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University Orthopaedic Associates



Life In Motion

Issue 1 / Winter 2017



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Greetings from UOA

University Orthopaedic Associates



We are excited to bring you our inaugural issue of the UOA “Life in Motion” magazine featuring articles from our highly skilled and nationally recognized orthopaedic surgeons. As New Jersey’s leading orthopaedic practice we have been treating families for their musculoskeletal needs for more than 40 years. Dedicated to providing the most current, highest quality, personalized healthcare services available, it is a privilege to offer information that can help you understand a variety of common orthopaedic ailments and to share some of the cutting edge procedures that are pioneered and utilized by our physicians and staff.

Since our inception in 1972, our practice has grown, but we continue to be committed to the pursuit of excellence in orthopaedic treatment, medical education and training, clinical and bench research, and the promotion of community health. Each of our physicians is fellowship trained, board certified or board eligible, and each strives to provide the highest level of patient care based on the best available medical evidence. Providing care for pediatric through adult ages, our physicians have subspecialty training in sports medicine, upper extremity, spine, joint replacement, and trauma. Our patients experience the latest technology and concepts available coupled with compassionate care. With in-house MRI, digital x-ray, musculoskeletal ultrasound, DXA scan, on-site surgi center, physical and hand therapy and our Sports Performance and Wellness programs, our patients experience a continuum of care that is second to none in the state of New Jersey.

With academic appointments in the Department of Orthopaedic Surgery at Rutgers, Robert Wood Johnson Medical School, our physicians train future orthopaedic surgeons. This educational experience is a two-way street with residents gaining vital experience through teaching and physician mentoring and our physicians benefit as they must stay cutting edge with the newest orthopaedic procedures and current research. Ultimately, the patient is the benefactor of this educational component. From the clinical setting to the sidelines, you will find several of our physicians at local high schools and collegiate sporting events as we provide care to athletes from Rutgers, Princeton and Rider Universities as well as US Rowing.

UOA is continually involved with new research and with educational programming for physicians, physical therapists, athletic trainers and the community. To learn more about current research or upcoming educational opportunities please visit our website at www.uoanlj.com. The site also offers an array of information that includes general office information, detailed information about physician training, educational resources to understand your medical condition, the latest UOA news, announcements and an interactive patient portal to update information or request patient information. UOA is also active with social media, including Facebook, Twitter, YouTube and UStream.TV.

The physicians and staff at UOA would like to thank the generous sponsors for their support of this publication. We would also like to thank our patients, referring physicians, therapists and athletic trainers for the opportunity that you have given us to serve you and we look forward to exceeding your orthopaedic needs each and every day.

— Darleen Caccavale, CEO

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Giving Back to Community Comes Naturally for UOA Physician

As a member of NJ Task Force 1, (NJTF1) one of FEMA's National Urban Search and Rescue Response Teams, Dr. Mark Butler is an integral part of a highly trained and skilled team of emergency disaster specialists. Whether it's a swift water rescue, a victim search, removal from a flooded or collapsed building, members of NJTF1 stand ready to swing into action. Coordinated by the NJ State Police, the team of specialists is made up of members from all 21 counties in NJ.



Butler has been a volunteer member of NJTF1 for the past 11 years where he serves as a medical specialist on one of the three NJTF1 teams. Each medical team is composed of 4 paramedics, 1 nurse and a physician. The medical specialists work with other specialists in Communication, Hazmat, Canine Search and Rescue, Rescue, Structural, Technical Search and Information specialists as a highly trained and integrated unit. "As part of the FEMA team, we can be deployed for 2 weeks anywhere in the world at a moment's notice. We do a lot of our training at Lakehurst Naval Air Station so our equipment is packed and ready to be loaded onto a transport plane for immediate response if an emergency calls" notes Butler. Whether it's a collapsed building, a hurricane, earthquake or other national disaster, NJTF1 stands ready to answer the call.

FEMA teams have gone to Japan for the nuclear meltdown, Christchurch, New Zealand and Haiti for Earthquakes, New Orleans for Katrina and NJTF1 played a pivotal role in the Hurricane Sandy aftermath. "My team was initially deployed to Atlantic City where we helped to rescue people who decided not to evacuate the city. The second day, we were moved up to Ortle Beach where we searched thousands of homes for trapped or injured people, providing assistance for those in need" noted Butler.

"Navigating around the area after Sandy was extremely challenging. There weren't any road signs to use for directions. Landmarks were gone, and we had to rely on maps on our cell phones. Search and rescue works with GPS and searches with a grid system, but during Sandy, it was tough. Our cell phones lost power. Communications and directions were challenging. Now we travel with a big printer that can print out a big map from a current satellite picture to make navigation and rescue easier."

"I've been on flooding rescues 3 different times in Bound Brook when the flood water was over the street signs and we were rescuing people who couldn't get out of their homes. We drive around in a small boat called a zodiac, powered by a 20 hp engine, or an ARGO which is a six wheeled overland boat and we look for people who need help. We ferry people to lilly pods or staging areas after they are plucked from a flooded home. As a swift water rescuer and instructor, I realize that these situations can be very dangerous. Rescues aren't always as easy as they look. People have died trying to save others. People often don't realize how dangerous flood water can really be."

To prepare for emergencies, all members of NJTF1 undergo extensive training. "We train 8-9 days a year. We must maintain current training for chemical and biologic as well as radiation rescues. We must certify on a vertical ropes course where we drop 30 feet into a 25 inch hole and we have to find an injured victim. We do a lot of search and rescue drills. Our training may utilize a helicopter, ATV or boat. Our swift water training is never in a calm pond and there is never a day where our training is cancelled due to bad weather. We undergo training for virtually every imaginable catastrophe."

When asked about how he got involved with NJTF1, Butler remarked "that I was invited by a task force leader who happened to be a fireman and chief of the New Brunswick fire department. I was a Division 1 swimmer, not afraid of heights, confined spaces and I love adventure. All of the members of NJTF1 are such great people, highly trained, dedicated, and I really enjoy working with such amazing people. It is a great way to give back to the community!"



Mark S. Butler is a board certified orthopaedic surgeon and he has completed fellowship training at Maryland Institute for Emergency Medical Services specializing in traumatology and foot and ankle surgery. Dr. Butler also serves as a Clinical Associate Professor in the Department of Orthopaedic Surgery at Rutgers, Robert Wood Johnson Medical School. He has been voted a top doc by his patients. To learn more about Dr. Butler, or to schedule an appointment please visit www.uoanj.com.

Surgical Pain Relief

BY MICHAEL PICONE, MD • MEDICAL DIRECTOR, ANESTHESIOLOGIST • ANESTHESIA CONSULTANTS OF NEW JERSEY

Anesthesia is an important consideration for patients undergoing surgery. At University Orthopaedic Associates, where the physicians have selected Anesthesia Consultants of New Jersey to provide anesthesia services, we provide the safest most effective medications and techniques.

Our care begins with a review of your medical record in advance of your surgery. We may ask your surgeon to order some additional tests to insure you have the best anesthesia results. We then call you the night before surgery to answer any questions and clarify your understanding of your anesthesia preparation. We meet with you prior to surgery to review the anesthesia plan and answer any additional questions. Our care continues during surgery and throughout the post-operative period for optimum pain relief to assist you in your recovery.

There are several distinctions in post-surgical pain relief. Traditional pain relief after surgery typically uses only narcotic medications like codeine or morphine. These medications can cause breathing difficulty, nausea, vomiting, sedation, constipation, urinary retention and other side effects. Narcotic medications affect the whole body, and may cause grogginess and sleepiness that can slow recovery. While for certain procedures and for certain patients this type of pain relief may be necessary, there is the alternative of local anesthetics.

Unlike narcotics, local anesthetics numb only a targeted area such as the operative limb, and not the entire body. Because of this, there is a lower risk of unpleasant side effects. For years, local anesthetics have proven effective for many surgeries and dental procedures. However, the duration of a local anesthetic is measured in hours, so it has limited use for certain post-operative pain relief.

You may be a candidate for a pain relief system that is unique because it provides the benefits of local anesthetics for days instead of hours. This type of pain relief may be better than narcotic medication alone and the need for supplemental narcotic medication may be minimized or eliminated entirely.

Surgical pain relief is one component of your anesthesia care and it is our mission to provide the best care plan to meet your surgical needs.

Anesthesia Consultants of New Jersey is the premiere anesthesia group in central New Jersey. We provide patient-focused anesthesia care at a number of hospitals, ambulatory surgery centers and physician offices throughout central New Jersey, including UCAS. Our success in patient care comes from our professional care designed for maximum safety, effectiveness and minimal side effects. Anesthesia is an integral component of outpatient surgery. Facilities and surgeons should expect the best from their anesthesia consultants. Anesthesia Consultants of New Jersey is continually looking to partner with other exceptional physicians and facilities. Please consider us for your future anesthesia needs. Contact us at: <http://www.anesthesiaconsultantsnj.com/> or call 732-271-1400.

Chronic Pain and Management Strategies

BY DR. HARRIS SHAIKH, MD • INTERVENTIONAL PAIN MANAGEMENT PHYSICIAN • NOVA SPINE & PAIN CENTERS

Pain is a natural way for the human body to protect itself from injury and harm. It is what keeps someone from touching something that is too hot or from further injuring a body part that has been injured. However, in many cases, this natural defense mechanism stops working in a protective way. Then, pain persists when it is no longer serving any purpose. This is when it becomes known as chronic pain.

If this is your reality, you are not alone. Over 100 million Americans suffer from chronic pain. It affects more Americans than diabetes, cancer and heart disease combined. Twenty percent of American adults report that pain or physical discomfort disrupts their sleep a few nights a week or more. Fortunately, there is hope in the form of many available treatment options.

The best treatment for pain is removing the underlying cause of it, but unfortunately that is not always possible. Some patients are not surgical candidates or have had surgery without success, while others have an illness causing incurable pain. In these cases, the pain has to be managed so that patients can continue to function optimally and suffer minimally. To help achieve

these goals, patients can undergo a series of treatments. These range from physical therapy to various medications as well as nerve blocks and other injections, with an emphasis on finding the least invasive and safest treatment regimen possible.

At Nova Spine & Pain Centers patients are offered minimally invasive interventional techniques in addition to medication management to help with chronic pain. Treatments are individualized and the emphasis is placed on treating the whole patient and not just the disease. Patients are approached using the bio-psycho-social model. This places an emphasis on finding pain management strategies that incorporate diet and exercise in addition to evaluating coping strategies in dealing with pain. The goal is to minimize patients' reliance on pain medications, and help find strategies to return them to an active life without the need for those medications.

If you or someone you know is suffering from chronic pain, contact Nova Spine & Pain Centers today. Visit us online at www.Nova-Pain.com or call us at (732) 659-9900.

Find relief today for a healthy tomorrow!

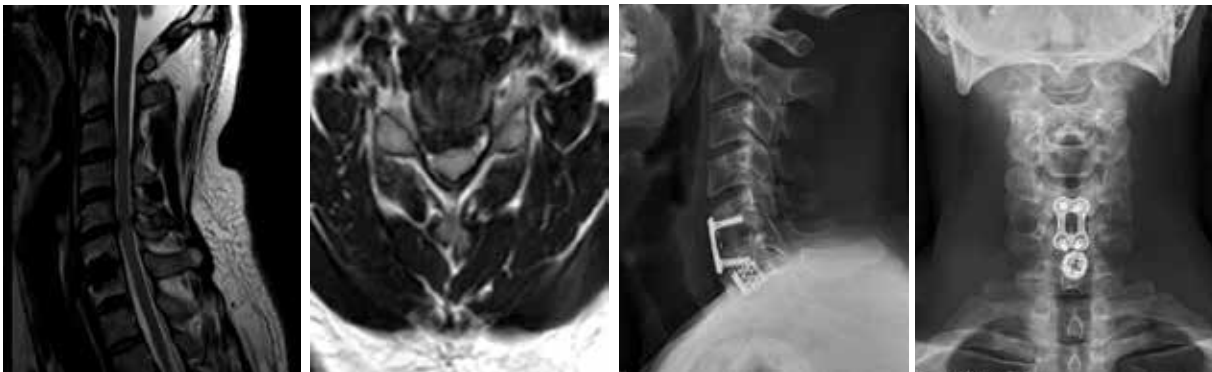
Case Presentations



PRESENTED BY
GINO CHIAPPETTA, MD AND MATTHEW MCDONNELL, MD
SPINE SERVICE

■ CASE 1

A very active 38-year-old patient presents with a history of cervical pain, numbness and burning into his arms with activity. He has a history of two prior Anterior Cervical Disc Fusions (ACDF). The first occurred in 2007 of C6/C7 which resulted from a ski accident. In 2010 the patient complained of neck pain and radiating numbness from C5/C6 due to adjacent segment disease. Studies revealed a herniated nucleus pulposus (HNP) with radiculopathy and an ACDF was performed to stabilize the segment. The patient did well in post op.



