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Caring, dependable, supportive.
As the new President of Commonwealth Orthopaedics, I am pleased to provide you with the fall 2010 issue of Commonwealth Orthopaedics.

On behalf of our physicians and staff, I would like to introduce our new physician, Kevin C. Lutta, MD, an orthopaedic surgeon specializing in the diagnosis and treatment of foot and ankle conditions. Dr. Lutta began practicing at the Herndon office on August 30. To learn more about him please go to page 6 or visit our website at www.c-o-r.com/lutta.

I am also pleased to share with you an updated Commonwealth Orthopaedics physician directory on the inside back cover. We hope that you and your staff will find it helpful in directing patients to Commonwealth Orthopaedics.

We hope you will enjoy reading the articles in this issue and find them informative and interesting. As always, we appreciate your support and we look forward to providing your patients and their families with excellent orthopaedic care.

Sincerely,

Gordon L. Avery, MD
President
Commonwealth Orthopaedics

Welcoming Remarks

On the cover:
Dr. Kevin Sumida (left), team physician for Marshall High School, and John Reynolds, Certified Athletic Trainer (right), examine Garrett on the sidelines regarding his prior shoulder injury. Read how the certified athletic trainer and team physician worked collaboratively to rehabilitate Garrett's shoulder to enable him to play football and wrestle again, see his story on page 4.

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First Line of Defense

Garrett, a Marshall High School football player and wrestler, successfully rehabilitated his shoulder so he could get back to playing sports.

First he heard the pop, and then he felt the pain. Sixteen-year-old Garrett had dislocated his left shoulder during a tackling drill for his football team, the Marshall High School Statesmen. As an avid athlete who also wrestles for Marshall, Garrett didn't want to sit on the sidelines. Thanks to a unique collaboration between local certified athletic trainers (ATCs) and Commonwealth Orthopaedics, he didn't have to.

“ATCs are critical partners, and the first line of defense, in prevention and sideline management of sports injuries in student athletes,” says Kevin Sumida, MD, who teamed up with Marshall ATC John Reynolds to assess and treat Garrett's injury. “They evaluate the problem and initiate care. They work closely with us to determine the best course of treatment. Oftentimes, they supervise rehabilitation as well.”

Reynolds sent Garrett and his parents to see Dr. Sumida at Commonwealth. After weighing treatment options, they decided on rehabilitation rather than surgery. From that moment on, everyone worked together to help Garrett make a successful return to football, and then wrestling.

“We focused on exercises to build strength in his shoulder and restore stability,” explains Reynolds, who supervised the majority of Garrett's rehabilitation in Marshall's athletic training room. “As Garrett's return to football drew closer, Dr. Sumida and I communicated extensively to choose an appropriate brace and outline play progression for his coaches. We continued to work with him throughout the fall and winter to keep his shoulder as strong as possible.”

This close collaboration ensured a safe return to football and wrestling for Garrett, who relied on his ATC's expertise and support. “Mr. Reynolds was always there when I needed him. He made sure I knew the routine and could practice on my own. He gave Dr. Sumida up-to-date information about me so when I got to his office he'd already know what was going on,” he says.

Garrett's mother Holly says the partnership worked like a "synchronized machine" in coordinating her son's recovery. She feels fortunate to have the resources of a knowledgeable ATC working in concert with a skilled team of physicians in the community. “My husband and I were reassured that our son was getting the proper diagnosis and treatment. We didn't have to worry about whether or not he was following the rehabilitation plan because we knew he was being watched carefully. In our busy
Rebecca, 15, of Alexandria, relies on the expertise of her high school ATC to keep her performing at optimal capacity following an injury last fall. Rebecca suffered a stress fracture in the femoral shaft of her left leg during a game with her travel team, when an opponent cleated her in the thigh. She consulted Commonwealth surgeon Daniel Weingold, MD, who worked closely with her ATC to coordinate a safe and swift recovery.

“Once we had diagnosed and treated her stress fracture, I communicated with her ATC about the importance of strict activity limits until her injury was completely healed, followed by a properly directed therapeutic exercise program to build back her muscle strength,” Dr. Weingold says. “Fortunately, we caught her stress fracture before it progressed to a complete fracture, which would have been devastating for her and required painful surgery and a prolonged recovery.”

Rebecca spent a month on crutches, and then began walking and jogging, gradually increasing her intensity as the weeks progressed. “Dr. Weingold explained things really well and helped me understand what I should and shouldn’t be doing,” she says. “I returned to the soccer field in the spring and now I feel fine.”

