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ORTHOPAEDIC HEALTH



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MEDIA PLANET

ORTHOPAEDIC HEALTH

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Osteoporosis And What You Need To Know

RY: AMY MCGUIRE PORTER EXECUTIVE DIRECTOR AND CEO FOR THE NATIONAL OSTEOPOROSIS FOUNDATION

Osteoporosis is common. Osteoporosis is serious. Osteoporosis can be deadly. You cannot feel your bones getting weaker. You can have osteoporosis and not know it. Often a broken bone is your first clue.



Amy McGuire Porter

steoporosis is a disease characterized by weakened and fragile bone tissue, leading to an increased chance of breaking a bone. The weakened tissue is due to changes in the amount and structure of bone. While people with osteoporosis are most likely to break bones in the spine, hip or wrist, almost any bone can be affected. The bone breaks often occur with minor accidents such as falls, or banging into objects, but can even occur without any injury.

Osteoporosis is a major public health threat for more than 44 million Americans. In the U.S., 10 million individuals are estimated to already have the disease and more than 34 million are estimated to have low bone mass, placing them at increased risk for osteoporosis.

Established in 1984, the National Osteoporosis Foundation (NOF) is the leading consumer and community-focused health organization dedicated to the prevention of osteoporosis and broken bones, the promotion of strong bones for life

and the reduction of human suffering through programs of public and clinician awareness, education, advocacy and research.

I am excited to join the NOF team as the newly appointed Executive Director and CEO. I am dedicated to health-related nonprofit work and look forward to bringing my professional expertise to serve the Foundation, patients, healthcare professionals, and most importantly our loyal donors and supporters.

It is our clear goal to advance bone health and osteoporosis to the top of the national healthcare agenda and lower the incidence of osteoporosis in the United States. We are working to increase awareness of osteoporosis and bone health among women and men of all ages and backgrounds. Our initiatives are dedicated to diminishing the scope and burden of the disease and helping people maintain active, healthy and independent lives.

NOF has partnered with other bone health advocates and organizations to initiate campaigns focused on both the prevention and management of osteoporosis. Through programs like Best Bones Forever!, aimed at girls ages 9-14, and Know My Bones, serving the post-menopausal woman, NOF is working toward our goal of

promoting healthy bones for life.

The National Osteoporosis Foundation is committed to the prevention, diagnosis and treatment of this disease. For more information, visit www. nof.org or call 1 (800) 231-4222.

Amy McGuire Porter is Executive Director and CEO for the National Osteoporosis Foundation. Ms. Porter joins NOF with more than twenty years experience in the nonprofit sector. She has played key roles in executive, communications and development positions, working to further the missions of many forward thinking and visible healthcare institutions.

Osteoporosis is a major public health threat for more than 44 million Americans. In the U.S., 10 million individuals are estimated to already have the disease...



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Physical Therapy's Important Role In Recovery

It's imperative that patients undergoing orthopaedic surgery understand physical therapy's role in their recovery: Without physical therapy, patients cannot expect to quickly and successfully recover from their surgery.

irst you need to understand surgery's affect on the body.

"The body responds to the surgery as if trauma has occurred," says Janet Cahill, a doctor of physical therapy and section manager of acute care orthopedic rehabilitation at the Hospital for Special Surgery in New York City. "This results in post op swelling that inhibits muscle strength and hinders range of motion." Additionally, while the body takes time to heal from surgery, Cahill says that physical therapy can actually expedite that healing and even help reduce post-surgical symptoms.

"Physical therapy is a critical component to rehab, because you want to build strength or rebuild strength in the affected area, decrease post-op swelling and maximize flexibility to enable you to carry out your daily activities and return to being fully functional," says Cahill.

Let's say you've had arthroscopic surgery on your knee. (Arthroscopy is to orthopedic surgery what laparoscopy is to major surgery, such as to remove a gallbladder—basically, a surgery done without making a large incision.) Within a week of your surgery, you would see a physical therapist to evaluate your recovery needs.

"We would be looking at your baseline strength, flexibility and range of motion compared to the limb that was not operated on," says Cahill. "Then our goal is to get the patient to their presurgery level of function."