In 2013 the patient presents with numbness and weakness in both arms with lifting. He also experiences burning in both arms with neck extension. Studies reveal a HNP and severe stenosis of C3/4 two levels above the normal C5/6 disc.



The patient was given NSAIDs, oral pain medication and sent for physical therapy. Symptoms subsequently progressed over the next couple of months.

OPTIONS:

- a) Another ACDF (1 vs 2 levels?)
- b) Cervical Disc Replacement (CDR)
- c) Posterior Laminectomy with or without a fusion
- d) Laminoplasty

CONSIDERATIONS:

The patient is young and very active. Range of motion of the neck is a considerable priority for the patient. Previous ACDF has resulted in adjacent disc issues and has already compromised some motion. There is significant concern with another ACDF. What will happen to the adjacent level? Should a two level fusion be done proactively to prevent an additional surgery to stabilize the adjacent segment? This would have a significant impact on range of motion. ACDF could ultimately be performed if the CDR failed.

RESULTS:

Patient opted for complete discectomy with insertion of CDR. The patient experienced a fast recovery and immediate resolution of symptoms. At 24 months post op and the patient remains very active, running, engaging in weight training and without pain. Flexion and extension views of his spine demonstrate that he has maintained excellent motion of his cervical spine.



CDR vs ACDF:

ACDF is a very successful procedure that has been utilized for over 50 years. Success rates for relief of pain and symptoms are in the 90% range. Concerns do exist over adjacent segment disease which can occur after ACDF surgery which changes normal biomechanics of the cervical spine. CDR, though relatively new in the US, has been studied globally for 20 years with outcomes equal or better than ACDF. There have been multiple clinical studies which show ACDF has up to a 5x greater re-operation rate than CDR. CDR shows 3 x less radiographic evidence of adjacent level degeneration. CDR has been shown to have greater improvement in disability, quicker return to work, maintenance of motion through 2 years and disability scores (NDI) that are significantly better than ACDF.

CDR is a viable option for patients who are experiencing 1-2 level cervical disc disease with chronic pain, weakness and radiculopathy.

■ CASE 2

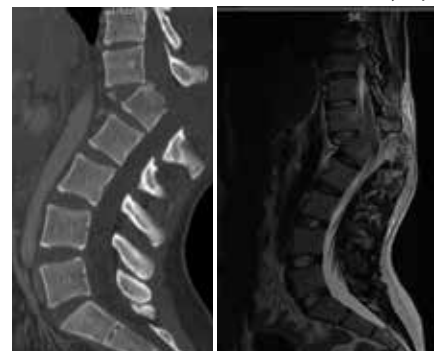
A 19-year-old female suffered a fracture/ dislocation of her thoracolumbar spine at the level of T12/L1 as a result of a motor vehicle accident. The injury affected her lower extremity function as her spinal cord was impacted



The patient was quickly taken into surgery and her fracture/dislocation was reduced and appropriately stabilized. The patient regained full motor and sensory function and is able to walk. The critical parts of her treatment were a rapid response team in the field, surgery performed within a few hours from her injury and an anatomic reduction of her fracture. The vast majority of patients with her type of injury would be completely paralyzed with no function below T12.

Tough cases like this are exceptional just like the expertise of our

spine surgeons. The initial care that you may receive for your spinal injury can make the difference between walking and living a normal life again, rather than ending up confined to a wheelchair.



Achilles Tendon Ruptures



BY KENNETH G. SWAN, JR., M.D.

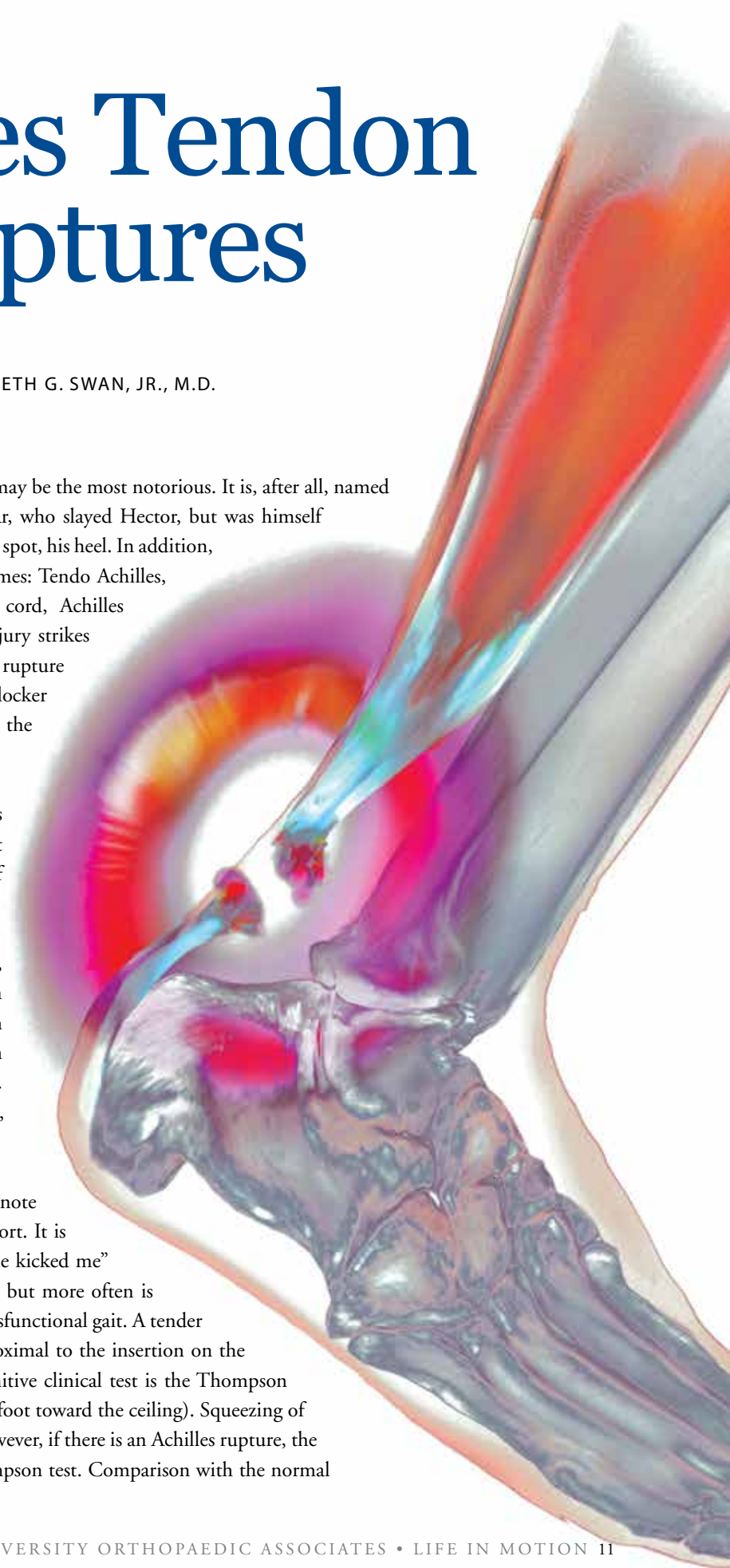



Of all the body's tendons, the Achilles may be the most notorious. It is, after all, named after the Greek hero of the Trojan War, who slayed Hector, but was himself killed by an arrow to his only vulnerable spot, his heel. In addition, what other tendon carries so many names: Tendo Achilles, tendo calcaneus, Triceps surae, heel cord, Achilles tendon? Finally, what other tendon injury strikes fear into an athlete the way an Achilles rupture does? Word on the street (and in the locker room) is that the surgery is tough, and the recovery even tougher, and long!

This article intends to dispel some of the myths surrounding Achilles tendon ruptures as well as to report on the renewed trend toward non-operative treatment of these injuries.

Achilles injuries classically occur in a weekend warrior, in their 3rd or 4th decade. A non-contact, deceleration action during racket sports or basketball is a common mechanism, though older or younger patients can rupture their Achilles during less intense activities. Other risk factors include obesity, rheumatologic disease, neuropathy and recent steroid or fluoroquinolone use.

An athlete who suffers an Achilles rupture will often note they heard/felt a pop in the back of their leg during sport. It is not uncommon for a patient to say "I thought someone kicked me" or "I thought I got shot". The pain can be significant, but more often is well tolerated. Patients can often walk, though with a dysfunctional gait. A tender defect can usually be palpated, typically about 3cm proximal to the insertion on the calcaneus. Ecchymosis and swelling develop. The definitive clinical test is the Thompson test. The patient is placed prone, with knee flexed (and foot toward the ceiling). Squeezing of the calf should produce plantar flexion of the ankle. However, if there is an Achilles rupture, the ankle will not passively plantar flex, an abnormal Thompson test. Comparison with the normal side is helpful.





To the surprise of many, today non-surgical treatment is a very good option for most patients with a ruptured Achilles tendon.

Plain radiographs are part of the work up to ensure there is not a calcaneal avulsion fracture, which is rare, but may change the management and it's urgency. MRI is not mandatory, but will confirm the presence of a tear if the diagnosis is in question.

Patients are initially placed in a below-knee posterior splint, ideally in the resting position of gravity assisted plantar flexion. Crutches are necessary. Follow-up with an orthopaedic surgeon within a week is appropriate, so as to best initiate the treatment protocol.

Treatment recommendations have changed over the years, and to the surprise of many, today non-surgical treatment is a very good option for most patients with a ruptured Achilles tendon. In the past, surgery was usually recommended, so as to give the tendon the best chance to heal and not re-tear. Non-operative treatment, typically in the form of a cast for a couple of months, was an option, but carried a high re-tear rate (10-20%). The benefit of surgery, then, was to decrease the re-tear rate, but came with a cost---the risk of wound complications. These complications are rare (1-2%), but when they occur, can be devastating. Indeed, Achilles the Warrior may have succumbed to complications of a heel wound!

Over the past decade there has been a renewed interest in non-operative treatment of Achilles ruptures, with an emphasis

on early range of motion and early weight bearing as part of the non-operative protocol. The thinking here is that the paratenon, which encapsulates the Achilles tendon (but not so in some other tendons, such as the patellar tendon or rotator cuff tendons), keeps the hematoma and growth factors and torn tendon edges together as a healing unit. Early range of motion allows the tendon fibrils to coalesce in a more linear and organized orientation, rather than a disorganized scarball one could expect from long-term casting. Early weight-bearing likely stimulates the healing response as well.

Several well-designed, Level I, randomized, controlled trials have studied outcomes of non-operative treatment with early range of motion and/or early weight bearing, as compared to surgical repair with a similar post-operative protocol. The healing rates are excellent and functional outcomes appear equal for both surgical and non-surgical treatment options. Re-rupture rates appear to be equivalent (0-5%), making non-surgical treatment a safe and excellent option.

Patients are often surprised to hear that an Achilles rupture can be treated non-operatively. They may be under the impression that the tendon edges will never "come together" to heal. Their concerns are understood. And indeed, some younger, high-level athletes may still be considered for surgical treatment. However, with proper early treatment, the majority of weekend warriors and ordinary citizens are candidates for

Traveling on the Road to Recovery at

The Center for Rehabilitation and Sports Excellence



BY JESSICA SPIVEY AND LYNN VANOST

A torn ACL, a broken bone, an arthritic condition, neck pain or a surgical procedure can cause a good bit of angst and impact daily function. Some injured patients may worry about their future and fear that they won't make it back to the same level of pre-injury function. The road to recovery starts at UOA with care from top orthopaedic surgeons, supplemented by a highly skilled and innovative physical therapy staff who work together to provide the highest level of individualized care.

At UOA, patients benefit from comprehensive physical therapy performed on site, which is closely monitored by our physicians. Our physical therapists treat a variety of issues which often include sports injuries, post-operative orthopaedic procedures, as well as non-operative orthopaedic ailments, fractures, arthritis, sprains and strains, back and neck pain and spinal conditions. We have facilities located in Somerset and Wall, which provide a wide array of therapeutic modalities along with state-of-the-art equipment, to safely and effectively improve range of motion, strength and promote cardiovascular health. After a thorough evaluation, a UOA physical therapist will design and assist patients with their therapy program as well as a home program.

Our rehabilitation and sports excellence centers are exceptional in providing expert care. We aim to work efficiently and effectively with the physicians to help our patients reach higher levels of function by providing the latest in evidence based interactions. Our centers are unique in their ability to collaborate with our physicians. Being onsite allows for regular communication with our physicians to ensure that

therapist/physician treatment goals are being met. This allows the physician to be intimately involved in your care as well as being able to trouble-shoot a specific issue.

Our physical therapy staff works closely with physicians, nurses, athletic trainers and our certified strength and conditioning coach to assist you in reaching your rehabilitation goals. We have an on-site Sports Performance Specialist, Blake Swan, CSCS, TSAC-F, FMSC, CPT. Blake is not only available to continue your exercise program after physical therapy is formally completed (our "Bridge the Gap" program), but he is also available for personal and group sports training, nutritional counseling and weight loss programming.