The most common injuries among student athletes range from simple ankle sprains that may keep them out of a game or two, to torn ligaments and stress fractures such as Rebecca’s, which require an entire season to heal. Stress fractures often occur in the fall and spring, due to sudden increases in training intensity or overuse injuries. Problems also exist if a student enters a new sport without adequate knowledge of what to expect.

“Education and prevention are major areas of focus for ATCs,” says Reynolds. “To keep our students healthy and ready to play, many students take the personal fitness classes at Marshall High School. They also participate in off-season and pre-season conditioning programs, and our educational seminars on nutrition, concussion recognition and preventing communicable diseases such as the flu.”

Education is a vital part of the Commonwealth partnership as well. Every year, the practice sponsors a free ATC Workshop where local athletic trainers can interact with Commonwealth physicians and other healthcare providers to learn the latest evaluation and management techniques, improve skills and strengthen their working relationship. This popular event attracts more than 60 ATCs and team physicians from throughout the Washington metropolitan region.

“This is a great way to give back to the community and the ATCs appreciate the information,” says Bruce Zimmer, MD, one of the many Commonwealth surgeons who share their expertise as physicians for local sports teams (see sidebar on page 6). “As team physicians, we develop good relationships with the ATCs, so when students are hurt they can quickly consult with us about care or follow-up. And we get to know the kids and their families on a personal level, which makes the experience even more fulfilling.”

Now 17 and a Marshall High School senior, Garrett is excited to return to the football field as a middle linebacker for the Statesmen this fall. He’s also reassured that both John Reynolds and Dr. Sumida will be on the sidelines, watching out for him and his teammates. “If someone gets hurt, they’ll be right there,” he says. “They’ll be close to our team.”

Kevin D. Sumida, MD, graduated with a BA from DePauw University in Greencastle, Indiana. Dr. Sumida earned a medical degree from the University of Kentucky College of Medicine in Lexington. He completed his orthopaedic surgery training in Lexington before completing a fellowship in Sports Medicine at the University of North Carolina at Chapel Hill. In addition to his orthopaedic practice, he is also a clinical assistant professor at Georgetown University.

Daniel E. Weingold, MD, earned an undergraduate degree at Duke University in Durham, North Carolina. He completed his medical degree at the University of Maryland School of Medicine and finished his surgical internship and orthopaedic residency training at George Washington University Medical Center in Washington, DC.

Bruce S. Zimmer, MD, graduated magna cum laude with a BS from Virginia Commonwealth University in Richmond, Virginia, and then earned his medical degree from the Medical College of Virginia. He stayed on at the Medical College of Virginia to complete both his surgical internship and orthopaedic residency.

For full biographies and a complete directory of the physicians at Commonwealth Orthopaedics who perform these and other procedures, visit our website at www.c-o-r.com.
Serving the Community

As active members of the Washington metropolitan community, many Commonwealth Orthopaedic surgeons serve as team physicians for local professional, collegiate and high school athletic teams, as well as youth leagues and government law enforcement.

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<td>Bruce Zimmer, MD</td>
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Dr. Kevin Lutta graduated cum laude with a BA in Biology from Clark University in Worcester, MA. He earned his medical degree from Howard University College of Medicine in Washington, DC, where he was named to Alpha Omega Alpha Medical Honor Society. He completed his residency in orthopaedic surgery at Howard University Hospital and went on to a fellowship in foot and ankle reconstruction at Pennsylvania Hospital, part of the University of Pennsylvania Health System.

As an orthopaedic surgeon, Dr. Lutta is committed to helping his patients return to their desired level of activity and improve their quality of life. He is actively engaged in clinical research to ensure he provides his patients with the most advanced, state-of-the-art techniques for the operative and non-operative management of foot and ankle problems.

To schedule an appointment with Dr. Lutta at the Herndon office, call 703-810-5204.
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As the most powerful joint in the body, the hip provides stability and supports the range of motion necessary for daily activities such as walking, sitting and climbing stairs. When hip performance is compromised, prompt attention is essential.

Commonwealth Orthopaedics offers customized treatment for a wide variety of hip problems, from the non-operative management of osteoporosis and arthritis, to minimally invasive total hip replacements.

Hip osteoporosis is characterized by a decrease in bone density, resulting in weak bones that break easily. Osteoporosis affects more than half the U.S. population over age 50 and is most common in post-menopausal women. It has no symptoms, so people may not know they have it until they break a bone. In others, it is diagnosed with a bone density scan.