Patients usually spend four to eight weeks in physical therapy, with 45-minute to one-hour long sessions once or twice a week. Here's what a typical knee recovery physical therapy session would include:

- Warm up on a bike
- Stretching the muscles you last used, such as your hamstrings and quadriceps
- Strength training to target these key muscles, which surgery likely affected. That strength training might include squats and lunges; some physical therapy facilities do this strength training in the water for people who aren't strong enough to support their body weight

Applying non-exercise modalities, such as icing the affected area or using electric stimulation "to reeducate the muscles to restore tone," Cahill explains.

As a patient's recovery progresses, so does his physical therapy regimen. So with someone coming off of knee surgery that aspires to start running again, his physical therapist might add "plyometric power activities such as jumping onto a box, first with both legs, then with only one leg," explains Cahill.

"After they can jump and land on a single leg, I would try to have them run on the treadmill," she adds.

While not every physical therapy patient wants to resume his marathon ways, Cahill says that physical fitness, rather than age, greatly affects how well and how quickly someone recovers through physical therapy."If pre-op you were a high-level recreational athlete, you will do better post op," she says. However, if you weren't active before and you go to physical therapy for one hour a day, only to spend the remaining 23 hours a day inactive, Cahill adds, "Your recovery through physical therapy may not be as successful as it could be."

Ideally, a physical therapist will be able to consult with your surgeon about your injury and treatment, but that doesn't always happen—whether it's because a surgeon doesn't have a close relationship with a physical therapy practice he can refer his patients to or because the patient's insurance dictates where the patient can go to

physical therapy. Regardless, "just like it's important to go to a surgeon that is well trained and has expertise in the injury that required surgery, the same applies to the physical therapist," says Edmond Cleeman, MD, a boardcertified orthopedic surgeon and founder of TRIARQ, a community of physicians and physical therapist working together in the area of musculoskeletal healthcare. "It is important that the patient find a therapist with expertise in that type of post surgical care." Cahill, who specializes in orthopedic rehabilitation, is one such person.

Despite her expertise, Cahill has to rely on the patient for his medical history. "You don't always get a reliable history from the patient or the patient doesn't understand the history of what happened," she says.

For example, patients may think that they hurt their shoulder from playing recreational volleyball. But in fact there were other contributing factors. "We see a tremendous amount of patients who have a poor ergonomic set-up at work, which can lead to shoulder injuries," says Cahill. Sure, someone can come to physical therapy to recover from shoulder surgery, but if you don't correct the work environment that contributed to the injury, the person may find himself right back where he started fromfrom an injury perspective. It becomes Cahill's job to pull these kinds of details out of the patient's medical history so she can ensure the best recovery possible. And this is the outcome any physical therapist should want.



Then our goal is to get the patient to their pre-surgery level of function.

Non-Surgical Options: Orthopaedic Conditions

Millions of Americans have problems with their bones and joints. For starters the American Association of Orthopaedic Surgeons says that nearly 12 percent of the population suffer from osteoarthritis. As the population ages that number is expected to grow.

esides arthritis there are other common bone-and-joint issues affecting many other Americans—especially among athletes. These include tennis elbow (one to two percent of the population) and knee problems (they account for 26 percent of all injuries).

Despite all this dire news about medical afflictions, there is some good news: You can treat most of these conditions successfully with a non-surgical approach when working with specialists in non-surgical orthopedics.

One such specialist is Steven Sampson, a board-certified Physical Medicine and Rehabilitation doctor in Los Angeles. Patients who end up in his office do so because they want to work with a doctor "who is not biased towards surgery and is open to other options," says Sampson. One of "Sampson's approaches that patients seem to like is that he doesn't just look to treat the symptoms and pain; he looks to heal them. "People are looking for more cost-effective ways to reduce pain and address the underlying biomechanical problem," says Sampson.

Take cortisone shots, a non-surgical mainstay for orthopedic problems.

While patients feel better in two to three days after a cortisone shot, "the effects wear off over the long term," says Dr. Sampson. "Cortisone has been shown to cause more injury with scarring and calcifications, causing damage to tendon and cartilage. Then people need more cortisone and the response is less powerful each time."

These days there are many more options than just cortisone shots, including some that offer healing options along with pain relief. One such procedure that shows the greatest promise focuses on platelet-rich plasma (PRP).