On the third floor of our Somerset facility is the University Center for Ambulatory Surgery (UCAS). A patient receiving surgery at UCAS has the opportunity to see a physical therapist for pre-operative teaching which can assist with post-operative recovery. They may also see a physical therapist post-operatively, in conjunction with the UCAS staff to assure a safe discharge to home.

The road to recovery is made much easier under the guidance of one of our highly skilled physical therapists. We are here to help you return to your highest level of post injury function. Our center is open five days a week with early morning hours for your convenience. We welcome you to come and visit our facility and we will answer any questions that you may have about our physical therapy services. We look forward to assisting you on your road to recovery.

Mobi-C[®] Cervical Disc – An Alternative to Neck Fusion Surgery



Do you suffer from arm pain such as numbness or weakness with or without neck pain? You may be a candidate for Mobi-C[®].

The Mobi-C (Mobi-C Cervical Disc) has been designed to restore disc height, allow for a natural range of motion, and may lessen your neck and/or arm pain.

Mobi-C Cervical Disc Replacement is an alternative to neck fusion surgery.

In a surgery with the Mobi-C, the unhealthy disc is removed, but instead of a bone spacer or plastic implant along with a plate and screws, a Mobi-C is implanted into the disc space.

Where a fusion procedure is intended to eliminate motion at the surgery levels, the goal of a surgery with Mobi-C is to allow motion at those levels.

For a complete description of the risks and benefits associated with cervical spine surgery with Mobi-C, visit www.cervicaldisc.com/clinical-results

Surgery with Mobi-C:

- Will replace your worn out disc(s)
- May help keep neck movement
- May lessen your neck and /or arm pain and any arm tingling

Potential Mobi-C post-operative risks:

- Pain in the neck, arm, back or shoulder
- The feeling of pins and needles in arms
- Difficulty swallowing
- Headache

Talk to your doctor about the risks and benefits of surgery using Mobi-C to treat your condition.

Recovery:

How fast you get better depends on your age, your general health, and the reason for surgery. Your doctor may recommend exercise with the help of a physical therapist. As, with any surgery, it's extremely important to follow your doctor's directions. Some examples to follow include:

- Sit, stand, and walk after surgery
- Wear a neck collar to lessen neck movement
- Take medicine for pain or sickness of the stomach
- Put a new clean, bandage on the cut

Your doctor's directions may be different.

To find out if you are a candidate or to find a trained surgeon in your area, please visit www.mobi-c.com



Fusion



Mobi-C Cervical Disc

Hand Surgery without Anesthesia?

Breakthrough Hand Surgery Now Being Offered at UOA

A breakthrough surgery is now being offered at University Orthopaedic Associates (UOA) and patients who have undergone the procedure are extremely pleased with the results.



BY CHRISTOPHER DOUMAS, MD

Hand surgery has traditionally been performed under anesthesia, due to the common use of a tourniquet. While the tourniquet prevents blood flow to the limb in order to achieve a bloodless operative procedure, it is particularly painful for an awake patient and can provide post-operative discomfort. However, this dynamic has changed with an important innovation in surgical technique. It is known as “WALANT,” which stands for Wide Awake Local Anesthesia No Tourniquet.

In this revolutionary procedure, the tourniquet has been replaced by the use of three medications in order to avoid anesthesia. These medications are lidocaine (to block pain), sodium bicarbonate (to eliminate injection pain) and epinephrine (to stop bleeding – a task formerly achieved with the tourniquet).

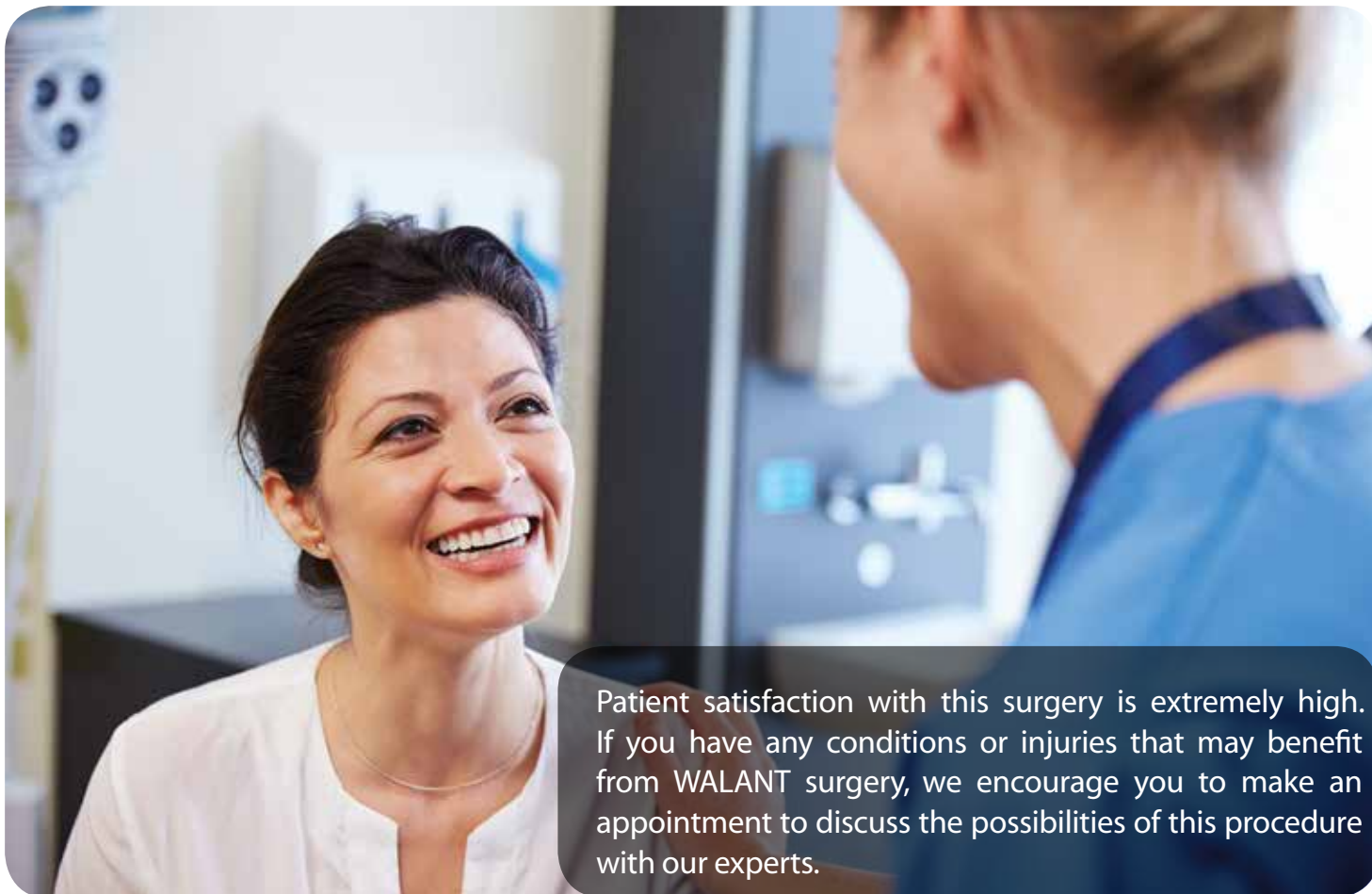
At UOA, our surgeons have performed this technique for a variety of hand surgeries, including carpal tunnel syndrome and trigger finger. WALANT is also available for de Quervain’s syndrome, flexor tendon repairs, tendon transfers, several arthritis surgeries for hand and wrist, excisions of masses and other procedures. Among others, this surgery particularly benefits older people with arthritis for whom surgery could relieve significant pain, but for whom anesthesia is contraindicated.

The benefits of WALANT hand surgery include:

- Less cost and shorter recovery
- No hospitalization as the surgery is performed on an out-patient basis University Surgery Center for Ambulatory Surgery (UCAS)
- No IV insertion
- No need to fast or stop taking any medications prior to surgery
- The ability for patients to demonstrate limb function during the procedure per surgeon’s request, allowing for functional evaluation of repair

With WALANT, patients can:

- Avoid pre-operative testing (blood work, EKG, etc.)
- Avoid sedation and fears of being “knocked out”
- Avoid recovery from sedation
- Avoid the risk of complications that may occur with anesthesia
- Conduct a useful conversation with the surgeon on the progress and nature of the procedure
- In select patients, you may be able to drive to and from surgery



Patient satisfaction with this surgery is extremely high. If you have any conditions or injuries that may benefit from WALANT surgery, we encourage you to make an appointment to discuss the possibilities of this procedure with our experts.

Two WALANT patient's stories:

Michele Hatch needed her hands. The 48-year-old Point Pleasant, NJ resident manages a large retail outlet, which entails consistently lifting boxes that weigh up to 50 pounds. But her job left her with severe carpal tunnel syndrome. "The pain was so bad it woke me up at night," she explains. Hatch tried remedies, such as medication and a splint, but nothing helped. She was reluctant to have surgery due to a past experience with anesthesia. After living in agony for eight months, she was still emotionally wary of a surgical solution.

Meanwhile, Geraldine Palma took a fall last Thanksgiving weekend, fracturing her wrist in three places. The injury led to severe carpal tunnel syndrome. "I can't tell you how excruciating the pain was," says the 76-year-old Middletown, NJ resident, who compared the intensity of that pain to childbirth. With a high pain threshold

having made it through breast cancer (including chemo and radiation) she couldn't find any relief from a splint or physical therapy.

Fortunately, both of these patients made their way to UOA, where their cases were successfully resolved with "WALANT" surgery. This innovative surgical technique was used with both Hatch and Palma by Dr. Christopher Doumas, a board certified hand and upper extremity specialist. "Michele Hatch was very apprehensive of standard surgery and Geraldine Palma had family cardiac issues, so the fact neither had to undergo sedation was a real plus."

Both women confirmed that they were delighted with the new alternative and it went hand-in-hand with the extraordinary care they received from Dr. Doumas.

Meniscal Root Tears

– An Overview



BY: PRASHANT BAKHRU, M.D.
MUSCULOSKELETAL RADIOLOGIST,
PRINCETON RADIOLOGY

Meniscal tears are a relatively common, often sports-related, acute knee injury. They can range from minor to severe and are most commonly caused by a quick twisting or turning motion when your foot is planted and knee is bent. Certain meniscal tears, however, occur gradually over a long period of time in older patients as their menisci degenerate.



Undiagnosed meniscal root tears can have serious biomechanical consequences. That is why it is important to make sure knee injuries are being evaluated by radiologists with sub-specialty expertise in musculoskeletal injuries using advanced imaging technology. Meniscal tears do not show up on plain X-rays because menisci do not contain calcium the way bones do. The high sensitivity and specificity of an MRI scan is helpful in evaluating the meniscus and diagnosing a tear. This article will further review the meniscal root tear, which can be subtle and easily overlooked.

The meniscus is a rubbery disc that cushions and lubricates your knee, helps you to balance, and protects the cartilage of your knee joint, keeping it from wearing out. Each of your knees has two menisci, the medial and lateral, which are located within the knee joint between the femur and tibia (shin bone). Between 40 to 70 percent of your body's weight is distributed through the

menisci as you walk, run or jump, with the cartilage lining the joint surfaces also adding support. Any injury to the meniscus that decreases its capacity to resist this axial stress will lead to altered biomechanics. This, in turn, will increase load across the cartilage and can lead to degenerative joint disease.



Fig 1. Sagittal plane image of the knee. White arrow denotes a normal posterior medial meniscal root. This is seen on the same image as portions of the PCL (solid blue arrow).

The meniscal root, in particular, is crucial as it represents a major attachment site of the meniscus to the tibia. A radiologist must evaluate this site in multiple planes when separation (avulsion) or a tear is suspected. The posterior root of the medial meniscus attaches just anterior to the posterior cruciate ligament (PCL). When reviewing an MRI, it is critical to visualize an intact posterior meniscal root on every sagittal image up to the image that shows the PCL (Fig 1). In the coronal plane, the posterior meniscal root is horizontally oriented and extends to attach at the medial tibial eminence (Fig 2).



Fig 2. Far posterior coronal image demonstrating normal posterior root attachment to the tibia.

It is important that posterior root tears (Fig 3) be diagnosed accurately and in a timely manner as several complications of meniscal root tears can occur, including meniscal extrusion, secondary osteoarthritis, and subchondral insufficiency fracture.



Fig 3. Far posterior coronal image demonstrating focal tear involving the posterior root of the medial meniscus.