Hip fractures in patients with osteoporosis often heal poorly because bones are thin and porous. These injuries cause considerable pain, decreased quality of life, lost work days and disability. Up to 30% of patients suffering a hip fracture will require long-term nursing home care.

Although early detection and timely treatment of osteoporosis can substantially decrease the risk of future fractures, there is no cure for the disease. Patients whose hips are severely weakened by osteoporosis may be candidates for total joint replacement. Commonwealth offers the most advanced procedures including anterior total hip replacement, a minimally invasive, muscle-sparing technique that is far less traumatic for patients than traditional, open surgery.

Osteoarthritis is the most common type of hip arthritis. Also called wear-and-tear arthritis or degenerative joint disease, osteoarthritis is the progressive wearing away of the cartilage surrounding the joint. As the cartilage breaks down, bones start to rub together causing inflammation and discomfort.

Hip osteoarthritis can affect any age group, but it’s most typical in people over 50. The disease also tends to run in families. Traumatic injury or hip fractures can contribute to the condition as well. The most common symptoms are pain,
limited range of motion, stiffness and walking with a limp.

“For our patients with osteoarthritis, we start with conservative treatment such as anti-inflammatory medications, physical therapy to strengthen the muscles around the hip joint, cortisone injections and joint supplements,” says Young You, MD, a surgeon specializing in fracture care and total joint replacement. “If the pain persists, hip replacement surgery is performed. An overwhelming majority of our patients say that surgery alleviates their pain and improves their function and activity level.”

One of the most exciting new alternatives to traditional hip replacement is hip resurfacing. In this procedure, surgeons use a smaller implant and remove less bone. Advantages include quicker recovery, improved range of motion and faster return to an active lifestyle. In addition, advances in materials and technology greatly enhance the implant’s durability, making this a viable option for younger patients.

Hip osteonecrosis impairs blood supply to the bone. Without oxygen and nutrients, the bone eventually dies. Strength is greatly diminished, and the bone is susceptible to collapse. Most cases of hip osteonecrosis are associated with alcoholism or steroid use. Other risk factors include sickle cell disease, lupus, trauma and some genetic disorders. Symptoms are usually sudden and include an aching pain in the groin, difficulty walking or walking with a limp.

“Hip osteonecrosis tends to progress rapidly, so conservative treatments such as anti-inflammatory medications and physical therapy are not always successful,” says Charles Ubelhart, MD, who specializes in total joint replacement. “Surgical options in the early stages include hip decompression to relieve pressure in the femoral head, and bone grafting that moves healthy bone and blood vessels from the lower leg into the hip to restore blood flow.”

For more advanced cases in which the femoral head has collapsed, the most common surgical treatment is total hip replacement. As with osteoarthritis, bone-conserving hip resurfacing is a possible alternative for younger patients. Commonwealth physicians look at each patient individually and consider a number of factors before deciding which option is most suitable.

Charles R. Ubelhart, MD, earned a medical degree from the University of Kentucky College of Medicine in Lexington. He completed a general surgery internship and residency at University Hospital before moving to Arlington to do an orthopaedic surgery residency at National Orthopaedic and Rehabilitation Hospital. Dr. Ubelhart served as a surgeon in the United States Army Medical Corps at Walter Reed Army Medical Center during the Vietnam conflict. He was awarded the Army Commendation Medal for his outstanding service to our country during that time.

Young J. You, MD, received a BA from the College of Liberal Arts and Science and earned his medical degree from the Medical College of Seoul National University in Seoul, Korea. He then completed his surgical internship at the New Hanover Memorial Hospital in Wilmington, North Carolina, and one year of general surgery residency at the Lutheran Hospital in Baltimore, Maryland. Dr. You finished his formal medical training with an orthopaedic surgery residency at the National Orthopedic & Rehabilitation Hospital in Arlington, Virginia.

For full biographies and a complete directory of the physicians at Commonwealth Orthopaedics who perform these and other procedures, visit our website at www.c-o-r.com.
Always willing to lend a helping hand, James was digging out a friend’s car after February’s big snow when the vehicle began to roll toward him. He jumped on the hood to get out of the way, putting all his weight on one arm. “I felt excruciating pain and heard a very loud snap,” recalls the 51-year-old Annandale resident. “All my friends looked up and said, ‘What was that?’”

James had ruptured his distal biceps, the tendon attaching the biceps muscle to the elbow. The injury typically occurs when an unexpected straightening

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**Plenty of Elbow Room**

*Less Invasive Ruptured Biceps Tendon Repair Restores Function Faster*
force is applied to a flexed elbow and the tendon is torn from the bone. It is a violent and painful injury most commonly seen in middle-aged men, although every age group is vulnerable.