"We know that platelets do blood clotting and form scabs," says Dr. Sampson. "But it turns out that platelets help the body heal itself and that they facilitate soft tissue regeneration." He explains that doctors started using PRP in dentistry to reduce bleeding but then the doctors realized that it was promoting healing, too. Soon PRP use expanded to cosmetic surgery and cardio-thoracic surgery. More recently it made its way into the world of orthopedics.

"I first learned about [PRP] three and a half years ago when I was working with a orthopedist who treated European soccer players that were using [PRP] as an injectible," says Sampson. "People that had hurt their knee ligament and had PRP injected into the injured area cut their recovery time in half."

PRP soon became the go-to treat-

ment for tennis elbow, groin injuries, hurt hamstrings and problems with Achilles tendons as well as rotator cuffs.

Here is how doctors like Sampson use PRP.

They begin with the patient's own blood. When a patient arrives for the procedure, the doctor draws blood from the patient's arm, and then places it in a centrifuge. About 30 minutes later the centrifuge has "spun out" the blood and removed unnecessary parts of it, leaving behind the platelets. After applying a local anesthetic to the area the doctor is going to treat, the doctor injects the platelet-rich blood into the injury site. Doctor's like Sampson use ultrasound to guide the injection so that it's "within a millimeter of the injury," he says. From start (the blood draw) to finish (after the injection), the treatment takes 45 minutes.

Unlike cortisone shots patients often do not feel immediate relief. Many times they have to understand

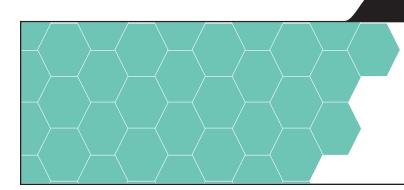
that things have to get worse before they get better—meaning that as the healing begins, they may feel more pain. "This is not a quick fix; it takes time to regenerate," says Sampson. But in the long run, they will feel better because they will have healed their injury on a cellular level. "We've seen remarkable results with a single injection," he adds. However, most people require one to three PRP injections at four-week intervals.

The one area where PRP doesn't always provide long-term relief is in severe cases of arthritis or other joint injuries. "It's not the age of the patient but the degree of cartilage viability," says Sampson. "We can determine the outcome better to treat someone with mild to moderate arthritis rather than bone on bone arthritis. In these instances we tell people from the outset that we're guardedly optimistic." In instances where PRP brings "less promising outcomes," says Sampson, surgery is the likely outcome.

It should bring patients peace of mind knowing that these non-surgical options are out there. The only downside to some of them? Insurance companies currently consider PRP to be an experimental treatment and, therefore, don't cover them. But given the cost of surgery—both in terms of dollars, pain, recovery time and more—even without insurance coverage, non-surgical treatment options like PRP are still probably less expensive in the long run.

Cortisone has been shown to cause more injury with scarring and calcifications, causing damage to tendon and cartilage. Then people need more cortisone and the response is less powerful each time."

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Healing Wounded Warriors: The Army's Orthopedic Surgeons

Your shattered hip or fractured ulna probably won't be reconstructed by one of our nation's finest orthopedic surgeons, unless you happen to be an American service member, his spouse or child.

t isn't that their civilian counterparts lack the Army orthopedists' skills. They just don't often see patients such as a 20-year old with burns over 90 percent of his body and an arm and a leg lost to a roadside bomb in Iraq. That soldier was treated by Todd Feathers, MD, third year orthopedic surgical resident and Captain in the USA Medical Corps at Brooke Army Medical Center (BAMC). "I felt so close to him," explains Dr. Feathers. "It's almost impossible to survive that much burn, but he did and recovered well enough to get around in a motorized wheelchair. He'd play basketball and fall out of his wheelchair. break a bone and I'd fix him up."

"Our civilian peers are excellent surgeons but they rarely see the complexity and severity of injuries that we do. We have to think outside the box to devise unconventional treatments to save mangled limbs and lives," says Captain Joanna Branstetter, MD. Citing a soldier with a large lower leg wound that would ordinarily require amputation because of the gap between leg bones, she describes applying a Taylor spatial frame for 9-12 months, which gives "six degrees of freedom to straighten the leg." A computer program directs the patient to adjust the frame's six struts every day until the bone mends.