Meniscal extrusion (Fig 4) is defined when the meniscus extends beyond the margin of the tibia. Meniscal extrusions of greater than 3mm are considered significant and often associated with posterior root tears. Extrusion is caused by disruption of the collagen fibers within the meniscus that naturally resist the hoop stress of weight bearing. Ultimately, extrusion leads to altered meniscal biomechanics, which puts increased stress on the knee



Fig 4. Same patient as in Fig 3 with more anterior coronal image. White arrow denotes a low signal curvilinear focus representing a subchondral fracture of the medial femoral condyle. Surrounding bright signal is marrow edema. Solid blue arrow is an extruded medial meniscus located beyond the confines of the tibia. The normal lateral meniscus is annotated for comparison (red arrow).

joint and cartilage. It is, in part, responsible for the accelerated osteoarthritis that can be seen in these patients.

In addition to accelerated osteoarthritis, this increased loading of the subchondral bone may lead to insufficiency fracture (Fig 4). Subchondral insufficiency fractures tend to have a predilection for the medial joint compartment and often associated with meniscal tears, most notably root tears and large radial tears. Patients affected with subchondral insufficiency fractures are typically older. It is thought that the combination of decreased bone density in older patients and the increased contact forces associated with the root tears of the meniscus leads to these insufficiency fractures.

In conclusion, it is important to promptly and accurately diagnose tears of the posterior root medial meniscus to avoid complications including accelerated joint degeneration and fractures. Making this specific diagnosis requires the advanced musculoskeletal imaging that is available at Princeton Radiology. Princeton Radiology offers the full breadth of orthopedic and sports medicine imaging including therapeutic and diagnostic procedures. It is our privilege to help support the active lifestyle of patients in our community.



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UCAS Receives Special Accreditations for Hip and Knee Replacement

The University Center for Ambulatory Surgery (UCAS) announced that it has earned two Gold Seals of Approval® for Orthopedic Certification from The Joint Commission for their same-day hip and knee replacement procedures. The Gold Seal of Approval® is a symbol of quality that reflects an organization's commitment to providing safe and effective patient care.

These certifications distinguish UCAS as the first freestanding surgery center in New Jersey with this special designation. They come in addition to the Center's overall Gold Seal of Approval®, which it has had since 2012.

UCAS underwent a rigorous onsite review to receive these distinctions. The Joint Commission experts evaluated compliance with national disease-specific care standards and joint replacement-specific requirements. Clinical practice guidelines and performance measures were also assessed.

The Joint Commission's Disease-Specific Care Certification evaluates clinical programs across the continuum of care and addresses three core areas:

- Compliance with consensus-based national standards
- Effective use of evidence-based clinical practice guidelines to manage and optimize care
- Organized approach to performance measurement and improvement activities

“Receiving The Joint Commission's Gold Seals of Approval® verifies our medical and professional staff's experience and expertise, and affirms our hard work providing quality care to the community,” says Stephen Kayiaros, MD, board certified orthopaedic surgeon, UCAS.



UCAS offers hip and knee replacements on an outpatient basis that enable the patient to receive surgery and return home the same day. Through same-day joint replacement, patients are able to avoid overnight hospitalization, reduce the risk of infection and recover faster from the procedure.

About University Center for Ambulatory Surgery

University Center for Ambulatory Surgery (UCAS) is a freestanding multi-specialty outpatient surgery center and shares a building with University Orthopaedic Associates in Somerset, New Jersey. UCAS specializes in orthopaedic surgery with a unique focus on same-day joint replacement and minimally invasive spine surgeries. UCAS consists of an experienced and innovative surgical staff alongside a team of nationally recognized anesthesiologists who specialize in pain management. In addition to The Joint Commission, UCAS is also certified by the Centers for Medicare and Medicaid Services (CMS), and the state of New Jersey.

UNIVERSITY ORTHOPAEDIC ASSOCIATES CONGRATULATES

Dr. James Monica and his Co-authors for Award-winning Research



University Orthopaedic Associates (UOA) is proud to announce that Dr. James Monica and his co-authors were recognized for their research paper titled *Adult Distal Radius Fractures: Does Volar Cortical Continuity Matter?* by the committee members and officers of the New York Society for Surgery of the Hand (NYSSH). The Society honored Dr. Monica and his co-authors, John Erickson, Owolabi Shonuga, Wylie Lopez and Javier Cabrera, of Rutgers Robert Wood Johnson Medical School, at its meeting on May 10, 2016 at the Union Club in New York City. The paper investigates the likelihood of avoiding surgery following closed reduction and casting of distal radius fractures.

NYSSH is the first regional hand surgery society of its kind and the model for other such organizations in the U.S. UOA applauds Dr. Monica and his co-authors for their efforts, and for their recognition by NYSSH.

UNIVERSITY ORTHOPAEDIC ASSOCIATES WELCOMES

William Baione, MD, to Our Practice



University Orthopaedic Associates (UOA) is proud to welcome Dr. William Baione, a joint replacement specialist, to our practice. As part of his extensive background, Dr. Baione was previously trained and mentored by current UOA orthopaedists, so his face is a familiar one, and we are thrilled to have him on board.

Dr. Baione discovered his passion for orthopaedics through his undergraduate and graduate studies in biomedical engineering, which he completed at the University of Miami, graduating with honors. His medical degree is from the prestigious Cornell University. Following his internship and residency at Rutgers Robert Wood Johnson Medical School, he completed a fellowship in adult reconstruction and joint replacement at the Florida Orthopaedic Institute.

Dr. Baione has assembled an impressive resume, beginning with his numerous academic honors. Passionate about what he does, Dr. Baione has a strong research background. In fact, his research and engineering studies have given him a special qualification in his current field. According to Dr. Baione, he went into medicine because, as he says, "I loved engineering, but it lacked the personal touch of interacting with people." His choice of careers is to his patients' benefit, as his intelligence and warmth are well combined with his medical skills. His Spanish-speaking patients will also appreciate his lifelong fluency in the language. You can explore the complete bio of Dr. Baione on our website www.uoan.com.

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Common Questions from Patients Who Are Considering Knee Replacement Surgery



BY WILLIAM BAIONE, MD

Is there an optimal age for joint replacement? Am I too young or too old for joint replacement?

We don't necessarily look at chronologic age as strict criteria, but rather physiologic age and how healthy a patient is. No one is ever too old or young for a joint replacement if they meet criteria for severity of arthritis, failure of conservative treatment, and the overall impact on quality of their life. Historically we used to tell patients that we wouldn't perform a total joint replacement until they were over 70 years old. This was largely based on the materials that were available at the time. Advances in material science have given us bearing surfaces that now last much longer, allowing us to implant them in younger patients who suffer from severe arthritis.

Will I be in a lot of pain following surgery? How long will I be in the hospital?

Arthroplasty has come a long way in terms of the management of post op pain. Patients used to stay in the hospital for up to a week. Now most people stay a day or two and, if they are suitable candidates, they can even go home the same day. Most people find that they are comfortable on the pain medications they are prescribed and progress back to normal activities after a few weeks.

Will I have to go to a rehab facility or can I go home following surgery?

It is becoming much less common for patients to go to rehab after the hospital. We have found that patients do very well recovering in the comfort of their own home, which often translates into a lower risk of post op infection. It is essential that they have the right support and services in place in terms of home nursing and physical therapy to optimize their outcome. We help coordinate those services.

How long is the projected recovery and what does it entail? How long will it take me to walk?

Each patient recovers differently, but we help guide them through the process. We like to get people up and walking the day of surgery. Many patients walk into the office for their first post op visit at 2-3 weeks with little to no assistance.

What can I expect following surgery? Will I be able to golf, go up and down stairs, sit on the floor with my grandchildren and live an active life? How long will it take for me to achieve those goals?

Most patients are able return to many of the activities that they enjoy without pain and can walk without a cane or pain meds after a few weeks. It can take several months to rebuild the endurance and strength they lost preoperatively, but with determination and physical therapy, they can get back to a level of activity they are accustomed to.

How long will a joint last? Will it need to be replaced?

Current research suggests that a well-implanted total joint replacement with current materials could last most patients the rest of their lives. In the event that a revision is required we have a vast array of treatment options available. Not all revisions are the same as they range from a simpler liner exchange to a complex removal and re-implantation with all new parts. That's why we like to monitor patients periodically with x-rays over time.

If I need to have both knees replaced, should I do this in one surgery or two separate surgeries?

In the right patient bilateral surgery can be a very good option because it eliminates the need for an additional surgery and hospitalization. The ideal patient has no major medical problems which helps reduce the risk of complications associated with increased surgery time and blood loss. They also need to be an active participant in the rehabilitation process which can be more strenuous. Patients that don't meet these criteria are better suited to do one knee at a time.

Why should I consider UOA for my knee replacement surgery vs going to another renowned facility.

There are many great surgeons out there, but the most important factor should be a patient's comfort level with the surgeon because joint replacements last a longtime and it could be the start of a very long relationship. In the unfortunate event that a complication arises, many patients find it challenging to coordinate care when they live far away from where they had their primary surgery. The surgeons at UOA are very well trained and able to provide quality care to patients in the very communities they live in.



Dr. William Baione

Dr. Baione is board eligible in orthopaedic surgery. He obtained his medical degree from the Weill Cornell Medical College at Cornell University and his bachelor's and master's degrees in biomedical engineering from the University of Miami. He completed his internship and residency in orthopaedic surgery at Rutgers Robert Wood Johnson Medical School followed by a fellowship in adult reconstruction and joint replacement at the Florida Orthopaedic Institute.

ACCOMPLISHMENTS

- Subspecialty certified in adult reconstruction and joint replacement
- Member of the American Academy of Orthopedic Surgeons (AAOS)
- Member of the American Association of Hip and Knee Surgeons (AAHKS)
- Member of the International Congress for Joint Reconstruction (ICJR)
- Presented over a dozen professional research and grand rounds presentations on various orthopaedic surgery topics
- Conducted clinical, basic science and biomechanics research at numerous institutions including the Department of Biomechanics, Hospital for Special Surgery; Max Biedermann Institute for Biomechanics Research at Mount Sinai Medical Center; Miami Beach; and Ryder Trauma Center at Jackson Memorial Hospital
- Outstanding Master's Student Award, University of Miami Dept. of Biomedical Engineering
- Honors graduate, University of Miami
- Society of Professional Hispanic Engineers (SHPE)
- Inducted into Tau Beta Pi - The Engineering Honor Society
- Inducted into Alpha Eta Mu Beta, National Biomedical Engineering Honor Society
- Fluent in Spanish

HOSPITAL AFFILIATIONS

- Jersey Shore University Medical Center
- CentraState Healthcare System
- Robert Wood Johnson University Hospital
- Central Jersey Surgical Center
- University Center for Ambulatory Surgery (UCAS)



Jeffrey R. Bechler, MD

Dr. Bechler is board certified in orthopaedic surgery. He earned his medical degree from New York Medical College after earning his undergraduate degree from Dartmouth College. He completed his internship and residency at UMDNJ-Robert Wood Johnson Medical School, and a fellowship in sports medicine at the Kerlan-Jobe Orthopaedic Clinic in Los Angeles.

ACCOMPLISHMENTS

- Subspecialty certified in orthopaedic sports medicine
- Head orthopaedic consultant for Princeton University athletics
- Academic appointment as a clinical associate professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- Published numerous articles in referred journals
- Speaker at numerous regional and national meetings
- Elected by his peers for inclusion in Best Doctors in America®

HOSPITAL AFFILIATIONS

- University Center for Ambulatory Surgery (UCAS)
- Center for Ambulatory Resources (CARES)
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital
- Jersey Shore University Medical Center
- University Medical Center of Princeton at Plainsboro



Mark S. Butler, MD

Dr. Butler is board certified in orthopaedic surgery. He obtained his medical degree from UMDNJ-Rutgers Medical School after earning his undergraduate degree and master's degrees from Lafayette College and Lehigh University. He completed his residency in orthopaedic surgery at UMDNJ-Robert Wood Johnson Medical School. Dr. Butler completed a fellowship at the Maryland Institute for Emergency Medical Services Systems specializing in traumatology and foot and ankle surgery.

ACCOMPLISHMENTS

- Subspecialty certified in traumatology and surgery of the foot and ankle
- Academic appointment as a clinical associate professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- New Jersey Task Force One (NJ-TF1) volunteer
- Published numerous articles in refereed journals
- Speaker at numerous regional and National meetings.
- Elected by his peers for inclusion in Best Doctors in America®
- Voted Top Doctor

HOSPITAL AFFILIATIONS

- University Center for Ambulatory Surgery (UCAS)
- Center for Ambulatory Resources (CARES)
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital
- University Medical Center of Princeton at Plainsboro



Gino Chiappetta, MD

Dr. Chiappetta is board certified in orthopaedic surgery. He obtained his medical degree from UMDNJ-Robert Wood Johnson Medical School after earning his undergraduate degree from Rutgers University. He completed his internship and residency at the University of Miami, Jackson Memorial Hospital. Following his residency, he did a fellowship at the Spine Institute of New York at Beth Israel Medical Center.

