When a shoulder dislocation is more than a dislocation

The shoulder possesses a remarkable range of motion, making it one of the most mobile and important joints in the body. It also is the most commonly dislocated joint in the body and the majority of the dislocations occur when the arm is forced upward and outward behind the



body, dislocating the humeral head (ball of the upper arm bone) out the front of the glenoid (shoulder socket). This injury tears the labrum and ligaments that help hold and stabilize the ball in the socket.

Sometimes during a shoulder dislocation, the edge of the glenoid bone fractures. This is referred to as a Bony Bankart fracture or lesion. When the Bony Bankart fracture fragment is still present and reparable,

surgery is recommended. Dr. Steven Chudik performs the surgery arthroscopically through several small incisions where he inserts special instruments he designed and a small camera to "see" and perform the fracture repair. For large fragments, Dr. Chudik created a special arthroscopic guide and approach that allows him to grasp, realign and repair the fracture back into its native position on the glenoid.

Often, resulting from recurrent dislocations, the glenoid bone can traumatically wear away and create a glenoid bone loss/deficiency problem. Glenohumeral bone loss compromises stability and without restoration of the bone loss, there is a very high re-dislocation rate even with repair of the torn labrum and ligaments.

In the past, glenoid bone loss of 20 to 25 percent was the threshold for surgical reconstruction of the bone deficiency. However, recent research shows young and active patients with glenoid bone loss of only 13.5 percent are at risk for future surgical repair of their failed soft-tissue labrum and ligaments. Therefore, new guidelines recommend glenoid bone reconstruction for even less bone loss.



X-ray of an anterior shoulder dislocation

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Shoulder dislocation

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There are multiple surgical interventions used for the treatment of shoulder instability with significant glenoid bone loss. The most popular technique is the open Latarjet procedure where using an larger open approach, the surgeon transfers the coracoid bone from the patient's shoulder along with the attached biceps muscle through the subscapularis rotator cuff muscle to reattach the prepared coracoid to replace the glenoid bone. The Latarjet procedure is effective in restoring shoulder stability, but it alters the normal anatomy of the shoulder and has a high risk for complications and creating post-traumatic arthritis.

Another option is reconstructing the glenoid bone loss with a free bone graft such as the autologous iliac crest from the patient's hip, autologous distal clavicle (collar bone) from the patient's shoulder or distal tibial allograft from a cadaver ankle. This procedure also is typically performed through a large open incision and approach, and results in injury to the subscapularis rotator cuff. A recent randomized study showed relatively no significant difference in the clinical and radiologic outcomes of the Latarjet procedure compared to the free bone grafting techniques, but the free bone



Former ruby player, Shawn Bastic, competes in CrossFit challenge after undergoing shoulder surgery developed by Dr. Steven Chudik to repair glenoid fractures caused by repeated shoulder dislocations. grafting resulted in significantly better range of motion (external rotation) than the Latarjet procedure.

As a pioneer in arthroscopic surgery, Dr. Chudik has been successfully performing a minimally invasive arthroscopic procedure he created more than ten years ago to reconstruct glenoid bone loss using the instruments he designed. The surgery recreates the anatomy of the glenoid bone and avoids the large, open approach and subscapularis rotator cuff damage in the shoulder that occurs with other repair procedures. As a result, many of Dr. Chudik's patients have benefited from his arthroscopic glenoid reconstruction surgery and returned to their pre-injury shoulder functional level.

For a patient's firsthand account of his suffering from repeated shoulder dislocations and how he ultimately underwent Dr. Chudik's novel surgical procedure, read Shawn Bastic's story on the next page.



Repeated shoulder dislocations, surgeries don't sideline former rugby player

If you've never seen a rugby game, the best way to describe it is football without helmets and pads. As a full-contact sport without protective gear, rugby players are prone to orthopaedic injuries—just ask Shawn Bastic, former University of Illinois—Chicago (UIC) and founding member of the Chicago Riot Rugby Club.

While playing rugby for UIC, Bastic dislocated his left shoulder in the fall of 2002. He completed rehabilitation and the following spring dislocated his shoulder again. "I was told by the physician that dislocations commonly reoccur," explained Bastic. "To help prevent it from possibly happening again, I opted for surgery and went through the entire rehabilitation process, again."

However, his recovery was short lived. During the next three years, Bastic dislocated his left shoulder several more times, each time requiring a trip to the emergency room and ultimately another surgery at the same highly-respected academic Chicago hospital. The repeated dislocations, surgeries and months of rehabilitation didn't dissuade Bastic from playing. "I continued to play," said Bastic. "I just wasn't ready to give up the game."



Eventually, though, the dislocations got to be too much. "My shoulder continued to dislocate frequently and at random, odd times, like reaching overhead, working out, or just doing everyday tasks," Bastic said. "I wanted to remain active, but also knew I had to do something or as I got older I was going to have even worse problems."

Fortunately, a teammate's father was an orthopaedic surgeon and referred Bastic to Dr. Steven Chudik, an orthopaedic surgeon and sports medicine physician with the Steven Chudik Shoulder and Knee Injury Clinic who specializes in shoulder and knee arthroscopic surgery. Upon examining Bastic's shoulder, Dr. Chudik ordered a 3-D CT scan that confirmed what he suspected—a damaged shoulder socket (glenoid) that wasn't repaired during previous surgeries.

"Shawn's prior surgeries failed because the surgeons missed the bony injury to the shoulder socket," Dr. Chudik said. "The socket is like a golf tee and if part of it is missing, it can't hold the golf ball in place," he explained. In the case of a glenoid, the broken portion is naturally re-absorbed so bone has to be taken from another part of the body to rebuild the socket. According to Dr. Chudik, this seldom -performed surgery is done in America through an open incision and requires cutting the rotator cuff and dislocating the shoulder. Fortunately for Bastic, Dr. Chudik developed a procedure and surgical instruments to reconstruct the glenoid arthroscopically and he was the first in the country to undergo the procedure. "Since Shawn's surgery, I've done many more all with great outcomes like his," Dr. Chudik said.

Although no longer playing rugby, Bastic remains active in the sport refereeing games in Chicago and the Midwest. He also competed in a Half Iron Man race and several CrossFit challenges that included weight lifting and rowing. "I'm doing things now I couldn't before my surgery with Dr. Chudik," Bastic explained. I have my active lifestyle back and I'm looking forward to being able to play with my daughter as she grows up. Maybe even teach her how to play rugby," he joked.