It's not all heart-stopping orthopedic care at BAMC and Madigan Army Medical Center in Tacoma, where Dr. Branstetter deploys next. Military orthopedic surgeons treat service members' dependents and retired personnel as well as active duty soldiers, sailors and

airmen. That brings countless elective hip, knee, bunion and carpal tunnel surgeries. "In some ways we have a normal orthopedic surgical practice with an added subset of wounded soldiers," adds Dr. Branstetter, who recently completed a sixth year of residency researching advanced wound care.

Although some deploy to the battlefield, all of the Army's orthopedic surgeons learn war medicine. Through the Defense Medical Readiness Training Institute (DMRTI), physicians from the Army, Air Force and Navy receive combat casualty training, preparing them to provide basic field medical and survival skills, to work in battalion aide stations, advanced trauma training, and medical forward support. Col Alan Moloff, DMRTI's former director, now retired,

said, "T=the course is the first echelon of care for physicians, physician assistants, nurses, dentists and medical service corps officers to be combat casualty ready."

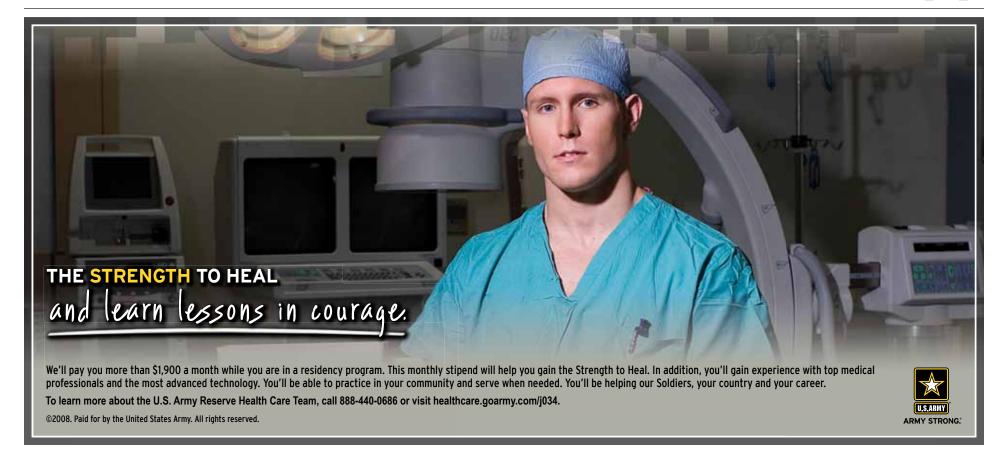
Dr. Feathers explains how training works in a war zone: "Someone on the battlefield stops any bleeding and transfers the soldier to a combat support hospital for stabilization. Then it's on to Landstuhl AFB in Germany where they're treated more comprehensively, then sent to BAMC or another U.S. facility within three days of their injury."

Military orthopedic surgeons have chosen a rigorous path. Drs. Feathers and Branstetter aren't alone in their commitment to military medicine. Dr. Feathers says he would choose the same route again. "Working with these disfigured soldiers every day, it's amazing they remain so positive. They have been dealt terrible hands by war and life, but they fight hard to recover. We are exposed to extreme and compli-

BY: MARLENE PITURRO

cated cases and are highly sought after for civilian practice. But to work with young soldiers who lose a leg and want to go back to the battlefield to serve their country yet again is a powerful reward," he says. Dr. Branstetter claims she's got the best job in the world. "I expected my soldiers to be horrible and mean because of what they have suffered but they are so upbeat. They are the best of the best," she concludes.

Military
orthopedic
surgeons have
chosen a
rigorous path.



Orthopaedics And Your Child

Childhood is filled with bumps and bruises, and most injuries resolve on their own.

ut there are certain bonerelated conditions for which parents should consult a pediatric orthopedic surgeon, a doctor that the American Association of Orthopaedic Surgeons (AAOS) describes as the best-trained and most experienced doctor to properly evaluate and treat musculoskeletal (bone, joint, or muscle) problems in a child who is still growing.

Here are the four most common orthopedic problems in children.