Prompt evaluation and treatment are crucial. “Ideally, a ruptured distal biceps tendon should be repaired within two to three weeks of the injury,” says Mark Evans, MD, a Commonwealth hand and upper extremity specialist. “After this time, the tendon and biceps muscle begin to scar and shorten. Other arm muscles can compensate for the injured tendon at first, but left unrepaired, in most cases, the arm will have a significant decrease in strength, especially in elbow flexion and palm rotation.”

Like most people who suffer a distal biceps rupture, James was initially unaware of what he’d done. He wore a sling for awhile, but the pain persisted. When he developed what he calls “Popeye arm”—a bulge in his upper arm created by the recoiled, shortened biceps muscle—he knew he needed to see an orthopedist.

James consulted Alexander Croog, MD, a hand and upper extremity specialist at Commonwealth Orthopaedics. Dr. Croog examined James, diagnosed the problem, and immediately scheduled distal biceps repair surgery. The procedure was performed several weeks later at Commonwealth’s Outpatient Surgery Center, and James was back home within hours.

“Advances in technology now allow surgeons to repair this tendon with sutures attached to biocompatible metallic devices—a less invasive approach that also results in a stronger repair,” Dr. Croog explains. “With these advances, patients can be rehabilitated after surgery much more quickly and get back to their usual activities sooner, although it still takes another few months to return to strenuous work or sports.”

James was able to go back to work at his engineering job two weeks after his surgery, and begin rehabilitation at Commonwealth a few weeks later. For five months, he worked with Commonwealth physical therapist Hugh McGee to strengthen his arm muscles and regain mobility and range of motion.

Although surgery is usually recommended for distal biceps ruptures, not all injuries need to be repaired. “It seems surprising, but in some cases, the elbow (Continued on page 12)
functions quite well without the biceps tendon,” says Sarah Pettrone, MD, a hand and upper extremity specialist. “For these patients, non-operative options such as pain medication and physical therapy may be appropriate. At Commonwealth, treatment decisions are made on an individual basis, based on a patient’s age, activity level and degree of injury.”

Within six months of his injury, James regained full range of motion and nearly 100% mobility in his arm. This fall, he will return to his volunteer position coaching middle schoolers in the Fairfax County Youth Basketball League. His experience at Commonwealth was so positive he recently sent his wife there for physical therapy after she sprained her ankle. “Everything—from the surgery to the rehabilitation to the follow-up care—was first rate,” he says. “They have a great team that gets to know you as a person and always puts the patient first.”

“Everything—from the surgery to the rehabilitation to the follow-up care—was first rate. They have a great team that gets to know you as a person and always puts the patient first.”
When Maureen began complaining of knee pain, her parents initially dismissed it as a sports injury. The McLean teenager is a passionate athlete who “played every sport under the sun” growing up, and was the only freshman to make it onto the Langley High School varsity volleyball team. Despite visits to the pediatrician and chiropractor, however, Maureen’s pain persisted.

It took the practiced eye of Langley associate athletic trainer Kara Chiocchio to notice she had also developed a limp. Kara and athletic trainer Nate Welever asked Commonwealth surgeon George Aguiar, MD, who is Langley’s team physician, to take a look. “I felt a hard bony prominence along the side of her right knee,” Dr. Aguiar says. “So I had her come into the office right away for an x-ray and referred her for an MRI.” Less than 48 hours later, he delivered the devastating diagnosis to her parents: Maureen had cancer.

The tumor was a chondroblastic osteosarcoma, an extremely aggressive form of bone cancer that can develop during the period of rapid growth that occurs in adolescence, as a teenager matures into an adult. Symptoms include pain, limping, possible bone fracture, and tenderness, swelling or redness at the tumor site. The condition is rare; Commonwealth physicians typically see just one case per year.

“Most of the young athletes who come to my office have the usual sprains and strains that resolve with simple treatment,” Dr. Aguiar says. “But if there is unexplained pain that persists or worsens despite rest and therapy, this is a red flag. From my experience, 8-12 weeks is a good threshold. If it’s not improving after that, have an imaging study to help with the diagnosis.”

Dr. Aguiar sent Maureen to an orthopaedic oncologist, who removed five inches of her right femur and replaced it with titanium. She endured months of grueling chemotherapy and difficult rehabilitation, which she embraced with her characteristic determination, strength and positive attitude. “All Maureen wanted to do was get back on that volleyball court,” says her mother, Carol. “Nothing was going to stop her.”

