the SNF treated?
- How does the SNF measure the progress that patients make?
- What evidence demonstrates the SNF team's success in improving patients' ability to care for themselves, stand, walk or move from bed to chair independently?
- What evidence shows the SNF team's success in helping patients and families confidently manage at home?

While a primary factor in your decision should be the quality of rehabilitation offered at the SNF, your decision will also be based on the services and accommodations that are offered beyond the therapy gym. Some things to consider in making your decision are:

- **Patient and family education.** Does the SNF offer patient and family education sessions to thoroughly prepare them for their transition home? Proactive self-care measures that reduce the risk of injury and focus on independence, healthy lifestyle and medication management are often incorporated in education for orthopedic patients and their caregivers.
- **Home exercise programs.** After leaving the SNF, is the patient provided with a detailed home exercise program and adaptive equipment training to further enhance the recovery process?
- **Home evaluation.** Does the SNF complete a

home evaluation before discharging patients to help recognize barriers that may cause a person to reinjure the joint or create a new injury during the recovery process?

In some cases, short-term patients are not likely to shop around and compare post-hospital care providers as they would long-term care centers. Instead, they are likely to take a recommendation from a physician, friends and/or hospital employees. The following are some guidelines to consider when choosing a SNF for post-acute care:

- **Appearance and general atmosphere:** Are the rooms clean and comfortable? Are patients well-groomed and neatly dressed? Are the grounds well cared for?
- **Skilled nursing staff:** Is the staff courteous, positive and attentive? Does there appear to be a high morale among staff?
- **Medical Care:** Can each patient choose his/her physician? Are other medical services provided such as dental, optometry, etc.? Is there a physician available in an emergency? Are care plans individualized to fit each patient's needs?
- **Dietary Services:** Are meals served in the dining room? Are between-meal snacks offered? Can family members eat with the patient? Are there various menu items to accommodate personal preferences? Is there a registered dietitian? Do they accommodate specialized diets?
- **Family Services:** Are lounges available for socialization? What are the visiting hours? Is ongoing education and support offered? Are family members encouraged to participate in the care of their loved one?
- **Insurance:** Is the center contracted with your insurance plan? Are they Medicare certified?

The rehabilitation team that a patient selects can strongly impact his or her recovery. It is important to choose a post-hospital care provider that has a proven track record of success and commitment to quality care.

J. STEVE SMITH, M.D.

What Is Reverse Total Shoulder Replacement?

There are numerous reasons for shoulder pain. Two of the more common explanations for shoulder discomfort are rotator cuff tendon tears and arthritis. The rotator cuff is a group of four muscles that work in unison to elevate the arm and maintain balance within the shoulder's ball and socket joint. Arthritis is defined as the loss of cartilage in a joint. Most patients are familiar with arthritis in the knee, hip, or spine, but the same condition is also frequently seen in the shoulder joint. When "Arthur" occurs in the shoulder, pain and loss of motion are the usual consequences. The combination of these two conditions (rotator cuff tears and arthritis) can lead to a very debilitating situation in the human shoulder.

As a shoulder surgeon, I often see patients with findings consistent with both arthritis and a cuff tear. Our treatment options for this condition are limited. Cortisone injections can often relieve the discomfort and pain. The duration of relief from this injection is highly unpredictable. However, even with decreased pain, the loss of strength and function still remain a problem because of the torn rotator cuff muscles. In fact, the patient's shoulder weakness is often the biggest complaint. If nonoperative treatments (e,g, physical therapy, anti-inflammatory medicines, injections, etc.) do not alleviate pain and improve function, then a Reverse Total Shoulder Arthroplasty (RTSA) may be a surgical alternative.

RTSA is shoulder replacement that aims to improve both strength and range of motion, as well as alleviate pain. As mentioned previously, the shoulder is a ball and socket joint that resembles a golf ball resting on tee. Simply stated, a standard shoulder replacement consists of replacing the bones with a metal ball and a combination plastic/metal socket. This surgery works very well to alleviate pain, but in order to be successful, the rotator cuff muscles have to be functioning. If these muscles are torn, then a standard replacement will eventually fail because these muscles are not functioning to keep the metal ball seated on the plastic cup. This causes shoulder instability that leads to premature wear on the plastic and ultimate failure of the surgery with recurrent pain. The solution to this problem is the RTSA. This type of shoulder replacement puts the "ball on the socket and socket on the ball" thus reversing the components. With this procedure, the shoulder's mechanics are altered and increased stability occurs. Furthermore, this allows the larger muscles that surround the shoulder joint, namely the deltoid muscle, to elevate the arm and increase both function and strength. Thus, for a shoulder with arthritis and tears of the rotator cuff, a RTSA is a significant advancement in shoulder surgery to deal with a difficult problem.

If you have a shoulder with these conditions, then you may be a candidate for a RTSA. My patients stay overnight in the hospital and the recovery process usually takes a few months. Physical therapy after the surgery is a mainstay to regain motion and build up shoulder strength. A decrease in pain and an increase in shoulder function are the goals of this surgical intervention.

ERNEST A. EGGERS, M.D.

How Long Do Joint Implants Last?

Throughout the last 40 years there has been considerable confusion as to the lasting ability of implant surgery. In the 1970s and 80s, we thought the implants would last about 10 to 12 years before another operation would be needed. This, of course, has proved to be far from accurate. In the beginning all hip and knee replacements were cemented. Instrumentation was mediocre or worse. Learning curves for many surgeons were slow. A great deal of research and intellectual curiosity over the last three decades has given us optimism for long-lasting artificial joints. I will deal with the hip and knee separately.

