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.

Besides 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 an orthopedist who treated European soccer players that were using [PRP] as an injectable,” 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 treatment 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.

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Panel Of Experts

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Q: What are the top three things a patient should look for when doing their homework on finding the best Orthopedic Surgeon to perform their Surgery?
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.

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.

Q: How can I find the most appropriate orthopaedic specialist for my child?
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)