In June, exactly nine months after Dr. Aguiar’s diagnosis, Maureen received the news everyone was hoping to hear: her cancer was gone. With a clean bill of health, she’s once again playing her heart out for her beloved Langley Saxons.

Carol credits the expertise and diligence of the school’s athletic trainers for sensing a problem and calling in Dr. Aguiar. “As parents who have never needed it before, we feel so blessed to have this kind of resource,” she says. “Maureen’s cancer diagnosis rocked our world, but Dr. Aguiar and the athletic trainers have been so positive and supportive throughout the entire process. They’ve shown nothing but encouragement about our daughter’s recovery and what she can do. Without question, they saved Maureen’s life.”
A

dults and children share many of the same risks for bone fracture, but a child’s bones are also subject to a unique injury called a growth plate fracture.

Growth plates are the softer parts of a child's bones, where growth occurs. Located at each end of a bone, they regulate and determine the length and shape of the mature bone. They are the weakest link in a child’s developing skeleton – sometimes even weaker than surrounding ligaments and tendons. Because of the growth plate’s vulnerability to trauma, the same injury that might result in a relatively minor joint sprain for an adult can cause a fracture in a child.

Growth plate injuries typically occur when a child has a fall, a twisting injury or other traumatic event. Monkey bars are a common source of injury. Symptoms include sharp pain that doesn’t go away, swelling, and an inability to move or put weight on the affected area. “Most of these injuries are not severe and heal quickly because of the high metabolism and activity at the growth plate. But it’s essential to get proper treatment as soon as possible so the healing process takes place without complications,” explains Daniel Thompson, MD, a Commonwealth physician with a special interest in pediatric trauma. “These injuries have historically been and still are usually treated with casting. Some may require manipulation to align the bone before the cast is put on, and fewer still may require surgical placement of pins or screws to hold the bone in place.”

Growth plate injuries account for about 30% of pediatric orthopaedic injuries. “All children with open growth plates are at risk,” says Brantley Vitek, Jr., MD, who has a special interest in pediatric trauma at Commonwealth. “Because kids tend to land on their outstretched hands when they fall, growth plates in the fingers, wrists and forearm bones are most susceptible to fractures. These injuries also occur frequently in the lower bones of the leg: the tibia and fibula. Less often, they occur in the upper leg bone (femur) near the knee or hip.”

Growth plate injuries are classified based on the pattern of the fracture through the growth plate:

- **Type I fractures** break through the bone at the growth plate, separating it from the shaft.
- **Type II fractures**, the most common, crack through both the growth plate and the adjacent bone.
- **Type III fractures** cross through a portion of the growth plate and extend into the actual joint where movement normally occurs. They are more common in older children.
- **Type IV fractures** break through the adjacent bone and growth plate and extend into the joint. This type of fracture often requires surgery in order to avoid an eventual growth disturbance.
- **Type V fractures**, the rarest and most severe, occur due to a crushing injury to the growth plate from a compression force.

Diagnosis of growth plate fractures can be difficult. “One potential obstacle is the fact that, because it has not yet hardened into solid bone, the growth plate is invisible on an

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X-ray. So, we often have to deduce that the growth plate is the area of injury, based on the X-ray and clinical exam, and treat appropriately,” Dr. Thompson says.

Although a growth plate injury can seem terrifying to parents, the prognosis is excellent in most cases. Children usually heal with no long-term complications. "An injury to a growing bone at its growth plate does not mean that there will be a problem with the bone growing in the future," Dr. Vitek explains. "In fact, if treated appropriately, an extremely low percentage of growth plate injuries actually go on to develop any kind of growth disturbance, such as an angulated or shortened bone. But to be on the safe side, we recommend that the majority of growth plate injuries be followed months to years after the fracture has healed.”

For these reasons, it’s critical that growth plate injuries are evaluated by an orthopaedic surgeon experienced in treating pediatric trauma.

Brantley P. Vitek, MD earned a BA in Philosophy from the University of Virginia in Charlottesville before receiving his medical degree from the Medical College of Virginia in Richmond. He then went on to complete a general surgery internship at the University of Colorado followed by an orthopaedic surgery residency at the University of Texas Health Science Center in Houston.

Daniel E. Thompson, MD earned a BS in Biomechanical Engineering from Stanford University and then earned his medical degree from the University of Mississippi School of Medicine in Jackson. He completed both his general surgery internship and orthopaedic residency at Georgetown University Medical Center in Washington, DC.