HIP

In the 70s and 80s most surgeons cemented all hips. In 1981 I started with cementless fixation of the hip. At that time there was no prognosis for the future and it was slow to be accepted in the United States and Europe. Changing to titanium stems with improved ingrowth surfaces, precision instrumentation and sizing and better bearing surfaces have given patients the hope for a permanent solution. I now have cemented hips functioning after 30 years showing no signs of failure. There are also uncemented hips continuing to survive after 25 to 28 years. The plastic liner in the socket may wear out prematurely, but this is easily replaceable.

Why would some patients have such long-term survival and others face an early loosening or instability problem? The first hip replacement is the best chance for a long-term and possible lifetime success. But wait – why do we still have failures with the new and improved techniques and implants?

The expertise of the surgeon is extremely important. Other factors are not under the control of the physician, including bone quality, failure of a patient's bone to grow onto a metal implant, infection, instability of the joint and wear products affecting the bone and the function of the joint (whether it be plastic or metal/metal). We are now finding that eliminating plastic from the joints does not mean a lifelong hip. Some patients do not have a tolerance for even a small amount of metal-wear product. Ceramics have also had their problems and may not be the final solution. Other bearing surfaces are currently being investigated by several companies.

It boils down to one fact only, and that is the physician cannot guarantee a lifelong joint replacement. With all of our high-tech advances we may well be able to give many patients a 20-year, 30-year or even longer survival, possibly the remainder of their life. Bone quality, physical activity or abuse, and human response to foreign substances may always be capable of defeating high technology advances. We continue to improve our products and strive to give many individuals a permanent hip.

Now with many cementless and cemented knees well over 20 years and functioning, we have dispelled the 10-year expectation that has pervaded the population.

KNEE

The knee implant had started out much less predictable in the 70s and 80s; hence partial knees were more popular in the 80s and 90s because the procedure was less invasive and could always be converted to a complete knee. Cementless technology began in 1982, and I now have patients out over 25 years with well-functioning knee joints.

This is not to say that all knees of the 80s and 90s will survive indefinitely. Certainly we have dismissed the 10-year myth that has crept into much of our population. As in the hip, the first knee replacement surgery is the most important. Revisions are never as acceptable in function, even if they are successful. Improvement in instrumentation, geometry of the implants and better cement technique has led to increased success. Cementless knees in the younger population have also shown great promise for longevity.

A rotating platform started by DePuy in the late 70s has given long survival and low plastic wear rates. I have numerous patients over 20 to 25 years out with functioning rotating platform joints.

Cementless knees started in the 80s lost popularity because only a few companies had good ingrowth fixation to avoid loosening. This technology is now improved, particularly with the new titanium ingrowth surfaces, and may well produce a knee that is permanent.

The Nex-Gen of Zimmer Company is the most widely used knee in the United States. It has enjoyed the best survival rates according to the Swedish, Australian and British registries. In 2006 Zimmer Company introduced the gender alternative in the Nex-Gen series, giving a wider range of sizes and geometric changes that more closely personalized the anatomy in some women. Tracking of the kneecap in a woman is different than that of a man simply by a variance in the anatomy of the pelvis. The Gender knee takes into account a slightly lateral tracking of the patella and also the smaller size of the patella itself.

Biomet and DePuy-Johnson Johnson have also had long-term success with their implants, with outstanding wear rates of their plastic. The Biomet Signature knee has a prior-to-surgery MRI scan of the joint along with the hip and ankle axis, making the instrumentation more customized to the patient. The joint itself is standard, but the instrumentation is personalized. This has led to smaller incisions, lower blood loss and decreased operating time.

Most of the other major companies, and even some smaller, have adopted this same process and it will be a standard in the industry.

Now with many cementless and cemented knees well over 20 years and functioning, we have dispelled the 10-year expectation that has pervaded the population. Expertise of the surgeon at initial implantation is most important. After that the activity level, weight of the patient, and other abuses will all help to define the wear rate of the modern knee prosthesis. The knee appears to be approaching the longevity of the hip, and this is a very satisfying direction for both physician and patient.

Overview of Healthcare Reform

BY: BONNIE K. CIRESI, CPA, PARTNER

MOUNTJOY CHILTON MEDLEY LLP

On March 23, 2010, President Obama signed into law the Patient Protection and Affordable Care Act (the "Act"). The Act contains more provisions for discussion than space allows in this publication, and there are many more details that are yet to be defined. This article summarizes some of the major provisions of the Act and includes a time line of specific provisions as they relate to individuals and businesses.

The overall goal of the Act is to expand access to health care coverage by requiring most U.S. citizens and legal residents to have health insurance. It creates state-based American Health Benefit Exchanges and Small Business Health Options Program (SHOP) Exchanges through which individuals and small businesses can purchase coverage. Premium and cost-sharing credits will be available to individuals and families with income between 133-400% of the federal poverty level (the poverty level is $18,310 for a family of three in 2009). It also expanded Medicaid eligibility to 133% of the federal poverty level. Other provisions of the Act include the following:

- A temporary reinsurance program for employers providing health insurance coverage to retirees over age 55 who are not eligible for Medicare.
- The Consumer Operated and Oriented Plan (CO-OP) program to foster the creation of non-profit, member-run health insurance companies in all 50 states.
- Requires guarantee issue, renewability, removal of lifetime benefit limitations, and prohibition of pre-existing condition exclusions for children in health insurance plans.
- Creation of an Independent Payment Advisory Board (15 members) to submit legislative proposals to reduce the per capita rate of growth in Medicare spending.
- Reduces Medicare Disproportionate Share Hospital (DSH) payments initially by 75% and subsequently increase payments based on the percent of the population uninsured and the amount of uncompensated care provided (effective fiscal year 2014).
- Allows providers organized as accountable care organizations (ACOs) to share in the cost savings they achieve for the Medicare program. An ACO must agree to be accountable for the overall care of their Medicare beneficiaries, have adequate participation of primary care physicians, and define processes to promote evidence-based medicine, report on quality and costs, and coordinate care.
- Creates an Innovation Center within the Centers for Medicare and Medicaid Services (CMS) to test, evaluate, and expand different payment structures and methodologies to reduce program expenditures while maintaining or improving quality of care.
- Establishes a non-profit Patient-Centered Outcomes Research Institute to identify research priorities and conduct research that compares the clinical effectiveness of medical treatments.

