SHOULDER INSTABILITY

The shoulder is the most complex joint in the body. It requires a balance of MOBILITY and STABILITY to function properly. The joint is made of a socket (glenoid, part of the shoulder blade), a shallow coffee-cup saucer shape with a giant ball (humeral head, upper part of the arm bone) sitting in the middle. The ball must stay centered despite the demands we ask of the shoulder with movement in all directions.

Several structures work together to keep the shoulder stable. These include rotator cuff muscles, shape of the ball & socket, the labrum (rubbery cartilage structure where the ligaments attach to the bone of the glenoid and the shoulder ligaments/capsule (envelope of tissue that surrounds the entire joint). All of these must be working properly for the shoulder to function at high demand without pain or instability (feeling as if the ball is coming out of place). Each contributes differently in each patient with some people more dependent on muscle for stability while others depend on the labrum, etc.

Patients can have different degrees and types of instability. You can have one or a combination of these:

- **Direction**: anterior (forward), posterior (backward), inferior (downward), superior (upward), or any combination (multi-directional)
- **Method of Injury**: traumatic (from a violent action, usually a fall or sports), atraumatic (usually from being loose jointed) or micro-traumatic (from repetitive overload, commonly seen in overhead sports such as swimming, pitching, tennis) or a combination
- **Frequency**: acute (recent, single event), recurrent (has happened more than once) or chronic (term usually reserved for a dislocated shoulder that has never been put back into place)
- **Severity**: dislocation (ball comes all of the way out), subluxation (ball slides part of the way out but goes back in)

The DIAGNOSIS can be made by the history and the physical examination of BOTH shoulders in the office. Sometimes, repeat exams are needed if the event was recent. Plain x-rays are important to obtain to rule out a broken bone or abnormal appearance/shape of the shoulder. An MRI or CT scan, with or without dye injected into the shoulder, is sometime needed to confirm or evaluate a suspected tear of a ligament or cartilage in the shoulder. Tests are usually done for surgical planning.
The treatment will depend on your age, activity level, arm involved (dominant or non-dominant), type of problem, future activity desires and urgency. Sometimes, the decision of the proper treatment technique cannot be made until an exam has been performed under anesthesia (to confirm true looseness of the joint) and a diagnostic arthroscopy (to look at all of the structures of the shoulder). The goal of any of these treatment methods is to tighten the shoulder BACK TO NORMAL to keep it stable without limiting its mobility. Below is a very brief description of the treatment options.

**Rehabilitation:** Using a very specific exercise program, the muscles of the shoulder are strengthened and balanced to allow the shoulder joint to work more efficiently and keep the ball centered on the socket. This is usually used first in atraumatic and micro-traumatic cases and some traumatic injuries. It is used for all shoulders after surgery. Scapular stabilization and rotator cuff strengthening are the key aspects.

**Arthroscopic Surgery:** Typically part of all surgical procedures of the shoulder joint, this utilizes a small fiberoptic instrument to look into the joint. This is done prior to any open surgery to confirm the problem and to look for any other problems that may need to be addressed at the same time. It is also the most common way that I repair torn cartilage and ligaments in the shoulder.

**Open Surgery:** This is the "gold standard" to which all surgeries are compared. We have been doing this the longest and it is very reproducible. However, over the last 20 years, I use it only when I cannot do the surgery arthroscopically since the complications with open are more significant (higher rate of infection, nerve injury, shoulder stiffness and the rehab is longer). However, when it is necessary, the results are usually excellent. It may be the only choice in complex revisions.

As the shoulder is a very complex joint, the diagnosis and treatment of problems of the shoulder are even more complex. I hope that this information helps you to understand what may be the problem with your shoulder.

Please check our website for more information about the shoulder.

On behalf of my office staff, we look forward to your speedy recovery.