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A Ride to Remember

It was supposed to be a pleasant, first-time horseback ride atop one of the world’s gentlest breeds. Instead, it was a terrifying gallop across Iceland’s frozen tundra through sleet and gale-force winds. When the horse finally threw her, Karen landed on the hardest surface imaginable: freezing volcanic rock.

The fall partially dislocated her right shoulder, but by the time she returned home to Alexandria, she thought it had healed. For the next eight years, Karen lived with recurring dislocations, progressive weakness and limited range of motion. Things got so bad she finally consulted Thomas Martinelli, MD, a shoulder, sports medicine and total joint replacement specialist at Commonwealth Orthopaedics. “He knew I wasn’t eager to have surgery, so he recommended physical therapy,” Karen recalls. “At first, I thought it was helping. But when a wave knocked me down during a family beach vacation and my shoulder popped out, I said, ‘That’s it! I’m having surgery.’”

In January, Dr. Martinelli performed minimally invasive arthroscopic surgery to repair Karen’s shoulder. She returned home the afternoon of her procedure and was back at work within a week.

“Current surgical treatment has, in most cases, changed from a big open procedure with considerable, permanent stiffness to an arthroscopic procedure where we repair the ligaments back to the bone using anchors, or tighten the ligaments with plication or sutures,” Dr. Martinelli explains. “These more recent techniques shorten the operative time, actually allow for better visualization of the anatomy, and generally restore function faster with better range of motion following rehabilitation.”

Dr. Martinelli stresses that all techniques still rely on proper healing of tissue, so patient compliance with rehab and a period of reduced activity are very important for a successful outcome.

The shoulder is the most frequently dislocated joint in the body, accounting for 45% of all dislocations. There are two main causes: trauma, usually from a collision or contact sport, and ligament laxity. A shoulder dislocation occurs when the upper arm bone (humerus) loses contact with the socket of the shoulder blade (scapula). It should not be confused with a shoulder separation, which is an injury to the joint between the scapula and the collarbone (clavicle).

The vast majority of shoulder dislocations are anterior, with the top of the humerus sitting in front of the scapula. In less than 5% of cases, the top of the humerus is behind the scapula – a posterior dislocation. The shoulder can come all the way out of the socket, and must be manually reduced in the operating room, or partially dislocate and snap back in place on its own. Partial dislocations are likely to recur. All age groups are susceptible to shoulder dislocation, but the injury is most common among young athletes.

“At Commonwealth, we use X-rays and MRIs to evaluate each patient’s injury and determine the proper treatment,” says Gordon Avery, MD, who specializes in sports medicine, total joint replacement and shoulder surgery. “For the first-time dislocator, we usually prescribe immobility in a sling, along with physical therapy. For a recurrent dislocator, we generally recommend surgery. Most of these procedures are performed on an outpatient basis, but if the MRI shows structural damage in the joint, traditional open surgery is sometimes preferable.”

Following her procedure, Karen spent four weeks with her arm immobilized in a sling, and then began several months of physical therapy to restore strength and flexibility. Now fully recovered, she is busy keeping up with her 3-year-old daughter, Rayyan, and traveling for her job in international development. Her arm is much stronger and more limber than it was before her surgery, and she’s confident it will improve to the point where she will forget about it completely.

“My Commonwealth experience was overwhelmingly positive and Dr. Martinelli did an amazing job,” she says. “I had minimal post-operative pain, my recovery was excellent, and the incisions are so tiny and have healed so well you can barely see them anymore. In the end, my fears were groundless; surgery was definitely worth it. I have my quality of life back.”
Karen enjoys lifting daughter, Rayyan, something she couldn’t do before she had arthroscopic surgery to repair her shoulder.

Gordon L. Avery, MD, earned his undergraduate degree from Ithaca College in Ithaca, New York, before going on to receive his medical degree from The University of New York at Buffalo, College of Medicine. He then moved to Washington, DC, and completed his internship and orthopaedic residency at Georgetown University Medical Center where he concluded his formal medical training as Chief Resident.

Thomas A. Martinelli, MD, graduated cum laude with a BS in Biology from Rensselaer in Troy, New York. Dr. Martinelli earned his medical degree from Georgetown University School of Medicine in Washington, DC, attending on a Navy HPSP Scholarship. He then completed a six year residency in orthopaedic surgery at Georgetown University Medical Center.