LOUISVILLE ORTHOPAEDIC CLINIC 40

- Establishes several demonstration grants for alternatives to current tort litigations and independence at home along with various pilot programs regarding bundled Medicare and Medicaid payments for an episode of care.

What does the health care future hold for individuals and businesses?

In 2010, small employer health insurance credits began for certain groups of employers; children (under 27 years) must be allowed on employer's health plans; rules for adoption credits were eased; and a 10% excise tax on tanning services began.

In 2011, severe limits are placed on reimbursements from FSAs, HRAs, and HSAs for over-the-counter medicines. Also, the penalty for non-qualifying distributions from HSAs increases from 10 to 20%. Most importantly, in 2011, all employers will be required to report the value of healthcare benefits on the employee's W2.

Big tax changes begin to take place in 2013. Individuals making more than $200K (couples making over $250K) will have their Medicare payroll tax increased from 1.45% to 2.35%. A 3.8% tax on unearned income will be added. Unreimbursed medical expenses (for taxpayers under 65 years) will have to exceed 10% of AGI (adjusted gross income) to be deductible. This is up from the current 7.5%. Flexible spending accounts (FSAs) will be limited to contributions of $2500, and there will be a new 2.3% tax imposed on medical device manufactures.

2014 is the year of the penalty. Large employers (more than 50 employees) not offering health care coverage will be penalized $2000 for each employee. You might note that this is substantially less than what the employee's health insurance will cost. Many believe these penalties will be increased because a large company would save money by dropping employer group plans and paying the penalties to save money. Their employees could then purchase their own health insurance from the state exchange. Individuals who do not carry health insurance will be charged the greater of 1% of their taxable income or $95 each, with increases in each of the 3 following years. The family penalty will be capped at $2,250 (again substantially less than the value of health insurance), and by 2016 penalties will be indexed for inflation. Although, there is a new refundable tax credit for low- or moderate-income families buying certain health insurance, **an excise tax will be added to all health insurance providers.**

Changes in 2018 are aimed at the "Cadillac" (high cost, employer provided) health insurance plans. There will be a stiff 40% excise tax imposed on individuals with plans valued above $10,200 per year and $27,500 for family plans.

As you can see from this partial listing, there are many changes to expect and many more to come. Proactive preparation and planning will best position individuals and businesses for the potential impact.

BRACE YOURSELF!

An orthopedic brace just may be what the doctor orders

BY SONJA RAWLINGS, GOULD'S DISCOUNT MEDICAL

Top 5 Health Conditions Where an Orthopedic Brace Can Help Ease the Pain

1. Carpal Tunnel Syndrome
2. Lower Back Pain
3. Sports Injuries to Knee, Wrist, Ankle
4. Osteoarthritis
5. Plantar Fasciitis

After a visit to her orthopedic doctor, Emily Smith had a definitive diagnosis for what was causing the pain that radiated from her wrist and down into the palm of her hand: carpal tunnel syndrome. But her doctor's prescription for pain relief was twofold.

"My doctor recommended over-the-counter pain medication – and a wrist brace," said Emily, who most often felt pain in her wrist while holding a telephone or the steering wheel in her car.

Whether they have carpal tunnel syndrome, osteoarthritis lower back pain or even a sports injury to the ankle or foot, patients like Emily are increasingly finding that the doctor's prescription for orthopedic pain relief includes "bracing."

In fact, braces, which provide a mechanical mechanism to reduce pain and increase joint stability, are today one of the first lines of treatment. Such bracing is designed to stabilize and alleviate pressure in the affected area – and to promote healing.

General awareness of orthopedic braces has soared in recent years due in large part to the proven effectiveness of braces and the growing endorsements of basketball, football and soccer athletes wearing braces on the court and on the playing fields. Couple that with all the related advertising featuring these athletes and orthopedic products, and it's easy to see why braces have grown in popularity.

And whether off-the-shelf or custom-made, orthopedic braces, also known as orthotic devices, are now one of the most common, noninvasive ways to:

- Reduce stress to the affected area
- Immobilize a joint(s)
- Assist or restrict movement in a given direction
- Reduce weight bearing forces
- Speed healing
- Correct the shape of the body

Orthopedic braces and supports also are commonly prescribed for use following surgery and in the management of such debilitating diseases as spinal stenosis, which affects the spinal canal and places pressure on the spinal cord and nerves. And for patients who have suffered a minor foot fracture, "foot casting" has been replaced by the much more comfortable – and removable – cam walker or orthopedic brace in some instances.

Studies also have shown that for some patients, orthopedic braces have meant the need for fewer prescription pain medications or over-the-counter anti-inflammatory drugs.

Proper fit is key to effectiveness

But to maximize effectiveness, an orthopedic brace must first be properly selected and fitted, said Ken Gould of Gould's Discount Medical, which has sized and custom fitted thousands of orthopedic braces and other orthopedic supports since 1993.

"It's critical that the orthopedic brace meets its intended function and is properly fitted," said Gould. "When choosing and fitting braces, the first question we always ask is: 'what is the doctor's diagnosis?' It's not just about selecting the sleekest looking brace or the most lightweight brace off the shelf. Each brace needs to be selected and fitted to ensure the proper placement of the brace, adequate leverage, sufficient surface contact to the affected area and the ability of the brace to remain in its proper place during the night or day."

Bracing to meet a wide range of patients' needs

Today's orthopedic braces and supports incorporate advanced medical technology, which means that the hundreds of "off-the-shelf" products readily available at the larger medical supply companies can be adjusted and fitted by an orthotics specialist to meet the specific needs of each patient.