ACCOMPLISHMENTS

- Subspecialty certified in surgery of the spine and orthopedic trauma
- Academic appointment as a clinical associate professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- Inducted into the Alpha Omega Alpha Honor Medical Society
- Advanced training in robotic spine surgery utilizing the Mazor Renaissance Robotic® system
- Advanced training in cervical and lumbar disc replacement surgery
- Voted Vital's Patients' Choice Award
- Voted Top Doctor

HOSPITAL AFFILIATIONS

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- Central Jersey Surgery Center
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital
- Jersey Shore University Medical Center



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Michael P. Coyle, MD

Dr. Coyle is board certified in orthopaedic surgery. He obtained his medical degree from the Columbia University College of Physicians and Surgeons after earning his undergraduate degree from the University of Notre Dame. He completed a two-year surgical residency at the UCSF Medical Center Moffitt Hospital, followed by military service, Army Medical Corps (Vietnam). He also completed a residency at New York Orthopaedic Hospital, Columbia Presbyterian Medical Center. Following his residencies, he did a fellowship in hand and upper extremity surgery at New York Orthopaedic Hospital, Columbia Presbyterian Medical Center.

ACCOMPLISHMENTS

- Subspecialty certified in surgery of the hand and upper extremity
- Specialty certified in orthopaedic sports medicine
- Clinical Professor of Orthopaedic Surgery and Chief of Orthopaedic Hand Surgery at Rutgers Robert Wood Johnson Medical School
- Senior orthopaedic consultant at Rutgers University athletic department and team physician (football)
- Past President of the New York Society for Surgery of the Hand
- Senior member of the American Society for Surgery of the Hand (ASSH) and American Orthopaedic Society for Sports Medicine (AOSSM)
- Past Chief of Orthopaedic Surgery Department and President of the Medical Staff at Saint Peter's University Hospital
- Elected by his peers for inclusion in Best Doctors in America® for over 14 years
- Voted Top Doctor

HOSPITAL AFFILIATIONS

- University Center for Ambulatory Surgery (UCAS)
- Center for Ambulatory Resources (CARES)
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital



Charles J. Gatt, Jr., MD

Dr. Gatt is board certified in orthopaedic surgery. He obtained his medical degree from UMDNJ-Robert Wood Johnson Medical School after earning his undergraduate degree from Lafayette College. He completed his internship and residency at UMDNJ-Robert Wood Johnson Medical School. Following his residency, he did a fellowship specializing in orthopaedic sports medicine at the Cleveland Clinic Foundation.

ACCOMPLISHMENTS

- Subspecialty certified in orthopaedic sports medicine
- Orthopaedic consultant and team physician at Rutgers University
- Head orthopaedic consultant for Rider University Athletics
- Chairman of Orthopaedic Surgery at Rutgers Robert Wood Johnson Medical School
- Associate Professor of Orthopaedic Surgery at Rutgers Robert Wood Johnson Medical School
- Program Director of the Limb Salvage Program at Armed Forces Institute of Regenerative Medicine (AFIRM)
- Published numerous articles in refereed journals
- Speaker at numerous regional and National meetings.
- Voted NJ Top Docs
- Awarded Patients' Choice Award
- Elected by his peers for inclusion in Best Doctors in America®
- Patients' Choice On Time Physician Award

HOSPITAL AFFILIATIONS

- University Center for Ambulatory Surgery (UCAS)
- Center for Ambulatory Resources (CARES)
- Jersey Shore University Medical Center
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital
- The Medical Center of Princeton at Plainsboro



Christopher Doumas, MD

Dr. Doumas is board certified in orthopaedic surgery. He obtained his medical degree from UMDNJ-New Jersey Medical School after earning his undergraduate degree from the College of William & Mary. He completed his internship and residency at the University of Miami/Jackson Memorial Hospital. Following his residency, he did a fellowship in hand and upper extremity surgery at the Hospital of the University of Pennsylvania.

ACCOMPLISHMENTS

- Subspecialty certified in surgery of the hand and upper extremity
- Director of Hand Surgery at Jersey Shore University Medical Center
- Academic appointment as a clinical assistant professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- Volunteered as a surgeon in Haiti following 2010 earthquake
- Nurse's Choice Physician of the Year at Jersey Shore University Medical Center
- Co-author of the orthopaedic textbook Operative Techniques in Orthopaedic Surgery
- Founder and President of LibraryOfMedicine.com
- Inducted into the Alpha Omega Alpha Honor Medical Society
- Fellow of the American Academy of Orthopaedic Surgeons (AAOS)
- Member of the American Society for Surgery of the Hand (ASSH)
- Actively reviews scientific articles for publication in several prominent orthopedic journals

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David A. Harwood, MD

Dr. Harwood is board certified in orthopaedic surgery. He obtained his medical degree from UMDNJ-Rutgers Medical School after earning his undergraduate degree from Princeton University. He completed an internship at the University of California at San Francisco (UCSF) and residency at UMDNJ-Robert Wood Johnson Medical School. Following his residency, he completed a fellowship specializing in joint replacement and arthritis surgery at the Cleveland Clinic Foundation. He is involved on an ongoing basis with clinical trials for patients with degenerative knee diseases.

ACCOMPLISHMENTS

- Subspecialty in adult reconstruction and joint replacement
- Academic appointment as a clinical associate professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- Elected by his peers for inclusion in Best Doctors in America®
- Voted Top Doctor
- Member of the American Academy of Orthopedic Surgeons (AAOS)
- Member of American Association of Hip and Knee Surgeons (AAHKS)
- Has published multiple articles in peer-reviewed journals
- FDA 2014 study to investigate the efficacy and safety of a new total hip replacement construction
- Speaker at regional, national and international scientific meetings

HOSPITAL AFFILIATIONS

- University Center for Ambulatory Surgery (UCAS)
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital



Stephen Kayiaros, MD

Dr. Kayiaros is board certified in orthopaedic surgery. He obtained his medical degree from the UMDNJ-Robert Wood Johnson Medical School and his undergraduate degree from Johns Hopkins University. He completed his internship and residency in orthopaedic surgery as well as a fellowship in orthopaedic trauma at The Warren Alpert School of Medicine at Brown University, followed by a fellowship in adult reconstruction and joint replacement at the Hospital for Special Surgery in New York.

ACCOMPLISHMENTS

- Subspecialty in adult reconstruction and joint replacement and orthopaedic trauma
- 2015 Volunteer Faculty Award recipient, Robert Wood Johnson Medical School
- Member of the American Academy of Orthopaedic Surgeons (AAOS)
- Member of the American Association of Hip and Knee Surgeons (AAHKS)
- Clinical Assistant Professor, Department of Orthopaedic Surgery, Rutgers Robert Wood Johnson Medical School
- Senior Clinical Associate and Clinical Instructor, Dept. of Orthopaedic Surgery, Weill Cornell Medical College, Cornell University; Hospital for Special Surgery and Dept. of Orthopaedic Surgery; The Warren Alpert School of Medicine, Brown University
- Resident of the Year, Dept. of Orthopaedics, Warren Alpert School of Medicine, Brown University
- Inducted into the Alpha Omega Alpha Honor Medical Society
- Excellence in Pathology, Robert Wood Johnson Medical School
- Honors Graduate, Johns Hopkins University
- Nearly two dozen professional presentations on orthopaedic surgery topics as of 2016
- Fluent in Greek, working knowledge of French

HOSPITAL AFFILIATIONS

- Robert Wood Johnson University Hospital
- Jersey Shore University Medical Center
- University Center for Ambulatory Surgery (UCAS)
- Saint Peter's University Hospital
- Center for Ambulatory Resources (CARES)



Timothy P. Leddy, MD

Dr. Leddy is board certified in orthopaedic surgery. He obtained his medical degree from Jefferson Medical College after earning his undergraduate degree from Lehigh University. He completed his internship and residency at UMDNJ-Robert Wood Johnson Medical School. Dr. Leddy then completed a fellowship in surgery of the hand and upper extremity at the Mayo Clinic.

ACCOMPLISHMENTS

- Subspecialty certified in hand and upper extremity surgery
- Academic appointment as a clinical associate professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- Health Volunteers Overseas (HVO) Site Director 2005 - present
- Reviewer for Journal of the American Academy of Orthopaedic Surgeons
- Published numerous articles in referred journals
- Speaker at numerous regional and national meetings

HOSPITAL AFFILIATIONS

- University Center for Ambulatory Surgery (UCAS)
- Center for Ambulatory Resources (CARES)
- Jersey Shore University Medical Center
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital
- The Medical Center at Princeton
- Children's Specialized Hospital



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Matthew McDonnell, MD

Dr. McDonnell is board certified in orthopaedic surgery. He obtained his medical degree from New Jersey Medical School after completing his undergraduate degree at The College of New Jersey. He then completed his internship and residency training in Orthopaedic Surgery at Brown University and Rhode Island Hospital in Providence, RI. Dr. McDonnell completed a fellowship in Orthopaedic Trauma at Brown University followed by a fellowship in Spine Surgery at Rothman Institute and Thomas Jefferson University Hospital in Philadelphia, PA.

ACCOMPLISHMENTS

- Subspecialty certified in surgery of the spine
- Fellowship trained in spine surgery and orthopaedic trauma surgery
- Clinical assistant professor, Department of Orthopaedic Surgery, Rutgers Robert Wood Johnson Medical School
- Advanced training in robotic spine surgery utilizing the Mazor Renaissance Robotic® system
- Advanced training in cervical disc replacement surgery
- Served as Executive Chief Resident of the Orthopaedic Residency Program at Brown University/Rhode Island Hospital 2011-2012
- Awarded the Haffenreffer House Staff Excellence Award at Brown University/ Rhode Island Hospital 2012
- Awarded the Lucas/Palumbo Spine Achievement Award at Brown University/Rhode Island Hospital 2012
- Selected by his peers as Most Valuable Resident at Brown University 2010
- Served as a member of the Graduate Medical Education Committee at Brown University/Rhode Island Hospital 2010-2013
- Member of the American Academy of Orthopaedic Surgeons (AAOS); North American Spine Society (NASS); Cervical Spine Research Society (CSRS); Orthopaedic Trauma Association (OTA)
- Inducted into the Alpha Omega Alpha Honor Medical Society
- Published numerous peer-reviewed articles, abstracts and chapters in the fields of spine surgery and orthopaedic trauma

HOSPITAL AFFILIATIONS

- University Center for Ambulatory Surgery (UCAS)
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital
- Jersey Shore University Medical Center



James T. Monica, MD

Dr. Monica is board certified in orthopaedic surgery. He obtained his medical degree from Columbia University College of Physicians and Surgeons after completing his undergraduate degree from Johns Hopkins University. He completed his internship at the Brigham and Women's Hospital Department of Surgery and his residency at Harvard. He then completed fellowships at Massachusetts General Hospital specializing in hand and Upper extremity surgery as well as open and arthroscopic shoulder surgery.

ACCOMPLISHMENTS

- Subspecialty certified in hand and upper extremity surgery
- Orthopaedic hand and upper extremity consultant for Princeton University Athletics
- Rutgers Robert Wood Johnson Hospital Department of Orthopaedic Surgery Volunteer Faculty Teaching Award 2013
- Academic appointment as a clinical associate professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- Chief Resident, Harvard Combined Orthopaedic Residency Program, Massachusetts General Hospital 2009
- Resident Representative, Massachusetts General Hospital Committee on Teaching and Education 2007-2009
- Inducted into Alpha Omega Alpha Honor Medical Society in 2016
- Published numerous peer-reviewed articles and book chapters, and presented at regional, national and international scientific meetings in the United States, Scotland and Korea

HOSPITAL AFFILIATIONS

- University Center for Ambulatory Surgery (UCAS)
- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital
- Jersey Shore University Medical Center
- University Medical Center of Princeton at Plainsboro



David R. Polonet, MD

Dr. Polonet is board certified in orthopaedic surgery. He obtained his medical degree from the State University of New York (SUNY) Stony Brook after earning his undergraduate degree from Stanford University. He completed his internship and residency at the School of Medicine at SUNY Stony Brook. Dr. Polonet then completed a fellowship in traumatology at Harborview Medical Center.

ACCOMPLISHMENTS

- Subspecialty certified in traumatology
- Director of Orthopedic Trauma at Jersey Shore University Medical Center
- Academic appointment as a clinical associate professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- Volunteered as a surgeon in Haiti following the 2010 earthquake
- Associate Editor, Journal of Orthopaedic Trauma
- Fellow of the American Academy of Orthopedic Surgeons (AAOS)
- Fellow of the American College of Surgeons
- MD with Distinction in Research, School of Medicine SUNY at Stony Brook
- Published numerous articles in referred journals
- Speaker at numerous regional and national meetings

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- University Center for Ambulatory Surgery (UCAS)



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Carlos A. Sagebien, MD

Dr. Sagebien is board certified in orthopaedic surgery. He obtained his medical degree from UMDNJ-Robert Wood Johnson Medical School after earning his undergraduate degree from Hamilton College. He completed his internship and residency at UMDNJ-Robert Wood Johnson Medical School. Dr. Sagebien then completed a fellowship in traumatology at University of Maryland Medical Center/R Adams Cowley Shock Trauma Center.