Condition: Hip dysplasia

What it is: The condition occurs when a hip joint is shallow, unstable or when the joint is dislocated. The AAOS says that hip dysplasia is the most common congenital defect in newborns.

Why it happens: Risk factors include

breach presentation at birth, being a twin or triplet or a family history of hip dysplasia, says Michael Vitale, MD, MPH, associate chief, division of pediatric orthopaedics at New York-Presbyterian Morgan Stanley Children's Hospital.

Why you should see a pediatric orthopedist: Since infants with the condition are often at risk of developing arthritis as a young adult, it's critical to have a doctor that specializes in bones and joints to treat them.

How it's treated: The pediatric orthopedist fits the child with a Pavlik Harness, a soft brace that helps to hold the legs in an optimal position for hip development. Dr. Vitale says that in 10 percent of cases, the child may need surgery.

Condition: Scoliosis

What it is: Scoliosis is a sideways cur-

vature of the spine. On x-ray the spine seems to be make an "S" or "C" rather than being straight up and down.

Why it happens: Dr. Vitale says that scoliosis can be hereditary, but the most common type of scoliosis is called adolescent idiopathic scoliosis—meaning it occurs when a child begins going through puberty and there is no known cause.

Why you should see a pediatric orthopedist: "Scoliosis can be silent and hard to pick up," says Dr. Vitale, who recommends that all pediatricians and schools screen for scoliosis and then refer the child to a pediatric orthopedic surgeon if necessary.

How it's treated: A spine curved 50 degrees or more needs surgery.

Condition: Foot problems

What it is: The most common foot

problem in young children, says Dr. Vitale, is club foot.

Why it happens: Club foot occurs when a child is born with feet that twist inwards so that the bottom is actually facing upwards. Club feet vary from mild to severe.

Why you should see a pediatric orthopedist: If club foot is not treated and corrected, it can cause severe handicaps later in life.

How it's treated: Most doctors start by using braces and casts. If those don't work, then surgery is the next option.

Condition: Broken bones

What it is: Basically, a fracture of the

Why it happens: Many children suffer what's called pediatric sports injuries—broken bones that result from some sort of accident they sustained while playing a sport.

Why you should see a pediatric orthopedist: "Injuries that involve

a growth plate have to be carefully monitored," says Dr. Vitale, explaining that each bone in the body has two growth plates and children's growth plates don't "close" until the child stops growing completely. When dealing with a broken bone, he adds, "you have to align the growth plate properly or the bone can end up growing asymmetrically." This asymmetry can lead to other orthopedic problems later in life.

How it's treated: Casting and sometimes surgery.

Injuries that involve a growth plate have to be carefully monitored.



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Los Angeles Orthopaedic Hospital is a recognized world leader in orthopaedic patient care, research and education. We provide improved quality of life for children and adults, conduct breakthrough musculoskeletal research and train tomorrow's health care professionals. For nearly a century, Los Angeles Orthopaedic Hospital has been helping children with orthopaedic conditions lead healthy, active lives, regardless of their family's ability to pay.

The Hospital is expanding its treatment and research facilities in downtown Los Angeles and across the Westside. In alliance with UCLA, the Orthopaedic Hospital Research Center in Westwood, the pediatric outpatient Clinic in Santa Monica and adjacent Santa Monica-UCLA Medical Center and Orthopaedic Hospital are ensuring more children get the specialized care they need.

Los Angeles Orthopaedic Hospital has multiple locations to serve you:

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- Orthopaedic Medical Center Urgent Care

Santa Monica

- Santa Monica-UCLA Medical Center and Orthopaedic Hospital
- Orthopaedic Hospital Institute
- Renee and Meyer Luskin Children's Clinic of Los Angeles Orthopaedic Hospital

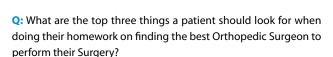


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Panel Of Experts



THOMAS P. SCHMALZRIED, MD Orthopaedic Surgery (Board Certified) Joint Replacement Institute at St. Vincent **Medical Center**



A: When a patient is looking for a surgeon, perhaps the best credential is that the surgeon is known and respected by other surgeons. The "surgeons' surgeon," if you will. Ask other doctors what they know about a prospective surgeon. Another good credential is an independent recommendation from another patient who has had surgery with that doctor. The doctor's office can put a prospective patient in touch with post-surgical patients, which is helpful. But for obvious reasons, an independent recommendation is stronger. The surgeon should have current experience with the procedure in question. Currently doing the procedure (on a weekly basis) is probably more important for surgical skills than having done hundreds sometime in the past. Patients should be cautious in the interpretation of surgical volume. Just because a surgeon has done lots of cases does not mean that he has done them well! Get information about the outcomes of those procedures. Top surgeons will have data to share and may have even published their results.