"Braces and other orthotic devices don't necessarily have to be custom manufactured," said Gould. "Products

today can be adjusted when they are fitted, which means that the patient can get the needed brace today. And for patients who may be homebound, consultations and fittings can now be done in the home or at a nursing facility because there are so many product choices."

Some of those choices include:

Back brace: Rigid and soft back braces are designed for a wide range of back problems, and all limit the motion of the spine. They also relieve the pressure from the lumbar discs to alleviate lower back pain and discomfort. For fractures or postoperative fusions, back braces are used to enhance the healing process and minimize discomfort. Braces also are used in the treatment of scoliosis to help decrease curvature in the spine.

Wrist brace: Available for the right or left hand, this type of brace is commonly used to restrict movement to protect and reduce pain in the wrist and forearm.

Knee brace: These braces can be as simple as a stretchy sleeve or as advanced as a fitted offloader hinged brace. They provide extra support and/or restrict knee movement. Knee braces are often used in the treatment of osteoarthritis to help reduce pain and increase joint stability.

Ankle brace: Provides additional support to ankle ligaments and muscles to enhance stability, ankle control and/or drop foot.

Night splint: Used to relieve plantar fasciitis, this splint is designed to hold the plantar fascia and Achilles tendon in a lengthened position overnight, so that they can be stretched more effectively. Your doctor also may prescribe off-the-shelf or custom-fitted arch supports (orthotics) to help distribute pressure to your feet more evenly and to help reduce swelling and discomfort and enhance circulation.

Contracture bracing: For patients with tissue shortening and decreased range of motion in their joints, these orthotics are specially designed to support, protect and correctly position the joint(s).

Private insurance and Medicare cover many orthopedic devices, but as with all healthcare insurance, a call to your insurance provider is the best way to alleviate any doubt regarding coverage.

An orthopedic device is not a cure, but it can allow people to get back to doing the things they love to do.

Sonja Rawlings is a Rehabilitation Tech, Certified Diabetic Shoe Specialist, and Orthotic Fitter for Gould's Discount Medical in Louisville, Kentucky. Gould's is one of the largest independent home medical equipment companies in the region. For more information on orthopedic braces and other orthotic devices, visit www.gouldsdiscountmedical.com or call (502) 491-2000 or toll free at (800) 876-6846.

E-Prescribing

Facing the Challenges of Today's Technology

Much like electronic medical records, e-prescribing solves some problems but also creates new ones. E-prescribing solves illegibility and oral miscommunication issues, but creates new challenges such as alert fatigue and additional costs. E-prescribing systems may be stand-alone (for e-prescribing only) or integrated with an electronic medical record (EMR). The primary challenges associated with e-prescribing are the costs of software and time spent on training, maintenance, customizing, upgrades, and interfaces. Some stand-alone e-prescribing systems are free, but some may cost as much as $2,500 per physician. Office-based EMRs with e-prescribing capability can cost from $25,000-$45,000 per physician.

Risk Management Challenges

- **Choosing a system**

  Be sure to obtain physician input and review of the software prior to purchase to ensure it meets the needs of your practice. Consider talking to other medical practices already using the software, not only to assist in your decision, but to anticipate flaws or errors existing users may have encountered. Lastly, establish a process to address problems discovered after implementation.

- **Alert fatigue**

  Physicians may ignore e-prescribing alerts for a variety of reasons (e.g., excessive alerts or alerts that are not clinically useful). Again, input from physicians prior

to implementation can help prioritize and choose alerts appropriate to the practice.

- **Additional features creating risk**
  For example, some software programs require a diagnosis listed with each prescription. Consider the following: a patient is on Depakote for bipolar and seizure disorders, but the e-prescribing system only notes bipolar disorder because of its one-diagnosis limitation by design. Subsequently, the patient becomes manic and the on-call psychiatrist starts the patient on lithium for the bipolar disorder. Checking the e-prescribing system, he notes Depakote was prescribed for bipolar disorder so he titrates the Depakote to discontinuation. The patient has a seizure during the titration that leads to death.

  The on-call psychiatrist assumed the patient was on Depakote solely for bipolar disorder and not seizures. If the diagnosis feature had been more extensive or had not been used with the software, the on-call psychiatrist might have explored further before discontinuing the Depakote. Again, input from physicians prior to implementation may help prevent potential risks.

- **Interoperability**
  Another issue is whether your e-prescribing system fully integrates with pharmacy systems. Using the previous example, what if the diagnosis was changed in the psychiatrist's system, but the pharmacy system did not automatically update this information? Be sure to investigate the compatibility of your system with others in your area. Not all pharmacies have e-prescribing capabilities. Many rural areas do not have the broadband internet access required.

- **Reconciliation**
  Physicians and pharmacies may find it difficult to trust the completeness and currency of the medication history and reconciliation, since medication histories often derive from multiple sources. Continue to verify medication histories with patients, and update records accordingly.

- **Indemnity or hold harmless agreements**
  Finally, be cautious about entering into hold harmless agreements with software vendors. Your ProAssurance policy excludes from coverage liability assumed under any contract or agreement, unless the liability would be imposed by law in the absence of the contract or agreement. It covers only the insured's professional liability and not the liability of another party that the insured may assume through an indemnity agreement. If you are asked to sign such an agreement, you should have your attorney carefully review the agreement and your insurance policy.