ACCOMPLISHMENTS

- Subspecialty certified in traumatology
- Academic appointment as a clinical associate professor of orthopaedic surgery at Rutgers Robert Wood Johnson Medical School
- Director of Orthopaedic Trauma, Robert Wood Johnson University Hospital
- Member Orthopaedic Trauma Association (OTA)
- Fellow of the AO Foundation
- 2015 Volunteer Faculty Award recipient, Robert Wood Johnson Medical School
- Published numerous articles in peer-reviewed journals
- Speaker at numerous regional and national scientific meetings

HOSPITAL AFFILIATIONS

- Robert Wood Johnson University Hospital
- Saint Peter's University Hospital
- University Medical Center of Princeton at Plainsboro
- Jersey Shore University Medical Center
- Center for Ambulatory Resources (CARES)
- University Center for Ambulatory Surgery (UCAS)



Kenneth G. Swan, Jr., MD

Dr. Swan is board certified in orthopaedic surgery. He obtained his medical degree from Cornell University, where he also earned his undergraduate degree with a B.S. in Nutritional Sciences. He completed his internship and residency at the University of Medicine and Dentistry of New Jersey (UMDNJ). He subsequently did a sports medicine and shoulder surgery fellowship at the University of Colorado.

ACCOMPLISHMENTS

- Subspecialty certified in orthopaedic sports medicine
- Director, Division of Orthopedic Surgery, Raritan Bay Medical Center
- Director, Human Motion Institute, Raritan Bay Medical Center
- Fellow of the American Orthopaedic Society for Sports Medicine (AOSSM)
- Fellow of the American Academy of Orthopaedic Surgeons (AAOS)
- Team Physician, Woodbridge Township School District, NJ
- Team Physician, Perth Amboy High School, NJ
- "Gold Doc" Humanism Award, Arnold P. Gold Foundation 2014
- "Top Docs" Award, Inside Jersey Magazine 2012- 2013
- Clinical Assistant Professor, Rutgers Robert Wood Johnson Medical School
- Volunteer Faculty Award, Department of Orthopaedic Surgery, Rutgers Robert Wood Johnson Medical School 2011, 2016
- Resident Teaching Award, Department of Orthopaedic Surgery, UMDNJ-New Jersey Medical School 2005
- Published numerous articles in peer-reviewed journals
- Speaker at numerous regional and national scientific meetings; extensive medical and academic presentations

HOSPITAL AFFILIATIONS

- Jersey Shore University Medical Center
- CentraState Healthcare System
- Raritan Bay Medical Center
- Robert Wood Johnson University Hospital
- St. Peter's University Hospital
- Central Jersey Surgery Center
- University Center for Ambulatory Surgery (UCAS)

CONGRATULATIONS, DR. COOK!



Dr. Stephen S. Cook has devoted over 30 years of service to UOA as a board certified spine surgeon. During that time, he also served as a clinical associate professor at Robert Wood Johnson University Hospital (RWJUH).

Though he has recently retired, we are forever grateful for the decades of care he provided to his patients.

*Thank you for your years of dedication to UOA and our patients.
Your legacy of superior care will carry on.*



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Somerset County 2 Worlds Fair Dr., Somerset, NJ 08873 • 732-537-0909

Mercer County 211 North Harrison St., Princeton, NJ 08540 • 609-683-7800

UOANJ.com

Forty Years of Service as the Rutgers Orthopaedic Consultant



BY MICHAEL P. COYLE, JR., MD

Michael P. Coyle, Jr., MD, Orthopaedic Surgeon at University Orthopaedics has had the pleasure of volunteering his time to be the orthopaedic consultant for Rutgers athletics since 1977.

Following a deployment to Vietnam as a MASH doctor, Dr. Michael Coyle completed his residency and fellowship as a hand and upper extremity specialist and accepted a position with University Orthopaedics. “It all started on my first day working at University Orthopaedics when I was asked to serve as the orthopaedic consultant by Hyman Copleman, MD who was a general surgeon and the long time team physician at Rutgers. My senior partner, Dr. Joseph Zawadsky, was serving as the team physician at Princeton University at the time and when Dr. Copleman asked me to volunteer, I thought it sounded like a good idea. I had no idea I’d be doing it for forty years!”

Coyle’s first year with Rutgers was in 1977, the head football coach was Frank Burns, football went 8-3 and finished ranked 30th in the country by the Associated Press. At the time, Rutgers was playing the likes of Colgate, Princeton, Lehigh, and Columbia, but was beginning to play some of the bigger football schools like Penn State and Alabama. In 1978, Rutgers played in their first Bowl Game, the Garden State Bowl, where they played Arizona State. Games were played in the horseshoe of the old Rutgers stadium which had an open grassy end zone, brush in the corners and wooden bench seating. Over the next 40 years Coyle would witness a dramatic transformation in the athletic program which is now a member of the Big Ten Conference.

“I have worked with 8 different head football coaches, witnessed a dramatic transformation in schedule, facilities and in the caliber of athletes. In 1977 our schedule didn’t compare to what it is now. Players are so much bigger, faster and stronger than 40 years ago. Back then we looked like a high school team does now. The size and speed of the current athletes is phenomenal.”

Coyle notes that the increased size and speed of the game has led to an increase in injuries, both in number and severity. “Collisions are significantly harder and more intense. Consequently, the incidence of injury is increased. There has been a significant increase in head injuries as the recognition of concussions has certainly grown over the years”.

“We probably don’t see as many overuse injuries as we use to because the athletic training staff is so well trained, aware of the signs of over training, and the factors which contribute to its occurrence. The athletic trainers of 40 years ago would tell you to rub some dirt on it, tape it up and get back into the game. The modern athletic trainers are well educated, extremely knowledgeable, proactive and thorough. They really do a nice job of preventing overuse injury.”

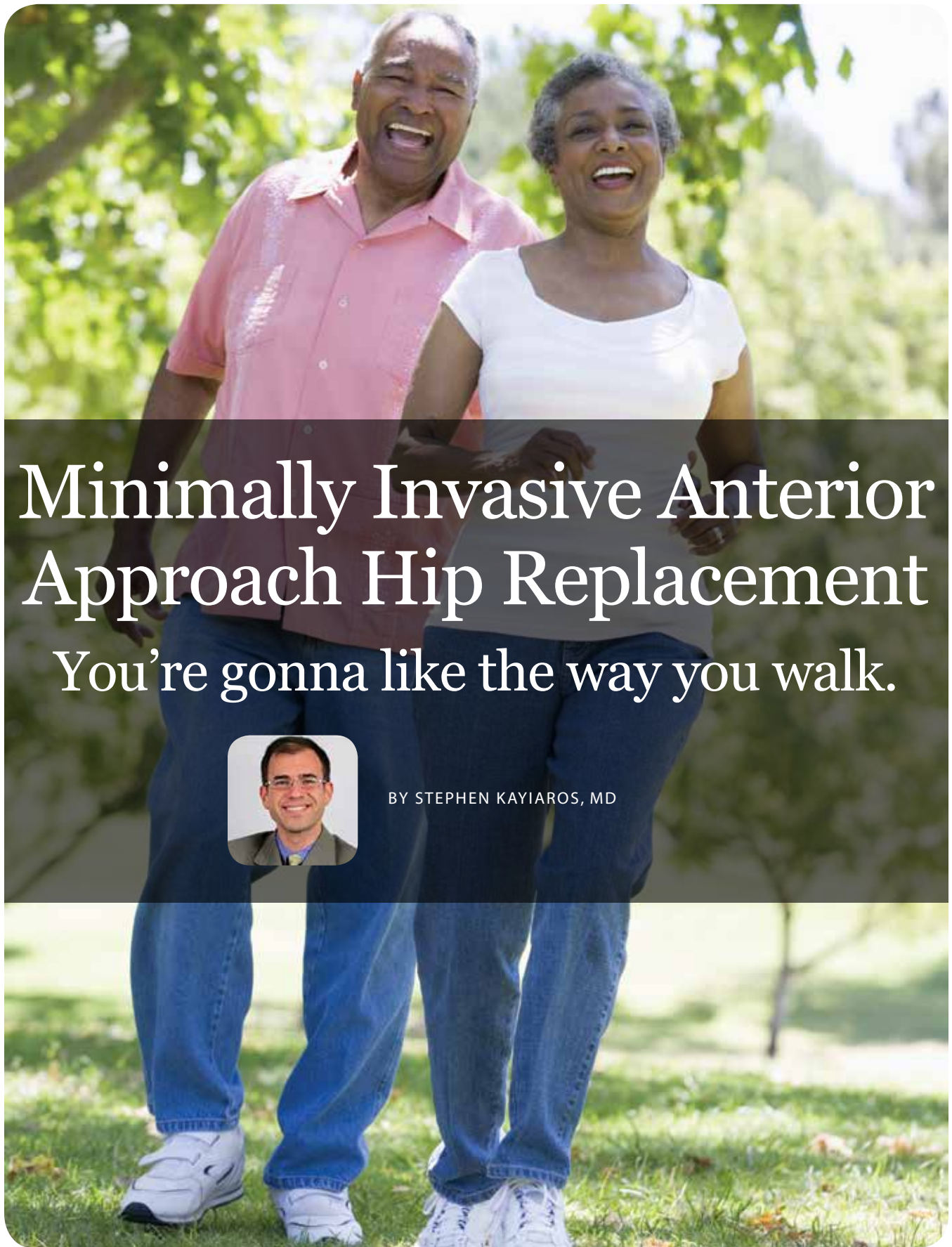
When asked about the changes in medicine that he has noticed over the years, Coyle noted “the growth, development and routine use of MRI, and the dramatic improvement in operative care, as areas which have really grown. Reconstructive surgery has come such a long way. When I started, arthroscopic surgery (minimally invasive) was in its infancy. It really took 10 years for it to evolve into a commonly accepted treatment option. Now- a- days it’s a staple of all good sports medicine specialists. In some ways you could equate orthopaedic surgery in 1977 to medicine in the 19th century, and today’s orthopaedic care in the 21st century. Sports medicine has seen a tremendous evolution in 40 years.”

When asked about his most memorable moment, he noted the day Eric LeGrand was injured at Giants Stadium. “As a physician I knew it as soon as I saw it happen. As I was running onto the field to assist with his care, I was sick to my stomach as I understood the implications of the injury. I was so sickened that the next day I almost resigned my position. It was truly tragic and to this day still upsets me.”

Asked to note his favorite part of the job, he quickly noted “THE KIDS! They are great. Being part of the game day excitement never gets old. I still get excited for game day. My heart beats faster. It’s always a thrill no matter who we play and the prize is watching the kids perform on a high level and achieve success.”

Dr. Coyle shares orthopaedic coverage with Charles J. Gatt, Jr., MD also of UOA. Together they provide orthopaedic care for nearly 1,000 Rutgers University Athletes. “Orthopaedics care has grown and literally involves daily responsibilities with the teams” note Coyle.

“I really do feel truly lucky to be involved with the Rutgers sports program. It continues to be a tremendous experience.”



Minimally Invasive Anterior Approach Hip Replacement

You're gonna like the way you walk.



BY STEPHEN KAYIAROS, MD

Approximately 300,000 total hip replacement surgeries are performed each year in the United States, 65 percent of them on people over the age of 65, according to the American Academy of Orthopaedic Surgeons, and this number is expected to exceed 500,000 by the year 2030. Conditions causing severe pain such as osteoarthritis, avascular necrosis, and post-traumatic arthritis, have led to younger patients needing hip replacement. There have been tremendous advances over the last 15 years in hip replacement surgery. The latest technological advancements in the materials that we are using have improved the longevity of the implants. We can confidently tell patients that their new hip should last them over 20 years, possibly a lifetime. Improvements in pain management have virtually eliminated the need for intravenous opioids and all of their unwanted side effects. Minimally invasive surgical techniques have allowed patients to recover more quickly, dramatically reducing their down time. We like to think of hip replacement as “interior plastic surgery” because patients are rejuvenated afterwards, having eliminated their pain and giving them their life back.

Minimally invasive anterior approach total hip replacement has rapidly grown in popularity because of its advantages for patients. This procedure allows our surgeons to approach the hip from the front, rather than a traditional posterior or lateral approach, and uses a truly muscle sparing approach. The procedure takes advantage of the Smith-Petersen interval, which exposes and replaces the hip through a natural interval between muscles, as opposed to cutting and reattaching them. The rehabilitation is easier and accelerated. In the last 5 years, there have been several published studies in the literature comparing the anterior approach to both the posterior and lateral approaches. Uniformly, these studies have shown that the patients having an anterior approach hip replacement have less pain, have a shorter hospital length of stay, are able to discontinue the use of a walking aid more quickly, are able to navigate stairs normally in a shorter amount of time, and have better functional outcome scores. Patients can expect a shorter hospital stay, as short as one night, and a faster recovery, about half the time of a traditional approach. It is not uncommon to see our patients walking in to their 4 week post-operative appointment “carrying” their cane. In selected and qualified patients, we are performing anterior approach hip replacement as a same day outpatient procedure. The procedure is done in a surgicenter and patients go home the same day. Because there are no restrictions for patients after surgery, the advantages of the anterior approach allow us to offer the procedure as an outpatient. They are seen by at home healthcare providers, including physical therapy daily as needed for 2 weeks, and then transition to an outpatient therapy program. We have had excellent results and outcomes in this cohort as well.