For full biographies and a complete directory of the physicians at Commonwealth Orthopaedics who perform these and other procedures, visit our website at www.c-o-r.com.
The knee is the largest joint in the body and knee problems are the major reason patients visit orthopaedic surgeons. One of the most common complaints is osteoarthritis—the breakdown and eventual loss of cartilage that cushions the knee joint. Also known as degenerative arthritis, osteoarthritis can lead to knee pain, swelling and stiffness.

“There are several causes of osteoarthritis, including previous trauma or underlying health issues such as obesity or congenital abnormalities, but the most common cause by far is age-related wear and tear,” says John McConnell, MD, a knee and sports medicine specialist at Commonwealth Orthopaedics. “All of us fight gravity on a regular basis, and with every step we take there’s some wear and tear in the joint. The more years and the more steps we take, the greater the potential damage can be.”

If osteoarthritis is diagnosed in its early stages, low impact activities and other non-operative treatments can delay or eliminate the need for surgery. In some cases, activity modification may be all a middle-aged patient needs. “For those who are sedentary, moderate physical activity can ease joint pain and improve flexibility and function,” says Commonwealth knee specialist Charles Lefton, MD. “For more active individuals, switching from high-impact sports such as running and tennis that twist and turn the knee, to low-impact activities such as swimming, cycling or walking may bring relief.”

Other conservative treatment options include:

- Anti-inflammatory medications
- Physical therapy
- Steroid injections
- Viscosupplementation – injection of synthetic joint fluid to restore cushioning and lubrication of the knee joint
- Arthroscopic debridement – a minimally invasive procedure to clean excess synovial fluid out of the knee joint

For patients who fail to respond to conservative therapies, total knee replacement surgery may be the answer. “Advancements in approach and materials mean this is a far less invasive or traumatic procedure than it used to be,” says Edward Lane, MD, who has been involved in the research, development and practice of knee surgery since watching his father Herbert Lane, Jr., MD, perform the region’s first total knee replacement 40 years ago. “Superior materials and better design have strengthened weight-bearing surfaces and increased implant longevity, making this a viable option for younger adults in their 40s and 50s. And surgical approaches have improved to the point where patients are up and walking almost immediately.”

One of the most exciting new procedures is muscle-sparing total knee replacement. This innovative technique combines the latest minimally invasive methods with a surgical approach that leaves key muscles and tendons intact. Instead of cutting the quadriceps tendon, surgeons make a 3-5 inch incision on the knee and split or dissect under a single quadriceps muscle. Because the incision is very small and no major tendons or muscles are cut, recovery is much faster and less painful.

With the advent of smaller instruments, computer-assisted navigation, improved retractors and better pain protocols, muscle-sparing knee replacement has taken off in recent years, and Commonwealth is on the cutting-edge of performing this technique.

Even with such advancements, Dr. Lane stresses that total knee replacement is not for everyone. “At Commonwealth, we carefully evaluate each patient to determine whether surgery is appropriate,” he says. “We consider age, activity demands and other factors. Whenever possible, we opt for conservative therapy. But the more severe the osteoarthritis, and the longer it is left untreated, the greater the chance a knee replacement will be necessary.”
H. Edward Lane, III, MD, earned his medical degree from Georgetown University School of Medicine in Washington, DC. He then completed his internship and orthopaedic surgery residency at Georgetown University Medical Center.

Charles S. Lefton, MD, earned his undergraduate degree from the University of Michigan and received his medical degree from Wayne State University School of Medicine in Detroit. Upon completion of his internship and residency, Dr. Lefton served as an orthopaedic surgeon in the United States Air Force for two years at Kessler Air Force Base Regional Medical Center in Biloxi, Mississippi.

John P. McConnell, MD, earned a BS in Chemistry from Georgetown University in Washington, DC. Dr. McConnell received his medical degree from Georgetown University Medical School. He then completed a general surgery internship at Northshore University Hospital in Long Island, New York, and returned to Washington to do an orthopaedic surgery residency at Georgetown University Medical Center.

For full biographies and a complete directory of the physicians at Commonwealth Orthopaedics who perform these and other procedures, visit our website at www.c-o-r.com.

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If you have osteoarthritis (OA) of the knee, and pain relievers aren’t helping, there is a non-surgical option that may help keep you moving and get your knees back in the game. ORTHOVISC® provides up to 6 months of knee pain relief with just three injections. Made from ultra-pure natural hyaluronan, which is found in healthy joints, ORTHOVISC® acts to cushion, protect and lubricate your knee.

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Edna, (center) and her ten family members have been receiving care from Commonwealth Orthopaedics for the past 13 years.