Medicare's E-Prescribing Incentive Program

Physicians may wish to investigate incentives to help recoup the costs of an e-prescribing system. In 2009 Medicare initiated a program offering financial incentives for physicians using "qualified" e-prescribing systems. A qualified system must:

1. Generate a complete, active medication list incorporating electronic data received from applicable pharmacies and pharmacy drug plan(s), if available;
2. Select medications, print prescriptions, electronically

transmit prescriptions, and conduct alerts (which include automated prompts offering information on the drug being prescribed, potential inappropriate dose or route of administration, drug-to-drug interactions, allergy concerns, warnings, or cautions);

3. Provide information related to the availability of lower cost and therapeutically-appropriate alternatives, if any;
4. Provide information on formulary or tiered formulary medications, patient eligibility, and authorization requirements received electronically from the patient's drug plan (if available); and
5. Meet the Part D specifications for messaging that were implemented April 1, 2009.

For more information on the incentive program, go to the Centers for Medicare & Medicaid Services website at: http://www.cms.hhs.gov/eprescribing.

Regardless of the e-prescribing software you choose, conduct a thorough investigation, obtain physician input and review, verify medication histories, and be sure to use software to supplement (not replace) medical decision making.

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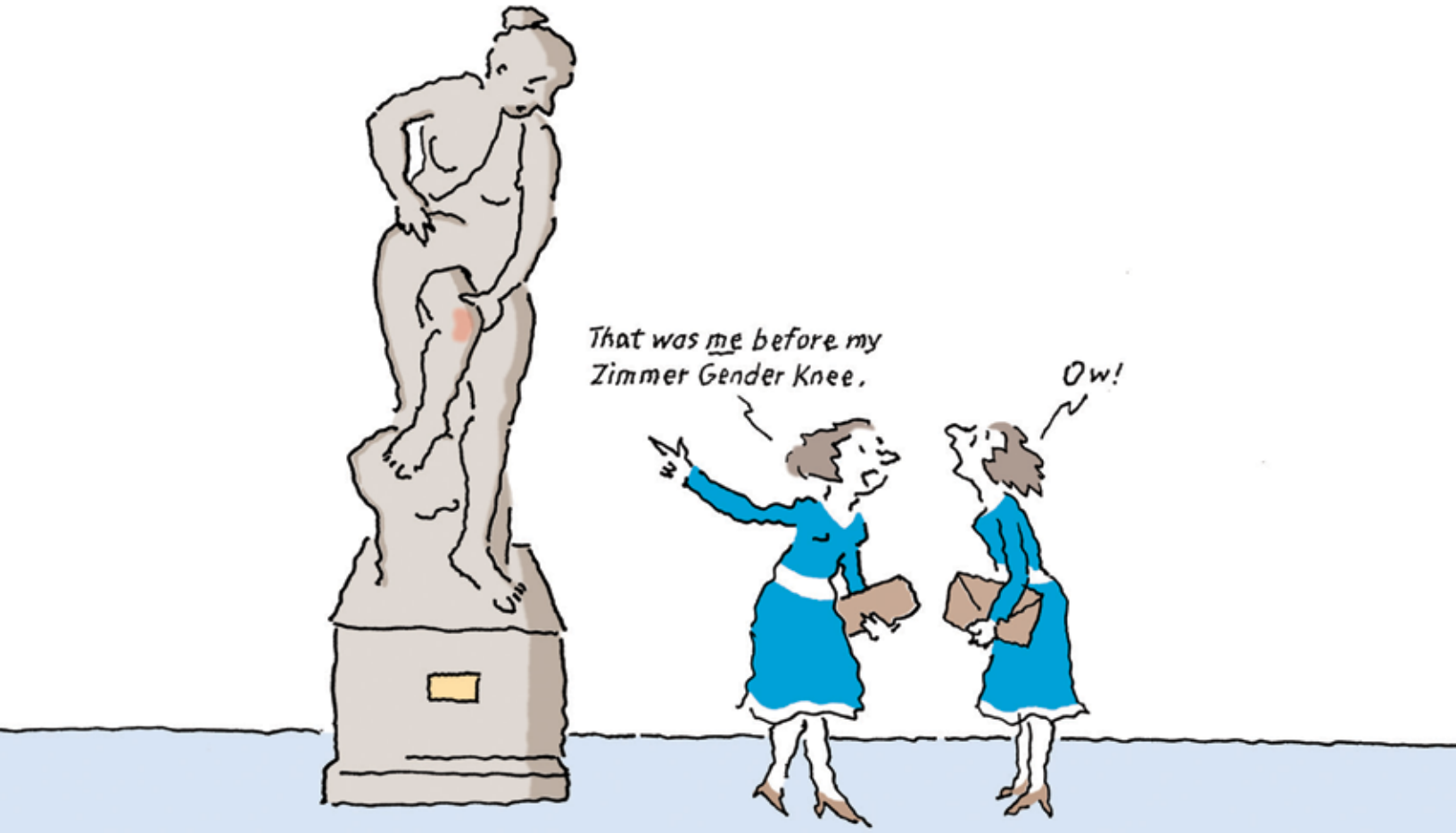
This article is not intended to provide legal advice, and no attempt is made to suggest more or less appropriate medical conduct.



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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, with nearly 14,000 hip and knee replacements. 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 thirteen years ago to perform an FDA study on metal/metal hip replacement.

Dr. Eggers was regarded a top orthopaedist in joint replacement by the Consumer Research Counsel of America, beginning fifteen years ago and recently in 2010. His specialty also includes partial knee replacement for over thirty years, and minimally invasive incision of both hip and knee.

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.

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 Volvo 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 reaching responsibilities as a professor at the University of Iowa. He is board certified in orthopaedic surgery.

DONALD T. MCALLISTER, M.D.

Dr. McAllister's love of and participation in sports provided the stimulus that led him to specialize in treating sports-related injuries. His major areas of concentration are the shoulder, hip and knee. His work, therefore, commonly includes arthroscopy, ligament reconstruction and joint replacement. He is a member of the Jefferson County Medical Society, the Kentucky Medical Association and the American Medical Association. He is board certified in orthopaedic surgery by the American Board of Orthopaedic Surgery, and is a member of the American Academy of Orthopaedic Surgeons, American College of Surgeons, American Orthopaedic Society of Sports Medicine and the Arthroscopy Association of North America.