The minimal incision averages 8 to 10 centimeters long but may be longer depending on the patient’s body size. More important than the size of the incision is the trauma to the soft tissues underneath. While a very small incision may be attractive to patients, it can unduly cause tension and force on the tissues underneath during the surgery. The muscle preservation of anterior approach hip replacement is what truly makes this procedure minimally invasive, and accounts for the fast recovery experienced by the patient. Another advantage of the anterior approach is that the patient is supine during the operation. In addition to more accurately knowing and visualizing the position of the pelvis during surgery, we use live intraoperative fluoroscopy to ensure proper positioning of the prosthetic components and to accurately correct and match the leg lengths. In a smaller subset of patients with debilitating arthritis in both hips, the anterior approach easily allows us to perform simultaneous bilateral hip replacement surgery.

The risk of dislocation is also decreased with the anterior approach. This speaks to the muscle sparing nature of the surgery. The posterior soft tissue structures are also preserved with this technique, further increasing the stability of the prosthesis. The risk of dislocation with an anterior approach is approximately 0.5%. Conventional hip replacement surgery typically requires that most patients must follow strict precautions for 6 to 8 weeks following surgery. They must not flex the hip more than 90 degrees, which can be limiting in terms of doing normal activities, such as sitting, putting on shoes and socks, bending or getting in or out of a car. Climbing stairs may also be difficult during recovery. With anterior approach hip replacement, patients are instructed to bend their hip freely immediately following surgery and use their hip without such strict limitations. It facilitates quicker return to normal function and activities.

Anterior approach hip replacement surgery has taken this already successful operation and catapulted it into the 21st century. Because of the speed of the recovery, we try to offer this minimally invasive technique to all patients needing hip replacement surgery. There are some patients who may not be candidates. A thorough history, physical and radiographic examination can easily determine if patients are appropriate candidates for the anterior approach.

Stephen Kayiaros, MD is a joint replacement specialist as he is a board certified orthopaedic surgeon with fellowship training in Adult Reconstruction and Joint Replacement. To learn more about Dr. Kayiaros or to make an appointment, please visit www.uoanj.com/physicians-clinicians/stephen-kayiaros.

Ultimate Fracture Care

WITH UNIVERSITY ORTHOPAEDIC ASSOCIATES

Every year about 6.8 million fractures come to the attention of medical care experts in the United States. Additionally, the average person in a developed country can expect to sustain two fractures over the course of a lifetime.* University Orthopaedic Associates (UOA) has extensive expertise in treating all forms of fractures. The practice has five fellowship-trained trauma specialists, which makes our group qualified to provide a superior level of care to injured patients. Additionally, UOA surgeons direct the orthopaedic trauma services at Robert Wood Johnson and Jersey Shore University Medical Center, the area's only Regional Trauma Centers. Our physicians are integrally involved with the Rutgers, Robert Wood Johnson Medical School Residency Program, which is renowned regionally for its trauma care and training physicians.



BY DAVID R. POLONET, MD AND
CARLOS A. SAGEBIEN, MD

Why is UOA especially equipped to treat fractures and trauma patients?

UOA has the depth and breadth to tackle any and all complex injuries. Our five fellowship-trained trauma specialists have advanced training and extensive exposure and experience with complex traumatic injuries. It is education, exposure and experience that make UOA surgeons comfortable with the more multifaceted procedures.

In addition to our five trauma experts we have a team of orthopedists, each with additional training in a subspecialty of orthopaedic care. Being in the same practice allows us to take a team approach and utilize everyone's area of expertise to treat our patients.

UOA's additional expertise includes ligament reconstruction and post-traumatic joint reconstruction and replacement. Focal areas of specialization (such as hand, shoulder and knee surgery) provide

the type of diversity that helps solve even the most complex or multifaceted problems. For example, a shoulder fracture may be accompanied by a dislocation, which would benefit from the collaboration with one of our sports medicine surgeons.

What is the definition of traumatic fractures?

Traumatic fractures typically occur due to a high-energy impact such as a motor vehicle collision or fall from a high height. They involve more severe injuries of the extremities or more complicated cases, such as fractures of the pelvis or hip socket. Fractures involving joints require even greater attention to perfecting alignment surgically. Surgeons with more experience treating these injuries develop expertise that is unusual to find in the larger orthopaedic community. For this reason, many of the community-based surgeons refer patients with these injuries to UOA.



How often do UOA orthopaedists treat traumatic fractures?

Collectively, we have decades of experience working with these more complex fractures. Our trauma specialist surgeons perform an estimated 500 trauma procedures per year.

Will UOA treat patients who require “simple” fracture care?

At UOA no fracture is too “simple” or “complex” for us to treat. Patients should also understand that a “simple” fracture might not be that simple. The quality of care for even a “simple” procedure can directly affect a patient’s outcome, with long-lasting, even permanent, ramifications.

In addition, patients who may have a seemingly “simple” fracture may have other factors that will make it much more complex. For example, an elderly patient who has a hip fracture may also have osteoporosis, which will present a host of other challenges that require the attention from a trauma/fracture specialist.

At UOA our goal is precision, and we set the bar higher to achieve the best results.

What should patients as consumers know about fractures?

Patients should always request a clear explanation to better understand their injury and the steps necessary for recovery. Additionally, patients need to know they have a choice when

it comes to orthopaedic surgeons. Patients admitted to the emergency room can request a physician they would like to see. If the injury does not require emergency attention, patients should empower themselves to know who specializes in fracture care.

In addition to its doctors, UOA has diagnostic and rehabilitation services. How does that benefit fracture and trauma patients?

At UOA, we set a high standard of care by providing patients with a cohesive process, including all their care needs in one place. We offer onsite diagnostic testing including MRI, X-Ray and DXA Scans. We have a state-of-the-art ambulatory surgery center for our surgical patients. Following treatment, UOA offers on-site rehabilitation and physical therapy. We find it truly benefits the patient to offer all of these comprehensive services in one place under the supervision of the same physician.

UOA has a host of high-level qualifications. UOA surgeons also:

- Train residents and other students
- Lecture at national and international teaching forums
- Publish in peer-reviewed journals and texts
- Serve on surgical advisory panels and involved in the design of innovative orthopaedic devices
- Hold elected and appointed positions in hospitals
- Receive awards for excellence in patient care

**According to the National Ambulatory Medical Care Survey & American Academy of Orthopaedic Surgeons (AAOS)*

The Study of Adolescent Shin Pain



BY CHARLES J. GATT, JR., MD,
KENNETH G. SWAN, JR., MD,
AND JEFFREY R. BECHLER, MD

According to the American Orthopaedic Society of Sports Medicine, the number of youth injuries is reaching epidemic proportions and they are experiencing overuse injuries at a younger and younger age. The high rate of sports injuries is fueled by an increase in overuse injuries which impact young athletes in the short term and often lead to long-term consequences later in life and it is for this reason that UOA physicians Charles J. Gatt, Jr, Jeffrey R. Bechler and Kenneth G. Swan, are taking a proactive role by formally studying one of the most common overuse injuries; adolescent shin pain.

Adolescence (age 13-18; high school age) is a key time for hormonal changes, bony growth and structural development. Adolescent bone is not as strong as adult bones as it is more flexible, less mineralized and weaker than adult bone. During this time of development, the skeleton is undergoing rapid growth in both size and density. By the age of 20, 90-95% of lifetime peak bone mass is acquired in girls and boys.

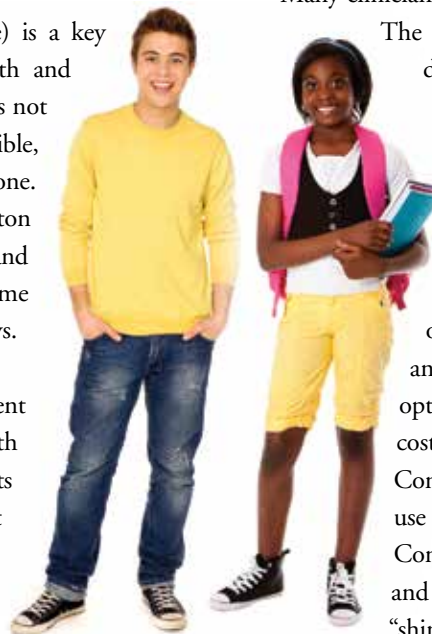
Adolescence is also a key time for involvement with sporting activity and involvement with high school sports. High school sports involvement increases the demands that are placed on the growing body. Changes of intensity, duration, and frequency of training, involvement with multiple

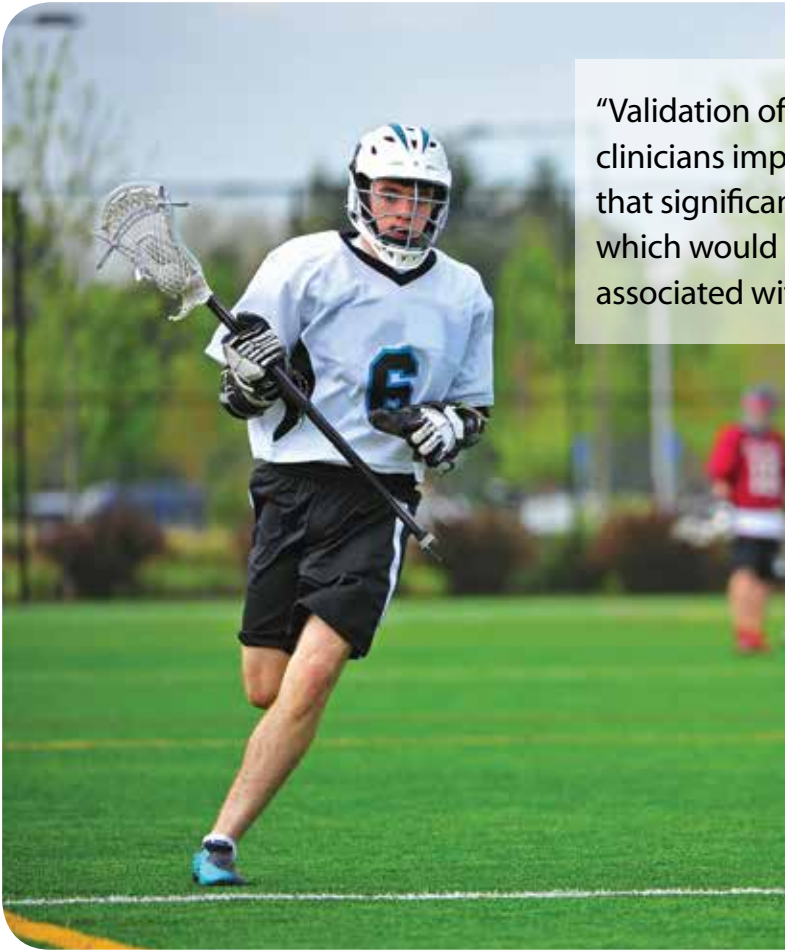
teams, single sport specialization, year round training all contribute to increased demands that are placed on the adolescent skeleton, and ultimately to overuse injuries.

One of the most common overuse injuries seen in high school sports is shin pain. There are a multitude of possible problems that can cause shin pain, the most common being, stress fracture, compartment syndrome, nerve and artery entrapment, and tendinitis. Primary care physicians have found the frequency of shin pain overwhelming, difficult to qualify and differentiate. Many clinicians routinely call chronic shin pain “shin splints”.

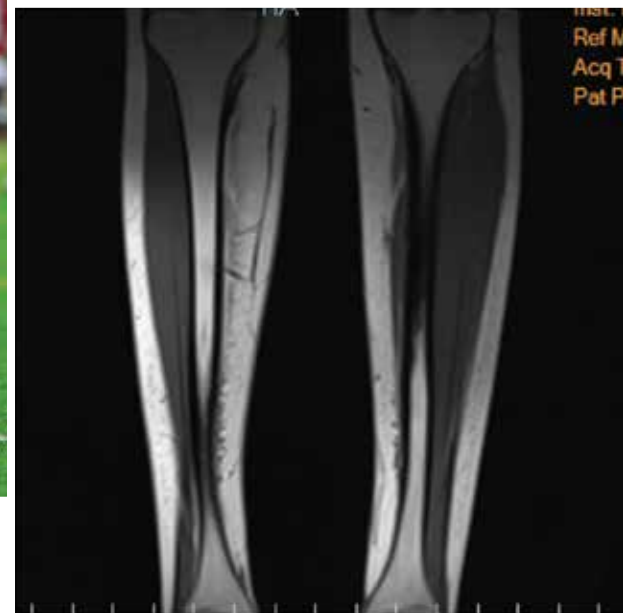
The term shin splints is a generic term, used to describe shin pain, yet it lacks a specific diagnosis and holds no medical meaning.