When Edna first came to Commonwealth Orthopaedics for osteoarthritis treatment back in 1996, she started a family tradition. Over the next 13 years, ten other family members—including her children, grandchildren, and even her great grandchildren — turned to Commonwealth to treat a variety of orthopaedic conditions.

Son Bob had spine surgery, and his wife Lee received physical therapy for a torn rotator cuff. Daughter Louise and granddaughter’s husband, Eric, had shoulder surgery. Granddaughter Kristen had hand surgery. Another granddaughter, Cindi, had pain management injections, and Cindi’s husband Paul had ACL reconstruction. Cindi and Paul’s 22-year-old daughter Kristen was seen for a spine injury and 19-year-old daughter Kathleen had spine X-rays. Their son Ryan, 17, had ankle surgery.

2009 marked Commonwealth’s 15th anniversary as Northern Virginia’s premier orthopaedics and rehabilitation provider. From just a handful of surgeons, two offices, and a dream, Commonwealth has grown into a full service, nationally recognized musculoskeletal delivery system. Our 10 office locations, 38 specialists, six physical therapy centers, and two outpatient surgery facilities offer the full range of sub-specialty orthopaedic care for families such as Edna’s throughout the region.

Expanding To Serve The Community

Our Fair Oaks office is now open! Located on the campus of Inova Fair Oaks Hospital, in the medical office building at 3620 Joseph Siewick Drive, our newest office is home to eight orthopaedic surgeons and five physician assistants.

Expediting Care For Patients

The Commonwealth team has grown to include 18 physician assistants (PAs) who help lessen the load on busy surgeons and expedite care for our patients. PAs are medically licensed to conduct exams, diagnose and treat orthopaedic conditions, perform tests, prescribe medications, and refer patients to Commonwealth’s specialists, if necessary. They work at a majority of our office locations, providing patients with faster access, prompt response, and better continuity of care.

Leading The Way With Innovative Therapies

Commonwealth now offers platelet-rich plasma (PRP), an exciting new therapy that uses the body’s own platelets to enhance healing and accelerate recovery. Platelets are extracted from a patient’s blood and injected directly into damaged tissue. The technique is a non-
surgical alternative for acute or chronic musculoskeletal injuries, degenerative disorders, and joint pain.

**Keeping Soccer Players Healthy**

Commonwealth teamed up with Fairfax Family Practice and Fairfax County Public Schools to sponsor a free injury-prevention workshop for soccer coaches from the Southwestern Youth Association. Specialists shared their expertise on how to prevent ACL injuries, recognize and prevent concussions, and treat overuse injuries.

**Educating Health Professionals**

More than 60 certified athletic trainers (ATCs) and team physicians from local high schools attended the 4th Annual ATC Workshop, sponsored by Commonwealth Orthopaedics. This free event connects ATCs with Commonwealth physicians to discuss prevention and sideline management of sports injuries, and improve overall care for student athletes.

**Supporting Local Sports Teams**

Our sports medicine specialists serve as team physicians for 18 area high schools, as well as youth leagues and collegiate and professional teams, including:

- The Washington Redskins
- George Mason University Patriots
- DC United Soccer

**Giving The Gift Of Life**

In January, Commonwealth partnered with the American Red Cross to host a community blood drive in our Herndon Outpatient Surgery Center. More than 40 people—many of them Commonwealth employees—turned out to donate and help build up the local blood supply after the holidays.

**Patient Satisfaction**

Our patient satisfaction is consistently high and 2009 was no exception. More than 5,500 patients were surveyed regarding their experiences at Commonwealth Orthopaedics.

- **91%** rated their overall office visit as excellent or very good.
- **98%** rated their overall care at our outpatient surgery centers as excellent or very good.
- **99.8%** of physical therapy patients surveyed rated their overall quality of care as excellent.

**Pain Management**

Commonwealth Orthopaedics’ innovative Pain Management Program focuses on interventional care of chronic conditions to ease pain and help patients regain function and quality of life. More than 3,200 appointments were made for the program’s services.
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<td>ALEXANDRIA</td>
<td>703-810-5209</td>
<td>703-810-5414</td>
<td>2805 Duke Street, Alexandria, VA 22314</td>
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<td>Ben W. Kittredge, IV, MD, Thomas A. Martinelli, M.D., Daniel E. Thompson, M.D., Charles R. Ubelhart, M.D., Young J. You, M.D.</td>
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<td>FAIR OAKS</td>
<td>703-810-5223</td>
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<td>RESTON</td>
<td>703-810-5202</td>
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<td>8320 Old Courthouse Road, Suite 100, Vienna, VA 22182</td>
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