Dr. McAllister was born in Chicago, Illinois, but spent most of his early years in Kentucky. He is a graduate of the University of Notre Dame and the University of Kentucky Medical School. He completed his orthopaedic residency at Yale University in New Haven, Connecticut, and a fellowship in Los Angeles.

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, and he is the team physician for Ballard High School and Kentucky Country Day.

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 orthopedic 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, most recently in 2010.

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 Orthopedic Surgeons and a member of the American Orthopedic 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.

ROBERT A. GOODIN, M.D.

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.

MATHEW T. PHILLIPS, M.D.

Dr. Phillips specializes in the treatment of the spine.

Dr. Phillips earned his undergraduate degree at the University of Illinois in Urbana, Illinois and attended Rush University in Chicago, Illinois where he received his Doctorate in Medicine. While at Rush University he received the Dean's Fellowship Research Grant. He completed his orthopedic surgery residency at Saint Louis University Hospital. He will complete his orthopedic spine surgery fellowship with Spine Surgery PSC in Louisville, Kentucky in July 2011. He has given numerous presentations and contributed to medical journals.

TY E. RICHARDSON, M.D.

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.

LOUISVILLE ORTHOPAEDIC CLINIC

J. STEVE SMITH, M.D.

Dr. Smith specializes in orthopaedic sports medicine and athletic-related injuries. He completed his fellowship training at the Kerlan-Jobe Orthopaedic Clinic in Los Angeles, California; this intensive training and research program is one the country's largest and most respected sports medicine fellowship programs.

He was on the medical staff of the LA Lakers, LA Dodgers, USC Football Team 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 attended 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. He is board eligible in orthopaedic surgery and is a member of many national, state and local medical societies.

LORI L. EDMONDS, APRN

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.

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 a member of Sigma Theta Tau.

KATE S. HAMILTON, PA-C

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 the University of Kentucky with a B.S. in Dietetics and Physician Assistant Studies.

Prior to her employment with Louisville Orthopaedic Clinic, she had extensive training in the orthopaedic clinic at Fort Knox, Kentucky.

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

MELISSA T. PARSHALL, MS, PA-C

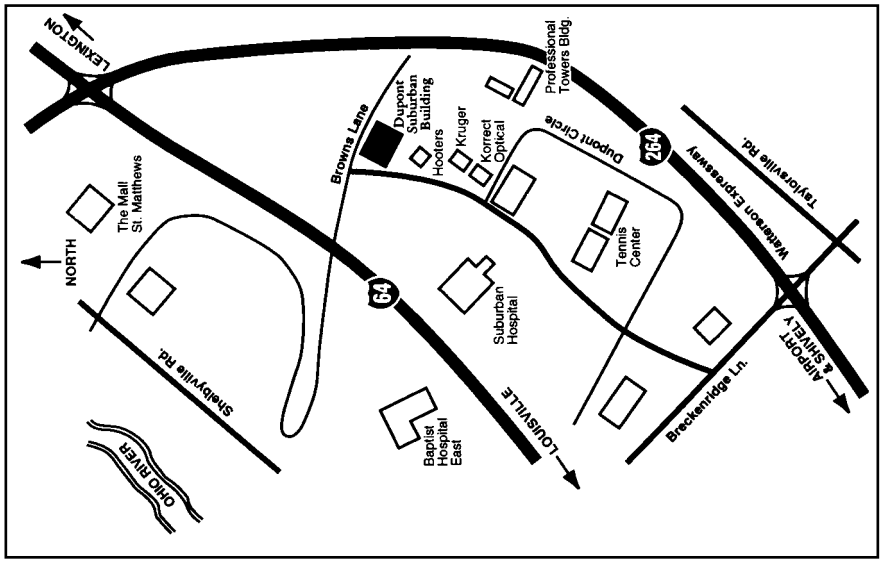
Melissa is a certified Physician Assistant specializing in orthopaedics under the supervision of Scott D. Kuiper. She was an athletic trainer during her four years at Hanover College and graduated with a Bachelor's degree in Sports Medicine. She worked as research assistant/athletic trainer at Methodist 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.

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.

CHRISTINA L. FIELDS, APRN

Christina is a nurse practitioner working in partnership with Norman V. Lewis, M.D. specializing in surgery of the knee. She graduated from the University of Louisville with a Master of Science degree in Nursing in 2002. She also graduated cum laude with a Bachelor of Science in Nursing from the University of Kentucky in 1997.

Christina was board certified as a family nurse practitioner by the American Academy of Nurse Practitioners in 2003. She is a member of the American Academy of Nurse Practitioners and the Kentucky Coalition of Nurse Practitioners and Nurse Midwives.



LOUISVILLE ORTHOPAEDIC CLINIC

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From I-71: Take Watterson Expressway, I-264 West to Breckenridge Lane North, Exit 18B. Turn right onto the first street, Dutchman's Lane. Proceed to end of street.

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4130 Dutchman's Lane is the last building on the right, the Dupont Suburban Building. Main office is in suite 300. We occupy the entire third floor. Handicapped accessible parking is available in both front and back parking lots. Automatic door entrance is available from the back parking lot.

Outsourcing Payroll Protects and Enhances Practice Growth

BY WAYNE BARBER, ADVANCED PAYROLL SOLUTIONS

Operating an orthopedic medical practice requires skill, personal interaction, and specialized medical knowledge. Successfully treating patients is top on the priority list, yet running a practice can take away from the focus of medicine. Outsourcing key business functions and surrounding your practice with experienced partners can relieve the burden of running the business and get you back to your passion of orthopedic medicine.