Use of an X-ray is generally the first image modality of choice by physicians, however, initial x-rays are rarely positive, and only 35-50% of serial x-rays demonstrate any evidence of injury. MRI offers the highest sensitivity and specificity of imaging, is considered the best option for imaging adolescent shin pain, but is costly and often not approved by insurance acutely. Concerns over radiation load have decreased the use of SPECT scans in the adolescent population. Consequently, many adolescents go undiagnosed, and shin pain becomes a chronic finding, termed “shin splints” with few receiving clear cut diagnosis.





“Validation of the Shin Pain Scoring System will help clinicians improve their clinical decision making so that significant shin problems can be identified earlier which would improve outcomes and decrease the issues associated with chronic shin pain.” – Dr. Gatt



The literature notes that delay in diagnosis can prolong recovery and negatively impact bone health in adolescents. Ultimately, chronic shin pain impacts sporting performance, causes many to quit sports and an active lifestyle. A sedentary lifestyle potentially could have a negative impact on lifetime health and well-being.

UOA physicians are currently involved in a Rutgers IRB approved study to better understand the factors which contribute to shin pain, stress fractures and to validate a clinical tool that was developed to help physicians improve their recognition of significant shin problems. “Many questions remain over the exact causes and best treatments for adolescent shin pain. We hope that this study will improve our understanding of the factors that contribute to adolescent shin pain and help us to develop better treatment options for our patients” notes Dr. Gatt. “Validation of the Shin Pain Scoring System will help clinicians improve their clinical decision making so that significant shin problems can be identified earlier which would improve outcomes and decrease the issues associated with chronic shin pain.”

The “Validation of Shin Pain Scoring System” study is currently enrolling adolescent athletes (13-18 y.o) who have a history of >1 week of shin pain and who volunteer to be a subject in the study. Participants will not receive any compensation, but they will receive a free exam and work up. Study participants will complete a brief questionnaire, undergo a clinical evaluation by one of our physicians, bilateral x-rays and MRI of both legs will be completed. The results of the questionnaire and clinical exam are recorded and scored on the Shin Pain Scoring Form which tabulates an overall shin pain score. The x-ray and MRI results are reviewed, graded by an independent musculoskeletal radiologist and used as a comparison for extent of injury. UOA hopes to present the findings next year.

Interested parties should visit the website to learn more about the study <https://www.uoanjer.com/validation-shin-pain-scoring-system-study>. Those who are interested in taking part in the study should call the Somerset office and enroll. 732-537-0909.



Why See a Hand Therapist?



BY GREG ROTH, MA, OTR/L, CHT

“A hand is one of your most important body parts and we use them for everything” notes Greg Roth, MA, OTR/L, CHT the Director of the Center for Hand and Upper Extremity Therapy at University Orthopaedic Associates (UOA). “When an injury occurs to your hand, we often don’t think about the long term implications that an injury can have on activities of daily living. Activities we take for granted, can become impacted if hand injuries are not treated appropriately. With hand injuries, there is a window of opportunity to be able to make a positive change in the function of the hand. Miss it and you end up with a deformity, dysfunction or disability that can negatively impact your life.” Because the window is narrow, Roth notes “it’s important for all hand injuries to be evaluated by a physician and rehabilitated by a certified hand therapist (CHT)”.

A CHT is an occupational therapist or physical therapist who has a minimum of five years of clinical experience, including 4,000 hours or more in direct practice in hand therapy. In addition, the Certified Hand Therapist has successfully passed a comprehensive test of advanced clinical skills and theory in upper quarter rehabilitation. Because of changes in the profession and advances in the field, every CHT is required to demonstrate continued professional development and competency by recertifying every five years.

A CHT can evaluate and treat any problem from the shoulder to the hand. CHTs can effectively treat and rehabilitate the patient through post-operative rehabilitation, provide preventative recommendations, non-operative or conservative treatment. To help to immobilize or protect healing tissues, CHTs can design and fabricate custom orthosis.

Whether it is the fabrication of a custom brace, or the hands on care of a dysfunctional finger, our highly skilled CHTs will collaborate closely with each patient and their healthcare providers in order to provide an individualized treatment plan. Each plan is geared specifically to maximize patient recovery in a quick and cost effective manner.

Our setting at UOA is unique. Since we work in the same building as the physicians, we maintain direct dialogue and UOA physicians even come to the clinic to check up on their patients. This interaction is an added benefit for the patient as it provides an optimal continuum of care. At UOA, hand injury care often starts within days of the injury or surgery and continues through the patient’s return to work and/or a productive lifestyle. It is this continuum of care that provides you the best opportunity to maintain a healthy and functional hand.

To learn more about The Center for Hand and Upper Extremity Therapy, our staff or to make an appointment, please visit www.uoan.com.

Trip and Fall Injuries to the Hand and Wrist: When to Seek Medical Assistance



BY TIMOTHY P. LEDDY, MD

Injuries of the wrist and hand from a fall is one of the most common injuries known. Most falls result in a reflexive action by the person to save themselves from greater injury to the head and neck by throwing their upper extremities out in front or behind them. This is a last ditch effort to break the fall and an evolutionary trait of self-protection. Unfortunately, it often results in a broken bone, a sprained joint or a strained muscle.

Ligaments are strong, fibrous collagen structures that connect bones together and stabilize the joints. Collagen is one of the most abundant proteins in the body. It makes up all of the connective tissue in the body including the ligaments, tendons, bone and even skin. There are many different types of collagen in the body. When ligaments are torn either partially or fully we consider the joint to be sprained, and complete tears lead to joint instability.



Tendons connect the muscles to the bones and facilitate movement of the joints. When a muscle is pulled or torn either partially or fully, we consider this to be a muscle strain. If the tendon is torn, we consider this to be a tendon tear or rupture. The difference between joint sprains, muscle strains and tendon ruptures can be significant for treatment and prognosis.

Most injuries from a fall on an upper extremity are minor and many go un-reported. Just think how many times in your own life that you had a fall and although it may have hurt for a day or a week you never thought about it again. Unfortunately, not all injuries are made equal. Some that would otherwise seem insignificant may result in significant instability of the wrist resulting in post-traumatic osteoarthritis or chronic instability, tenderness and functional loss.

Management of these injuries can change with the timing of the diagnosis. Initially, treatment is focused on conservative management and soft tissue healing when amenable. If an injury goes undiagnosed for a prolonged period of time, then conservative management alone, may not be enough. Some injuries require surgical management from the start, however the type of surgery may be dependent on how quickly and accurately the diagnosis has been made. For example, the most common carpal bone (small bones within the wrist) to fracture is the Scaphoid. If this fracture is displaced, then surgery is indicated. Early surgical management is typically simple screw fixation of a reduced fracture. If the diagnosis is delayed somewhat the surgery is a repair of a non-union that requires a greater surgical dissection and a more guarded prognosis. If delayed significantly and the scaphoid is not repairable then a salvage operation is considered to maintain stability and avoid the complication of post-traumatic osteoarthritis.

Therefore, the general progression of treatment follows a pattern of primary healing, repair, reconstruction, salvage, and finally fusion. The further down the treatment path, the more difficult the management, the recovery, and the outcomes are more guarded. Delayed treatment may result in loss of motion and decreased functional status.

The take home message is that if you have a fall onto the wrist or hand that feels like it may be more than just a simple sprain, then it should be evaluated for a more significant injury. Traumas that result in significant swelling and redness the next day are usually signs that a more severe injury has occurred. Minor sprains and strains will continue to be sore in the days that follow the initial trauma, however, will not have the hallmark swelling and redness of a more significant injury. Abnormal locking, clicking or popping of the affected joint can also be considered an indicator for more significant injury.

Dr. Timothy Leddy is a fellowship trained, board certified upper extremity specialist who sees patients at the Somerset and Princeton offices.

If you have suffered an upper extremity injury and are considering evaluation, please contact UOA to schedule an appointment with one of our fellowship trained, board certified upper extremity specialists.



UOA Offers Body Composition Scan

PROGRAM DESCRIPTION

Hard Core Fitness professional or weekend warrior? Starting a weight loss program or just curious about your actual body composition? Why not consider a Body Scan at UOA? Our Body Composition program utilizes the GE Lunar Prodigy Scan to provide you with a precise analysis of how your body mass is broken down. This scan is superior to other methods of body composition testing because of its accuracy and ability to distinguish factors including age, gender and regional body analysis.

The Body Composition scan provides accurate data on 3 primary measurements:

Bone Mass

Lean Tissue Mass

Fat Tissue Mass

WHO WILL BENEFIT FROM THIS PROGRAM?

Offered to anyone who is interested in learning more about his or her body composition

Useful for healthy individuals undergoing a strength and conditioning regimen

Helpful tool for people beginning a weight loss program to determine what their starting point is and to later reference when gauging progress

For more information, read our blog about GE Lunar DXA Scanner for body composition.

PROGRAM DETAILS

Offered by appointment

Pricing:

Single-body composition DEXA scan with consultation: \$150.00

Two consecutive body composition DEXA scans with consultation: \$225.00*

DEXA scanning is only performed Monday through Friday during regular business hours.

**Both scans must be completed within one year. Total fee must be paid up front. Cash, check or credit card payments are accepted.*


TIME:

The scan takes between 7 and 10 minutes, followed by a consultation lasting about 30 minutes.

LOCATION:

2 Worlds Fair Drive, 2nd floor

Somerset, NJ 08873



Whether you are a collegiate athlete,
a weekend warrior, an aspiring youth athlete,
or an individual just looking to get into better shape,
UOA Sports Performance and Wellness is here to help.

Train the **RIGHT WAY** with UOA



BY BLAKE SWAN, CSCS, TSAF-F, FMS, CPT, PHB

Specializing in strength training, functional exercise, injury prevention, speed enhancement, agility, fitness with an individualized, highly focused approach, the UOA staff is well-trained and prepared to help you achieve your goals. We realize that the best plans are not cookie cutter in nature, but rather individualized and tailored to your specific needs.

Why UOA?

At UOA, the difference is in our approach. Our highly trained and personalized staff is led by Blake Swan, C.S.C.S, TSAC-F, FMS, CPT, PHB. (Lots of initials = lots of training) Lots of gyms look nice, but we have the training and expertise to help you succeed. Our goal, is to help you achieve your goal.

We have a three step plan in place to help you achieve success.

Step 1: Screening the Individual

Everyone is unique and it is important that we determine your goals, abilities and limitations.

With the initial screening our highly skilled clinicians want to learn about your goals, concerns and limitations. We want to get to know you as a person. Our assessment begins from the ground up. Utilizing a Functional Movement Screening (FMS) we will assess your ease of movement, balance, strength and note areas of dysfunction. FMS helps us determine your abilities and pinpoint subtle areas that may be causing compensatory movement, trouble, pain or limiting your success.

Step 2: Designing Specific Routines for each Client

Based on our initial interview with you, our findings from the FMS, we will discuss areas in need of improvement and we will

design a tailored program to help you achieve your goals. We will create a client profile and begin to track your progress.

Step 3: Program Selection

Once your profile is created, and your goals established, we will create a program to help you achieve your goals. Not all programs are alike. At UOA, our programs are based on science, a solid understanding of kinesiology and biomechanics and tailored to the individual needs of the client. Whether the program is for:

- **Injury Prevention:** For individuals who want to reduce their risk of injury. We specialize in injury reduction programs for ACL, Shoulder, and Low Back Injury Prevention. Our “Bridge the gap” program helps recovering patients who have been discharged from physical therapy, return to full activity at the highest level in a safe manner.
- **Sports Performance:** For individuals looking to enhance their physical abilities for the purpose of improving their performance in sport. The ultimate outcome is measured by individual performance on the field of play. Whether for career or recreation, take your performance to the next level by increasing your strength, speed, power and agility, while minimizing the risk of a serious injury.
- **Health & Wellness:** For individuals looking to improve their health through weight loss, increasing muscle mass, movement, balance and improving body image. Our focus on wellness is aimed at improving the overall health and quality of life of the client.
- **Body Comp:** UOA is one of the few places to offer DXA scanning to help individuals determine their bone health, lean body mass and fat content.
- **Tactical Strength & Conditioning:** Programs for individuals interested in pursuing or currently actively involved with law enforcement, military, and emergency personnel. This is useful for any tactical athlete who wishes to excel in the field with specific regards to their OPORD or Operations Orders.

No matter your need, we can design a plan for you!

Through our three step, personalized process, and the use of our state of the art facilities, we hope to help you “train the right way with UOA.” To learn more about UOA Sports Performance and Wellness, or to set up a consultation, please visit our website www.uoanjanj.com/sports-performance





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