STEVEN SAMPSON, DO **Orthohealing Center**

Q: There are various benefits to using PRP. What do you find the most valuable benefit for your patient?

A: PRP revolutionizes the way we think about and treat common orthopedic injuries. When I first began using PRP over 3 years ago I was seeing remarkable results in patients that had been to other doctors and were told that there were few conservative treatment options and surgery was imminent. While some treatments such as cortisone often provide short-term benefits, they may actually be causing further damage by promoting scarring, calcification, tendon tearing and cartilage destruction. There is a distinct need for alternative therapies that are naturally based and pose little threat of worsening the condition, while restoring function to the affected area.

The human body has a remarkable ability to heal itself and PRP facilitates this organic response by releasing concentrated growth factors into the affected area to stimulate tendon and cartilage repair. By integrating state of the art technology we are able to locate the injury site within a millimeter to ensure precise treatment.

There is a growing demand to remain physically active in the Los Angeles community. After all, where else can you surf and ski and in the same day! PRP is particularly appealing because there are few activity restrictions. In fact activity is often encouraged to promote circulation and healing. Patients with new injuries can maximize their healing potential with a PRP treatment and potentially avoid surgery. In chronic injuries, when all else has failed, PRP is a viable option to avoiding surgery. Currently, we are conducting extensive research on PRP to better understand which orthopedic conditions can maximally improve.



ANTHONY A. SCADUTO, MD Lowman Professor and Chief **Pediatric Orthopaedics** Los Angeles Orthopaedic Hospital

Q: How can I find the most appropriate orthopaedic specialist for

A: Although the field of orthopaedic surgery originally focused on treating children, pediatric orthopaedic surgeons represent only about 10-15 percent of the field today. Studies in the United States show there is a shortage of well-trained pediatric orthopaedic surgeons.

Parents should endeavor to find a fellowship-trained pediatric orthopaedist for their children. These are surgeons who take additional fellowships in pediatric orthopaedics after completing their five year residency. Many, but not all fellowships are accredited by the Accreditation Council for Graduate Medical Education (ACGME). Qualified pediatric orthopaedic surgeons may not be available in certain communities. In that case, a general orthopaedic surgeon who treats a large number of children with traumatic disorders, such as common fractures, would be a very capable alternative. Los Angeles Orthopaedic Hospital offers two ACGME accredited fellowship positions in pediatric orthopaedics.

Another way of knowing if your orthopaedic surgeon is experienced in treating children is if he or she is a member of the Pediatric Orthopaedic Society of North America. Members dedicate at least 75 percent of their medical practice to the treatment of children and attend educational conferences devoted to pediatric orthopaedic surgery.

Treatment of fractures and sports injuries in children can be quite different than for adults due to the presence of growth plates. If not treated properly, the child's bone may grow crooked resulting in permanent deformity. This is another reason to seek a fellowship-trained pediatric orthopaedic surgeon. For more severe problems, children will probably be referred to a center like Los Angeles Orthopaedic Hospital for further evaluation.

Orthopedic Specialties

Here are the top 10 orthopedic specialty areas, with the percent of AAOS members with fellowships in that area, according to the AAOS report Orthopaedic Practice in the U.S. 2008. Note: Surgeons may have selected more than one specialty area, so percentages do not total 100 percent.