One of the most time-consuming and complex aspects of operating an orthopedic practice, aside from billing, is managing payroll and tax for staff. Keeping up with current local and federal tax laws is laborious and confusing. Making payroll mistakes can be costly and cumbersome. Keeping this function in-house also many times requires a full-time staff person, adding another layer of complexity to a medical practice. There is an easier way!

Partnering with a payroll expert can help you focus on your core business, practicing medicine, while saving time, reducing costs and simplifying your payroll process. A payroll partner will serve many functions for you, including calculating all payroll taxes, virtually eliminating risk of compliance error, in addition to handling your payroll inquiries, saving you even more administrative time and expense. Outsourcing payroll will also eliminate the year-end crunch preparing W-2s and 1099s.

Another extremely important aspect of running a medical practice is protection. All medical professionals carry malpractice insurance to protect their license and practice. Similarly, partnering with a payroll expert takes the responsibility of payroll tax preparation, filing and deposits off of your practice. You are then protected from dealing directly with the IRS.

Whether you are a small family practice or a large multi-unit office, it will pay to outsource your payroll functions. What will those benefits specifically be?

Save Time and Money – Leaving payroll to the experts frees up hours that your staff can devote to other important parts of your practice, such as building and growing the practice. Here's why: a payroll partner will integrate with your accounting programs (such as QuickBooks), saving you the time and errors of re-keying your payroll data. All vacation, sick, and overtime can also be tracked. A payroll partner will keep you compliant with labor laws as well as offer you a full service HR solution for all your HR needs. Additionally, many payroll services will use an online solution, allowing you to stay connected and in control of your payroll 24/7 from anywhere.

Avoid Penalties – Calculating federal, state, and local employment taxes and filing payroll-related tax paperwork can be more than just a hassle. If it's done incorrectly, your medical practice may face penalties and even interest on money owed since the mistake was made. Outsourcing payroll does away with the risk of many of these costs and hassles because not only will a payroll expert conduct calculations for you, they assume the penalties if there are any, not your medical practice.

Access to Technology – Each software upgrade or conversion takes time and money. By engaging a payroll expert, you have automatic access to integrated solutions that put a wealth of management data and reports at your fingertips. There will no longer be a need for costly upgrades.

Support Practice Growth – Probably the most important benefit is that choosing to outsource with a payroll expert allows you to focus on core functions of the medical side of the business. A good partner will understand your needs and concerns and provide you with the tools to grow, such as access to regular reports and recommendations for enhanced services. Outsourcing also provides a scalable model, built to grow as your practice grows.

Consider using a payroll partner who understands the specialized needs of running a medical practice. Advanced Payroll Solutions (APS) has that experience and is proficient in handling the needs of physician practices large and small. We understand the needs of a growing practice and work as a team to facilitate the best payroll and tax decisions to reduce practice costs and maximize profits. Learn more about how APS can help your practice today by visiting www.advancedpayroll.com.

About the Author

Wayne Barber has been with Advanced Payroll Solutions (APS) for 8 years. He earned an FPC certification from the American Payroll Association and will be sitting for the CPP in the fall of 2010. Wayne graduated from East Carolina University with a degree in finance and gained 10 years of payroll-related experience managing labor costs for over 200 contractors working for Coca-Cola, IBM and Equifax. He gained experience in both sales and as a sales manager with 8 years at Robert Half International.

APS was founded in 1991 and is headquartered in Louisville, Kentucky. As one of the region's largest independently owned and operated full-service payroll management firms, APS specializes in effortless, error-free, efficient electronic systems. APS provides full service payroll processing, HR and employee benefit solutions to simplify the employer role. APS processes payrolls for a variety of small to medium-sized companies (focused on a market of up to 500 employees). For more information about partnering with APS for your orthopedic medical practice, please visit www.advancedpayroll.com.

LOUISVILLE ORTHOPAEDIC CLINIC

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I've Got Tennis Elbow, But I Don't Play Tennis

Many persons routinely suffer the pain and disability of elbow pain, particularly tennis elbow. Despite its namesake, tennis elbow isn't necessarily due to playing tennis; rather it is a painful condition that develops over time in the tendons of the forearm muscles and their respective attachment site on the outside of the elbow—technically known as lateral epicondylitis.

It can be argued that the condition, lateral epicondylitis, is misnamed. The suffix "-itis" implies an inflammatory condition of the lateral epicondyle, or the bony prominence on the side of the elbow. The pain that develops with tennis elbow is more likely due to pathologic tissue changes in the tendon that have occurred over time that are not inflammatory in nature. Hence, it is more apt to define tennis elbow as a tendinosis or tendinopathy—a pathologic disorganization of the tissue at the cellular level.

The pathology of tendinosis begins when the tendons are exposed to repetitive stress to such a degree that the rate of microtearing in the collagen fibers exceeds the rate of repair, creating a breakdown in the normal tendon repair cycle. This results in the degradation and disorganization of the collagen fibers found in the tendon, creating a weakened and painful structure.

Although one would think that the pain is caused by inflammation, the pain from tendinosis is theorized to be due to mechanical causes (i.e., the physical microtearing and separation of collagen fibers) or biochemical causes in the diseased tissue that act as chemical irritants. As well, tissue studies of tendinosis do not reveal significant typical inflammatory markers. This may explain why non-steroidal anti-inflammatories like ibuprofen don't often result in major pain relief, but may afford some relief in acute periods of pain.

Troy L. Grubb, PT, DPT, OCS, ATC is a board-certified orthopedic specialist in physical therapy and athletic trainer with KORT in Louisville, KY. Comments or questions to tgrubb@kort.com

The treatment of tennis elbow often involves the use of varying interventions based on the severity of the condition. These can include corticosteroid injections, medications, various treatments in physical therapy, and surgery. There is much ongoing research, including new techniques, to continually improve the positive outcomes of treatment.

Cortisone injections have shown to provide short-term relief of symptoms. It is thought that steroid injections alter the pH of the tendon, suppressing the activity of biochemical irritants in tendinosis. As well, corticosteroids may disrupt the cross-linking of disorganized collagen fibers, decreasing the mechanical strain on the fiber bundles.

Physical therapy interventions that are proving to be effective in the treatment of tennis elbow include manual manipulation, tendon loading through exercise, and augmented soft tissue mobilization.

Manual manipulation has been shown to decrease the pain and disability associated with tennis elbow. Specifically, manual manipulation refers to physically manipulating targeted joints and tissue in the elbow and wrist. Manipulation of the elbow has been shown to have a similar hypoalgesic (pain reducing) effect as spinal manipulation in the treatment of spinal pain. Mobilization of the elbow has also demonstrated an increase in grip strength in the immediate term after treatment and is also

thought to improve joint motion, reducing the likelihood of tissue impingement at the joint.

Tendon loading through exercise is thought to promote improvement in tennis elbow by stimulating the remodeling capacity of tissue. This is done in a very deliberate and graded manner to improve the structure of the tendon without inducing further damage. Research supports the model that the load imparted during tendon loading exercises stimulates collagen synthesis, promoting restoration of improved collagen fiber types. It is important to note that with many tendon loading programs prescribed for tendinosis there is often an initial increase in pain with a subsequent decrease over time.

Another form of treatment that is steadily proving to be useful is augmented soft tissue mobilization (ASTYM). ASTYM® is a noninvasive system of treatment that utilizes special tools to stimulate the initiation of the healing process to transform the injured tissue. This causes the resorption of degenerated tissue, remodeling of connective tissue, and regeneration of more appropriate collagen types. This system is used in conjunction with controlled stretching and strengthening to achieve positive results. Research is still ongoing and demonstrating favorable outcomes.

An emerging treatment is the injection of a patient's own blood products into the tendon known as Platelet-Rich Plasma, or PRP, treatment. This is theorized to stimulate the production of tissue growth factors that remodel and reorganize the tendon, leading to improved function and decreased pain. Research is limited, but promising.

In cases that do not respond to conservative treatment, surgery is often offered and can result in favorable outcomes.

Tennis elbow is the bane of existence for many people, often resulting in impairment of daily living and work tasks. In the treatment of tennis elbow, patience and a multi-modal approach are often key to a successful outcome. It is not common for only one mode of treatment to be effective in relieving the pain of tennis elbow; however, pursuing multiple avenues of care under professional guidance can bring relief to a condition common to many and a return to normal functioning. For more information, consult your physician, the many professionals at KORT, or go to www.kort.com.

Alliance Healthcare Solutions, Inc.

Ask any medical professional and they'll tell you they are very aware that the medical field is changing rapidly, especially as it relates to tracking patient care and the requirements surrounding Electronic Medical Records (EMR) and Practice Management Systems technology. As the government moves ahead with requirements to have all medical records electronically based the deadlines loom large for medical care providers to be in compliance or face financial disincentives. Through the HITECH Act of 2009 the government is offering incentives to healthcare providers to move them to EMR compliance. Now is an excellent time to look into what GE Centricity EMR/Practice Management Solutions are available for your practice.

Enter Alliance Healthcare Solutions, Inc. to help you in your quest for your EMR/Practice Management Solution. They have serviced clients in the healthcare field for more than 20 years delivering proven healthcare electronic medical records and practice management solutions from GE. Alliance Healthcare Solutions, Inc. is a Valued Added Reseller (VAR) certified partner with GE. With the experience to back up their excellent service Alliance Healthcare Solutions, Inc. focuses on providing custom solutions for small practices using GE's Centricity platform. Serving Kentucky, Indiana and the Midwest, Alliance Healthcare Solutions, Inc. offers additional services such as training and support, network engineering and hosting.

EMR is an outgrowth of the 2009 "Economic Stimulus Package." Known as the "HITECH Act", the overarching focus of the Act is to provide $31.2 billion for healthcare infrastructure and Electronic Health Records (EHR). The goals of the legislation are to create and expand the current U.S. healthcare IT infrastructure, promote electronic data exchange, and substantially and rapidly increase EHR adoption to 90 percent for physicians and 70 percent for hospitals by 2019. Initial spending began in 2009 and increased considerably in 2010. This trend will continue in 2011.

The HITECH Act provides incentive payments for Medicare and Medicaid providers. Physicians and other eligible healthcare professionals may apply for incentive payments from one of the programs. Both the Medicare and Medicaid incentive programs require that the provider demonstrate "meaningful use" of a certified EHR product. Beginning in 2011, physicians are eligible to receive Medicare incentive payments for being a "meaningful user of a certified EHR" product such as GE Centricity. These incentive payments are calculated on a per physician basis. The proposed payments are greatest in the first year, decreasing in amount for the following four years or until 2016, depending on the incentive program. Physicians who do not meet the "meaningful user" criteria will face penalties, calculated as a percentage of allowed charges, beginning in 2015 with a one percent penalty. These penalties increase each year up to a maximum potential cap of five percent per year for 2017 and beyond.

"We have been working with Alliance Healthcare Solutions since 2009. With our adoption of GE's Centricity platform into our practice we have noticed how well the solution works with multiple patient care issues. We have used GE's Centricity Analytics solution successfully and are on our way to implementing GE's Centricity EMR solution. We have been very pleased with the excellent customer service that Alliance Healthcare Solutions has provided for us in helping us to meet our EMR goals."

Peg Nixon
IT/Project Coordinator
Louisville Orthopaedic Clinic

Practices that have worked with Alliance Healthcare Solutions, Inc. and implemented GE Centricity solutions have experienced increased efficiencies in patient care and workflow management.

Alliance Healthcare Solutions, Inc. can be reached by calling 877-325-7000 or email Jimmy Blair at jblair@goalliance.com.

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