- Adult knee (34.4 percent)
- · Arthroscopy (34.3 percent)
- · Sports medicine (33.4 percent)
- Total joint (28.4 percent)
- Shoulder (25.1 percent)
- · Adult hip (24.9 percent)
- Trauma (16.5 percent)
- Hand (15.4 percent)
- Adult spine (11.0 percent)
- · Foot and ankle (10.2 percent)

Overview Of Sports Medicine

Tommy John used to be best known as an unbeatable pitcher for the Los Angeles Dodgers in the 1970s. These days he's best known in the world of sports medicine for an orthopedic surgical procedure, named after him and used to repair an elbow injury.

or years sports medicine, a subspecialty of orthopedics that typically deals with injuries to the shoulder, knee, hip, and ankle, was limited to the world of professional athletes like Tommy John. But with 13-year-olds playing baseball year round and damaging their throwing arm at an early age—and getting the Tommy John procedure done even before they've entered high school—sports medicine has trickled down to the Average Joe and Jane athlete.

Sports medicine is exactly as it sounds—a practice to treat sports injuries. "When you're training in sports medicine, you do a fellowship so you get a concentrated focus and education on how to treat sports injuries," explains Stephen J. Nicholas, MD, director of the Nicholas Institute of Sports Medicine and Athletic Trauma and orthopedic surgeon at New York City's Lenox Hill Hospital. Part of that training and education includes how to do minimally invasive surgeries, such as arthroscopy, or suturing techniques that allow the athlete to recover and return to his game faster.

According to Peter J. Millett, MD, MSc, director of shoulder surgery, shoulder, knee, and sports medicine orthopedic surgery at the Steadman Clinic in Vail, Colorado, the most common sports injuries include:

- Injuries to the shoulder, such as rotator cuff tears and shoulder separations
- Knee injuries, such as ligament tears, or cartilage or meniscal injuries.
 The athletes most likely to injure their shoulder—specifically the rotator cuff, which is located at the

top of your arm and is a part of the shoulder joint—are those that play in sports that require repetitive overhead use of their arm, says Dr. Millett, who is also a physician for the U.S. Ski Team. These sports include baseball, volleyball and golf. Shoulder separation, which occurs when the ball of the shoulder comes out of the joint, usually happens during a contact sport. You'll see football, hockey and lacrosse players with dislocated shoulders.

With knees injuries involving this body part, they are best known by their abbreviations: ACL (anterior cruciate ligament), MCL (medial collateral ligament) and PCL (posterior cruciate ligament). These are the ligaments that hold the knee in place. However, only one almost always results in a patient needing surgery—an ACL injury.

The American Academy of Orthopedic Surgeons says that more than 200,000 people injure their ACL each year, making it one of the most common sports injuries. Someone who has hurt his ACL usually reports feeling as if his knee has "popped." In many instances the athlete has not only torn the ligament but also the meniscus, which acts as a shock absorber for the knee. In 2009 the Cincinnati Children's Hospital published a study in the British Journal of Sports Medicine on ACL injuries. While soccer players, skiers and football players injured their ACL, this study showed how young female basketball players were more prone to ACL injuries than players in any other sport.

Dr. Nicholas says that in many instances, the treatment you offer a patient with a sports medicine injury

depends more on his lifestyle than anything else. "If I have a patient who works out two hours a day and plays sports every weekend, I'm more likely to reconstruct [with surgery] that person," he says. "Whereas with a sedentary person, I'm more likely to put him through significant outpatient recovery, such as physical therapy, rather than surgery. Why put a person through major reconstruction if they're never going to put demands on that body part that would justify surgery?"

When surgery is called for, doctors turn to arthroscopy, which allows them to repair the ligament and tendons without making a big incision. Dr. Millett explains that when doctors make arthroscopic repairs of the labrum and rotator cuff in the shoulder, they are literally sewing

the tendons back on the bone, or they are reconstructing it altogether. With ACL reconstruction or meniscus repair, "a new ligament is created out of another piece of tissue from the patient's body," he says.

"Many of the procedures that sports medicine specialists perform share a common theme in that the orthopedic surgeon is working to restore the soft tissue structures (ligaments, tendons, and cartilage) that are so vital to our joints' well being," Dr. Millett adds. "When damage occurs, it s the sports medicine specialist's job to diagnose the problem and repair it in a way that allows the patient a full return to sports and everyday function, as quickly and safely as possible."

When damage occurs, it is the sports medicine specialist's job to diagnose the problem and repair it in a way that allows the patient a full return to sports and everyday function, as quickly and safely as possible.

