

Careful throwing prevents shoulder injuries

It has 108 stitches of bright red wax cotton thread on pure white leather. Measuring 9 inches around and weighing five ounces, it is rubber and cork at the core with layers of twine. If thrown hard enough, it can travel in excess of 90 miles an hour.

It’s hard to imagine that throwing something that small can cause damage. But if a baseball is thrown hard enough – and often enough – the movement can damage a rotator cuff or tear the cartilage in the thrower’s shoulder.

“Throwing a ball is a biomechanically difficult task. The amount of force and speed of rotation is impressive,” said **Dr. John R. Green III**, Husky team physician and UW associate professor of orthopaedics and sports medicine. “It’s amazing that a body is capable of throwing at such speeds.”

Anyone who is an overhead athlete – tennis players, volleyball players or throwers – is at risk of injuring his or her shoulders, Green said. Injuries can include:

- Tears in the shoulder’s labrum, the cartilage rim around the socket
- Damage to the rotator cuff, which is made up of the four muscles around the ball and socket joint in the shoulder
- Bone spurs or ligament tears in the elbow.

“For problems that develop slowly, most people get better with rehab,” Green said. But for those who don’t improve or have a sudden injury, surgery may be the best way to return function.

The UW Medicine Sports Medicine Clinic sees all kinds of athletes from the “recreational athlete who is just trying to stay healthy to Husky collegiate athletes and select professional athletes,” he said. “Injuries at the beginning of the season are frequently related to inadequate preseason preparation. It is often too much too soon, when the sun comes out in the spring.”

When an athlete comes in with a sore shoulder, the physicians first take a medical history and examine the shoulder. X-rays are obtained to look at the bones and assist in making a diagnosis.

Most of the time, patients improve with appropriate physical therapy.



“If they don’t get better with selected exercises, often we do an MRI and see if there’s a mechanical problem impeding rehabilitation,” he said.

If surgery is needed, it’s almost always done arthroscopically, meaning the surgeon makes small incisions to repair the shoulder. Those surgeries are done on an outpatient basis, followed by several months of rehabilitation.

Shoulder problems can occur when an athlete changes from one sport to another without a rest in between. The key is to throw for



Dr. John R. Green, III

Photo by Bill Stickney.

short periods during a year, with long rests in between, Green said. Limiting the maximum number of pitches and the number of games helps prevent injuries. But coaches, parents and players don’t always follow the guidelines, he said.

If a thrower’s arm is rehabilitated, Green recommends an interval throwing program to help throwers regain their strength, motion and confidence by gradually increasing the number of throws and the distances.

Rico Le May is pitching for his school baseball team again this season after a successful surgery to repair his shoulder.

Prevent throwing injuries

Warm-up before throwing by:

- Stretching
- Running
- Easy, gradual throwing
- Avoiding overusing the arm
- Limiting the number of pitches and games.

Watch for throwing injuries

Listen for:

- Complaints of pain in the overused area. The player may first note this pain when the affected area is used and again later when it is at rest.

Look for:

- Change in throwing form
- Other outward signs that the player has pain, such as continually rubbing a sore area.

Feel for:

- Tenderness to pressure over the injured area (mild, moderate, severe)
- Swelling (usually not present).

Move:

- See if the player can move the joint fully (compare to other side). This is especially important in the elbow, where the ability to straighten all the way is easily lost.
- See if muscle strength is equal to that on the other side. Have player tighten the muscle against your resistance. Note pain and/or weakness.

Treatment:

- Rest, especially from the activity that created the injury in the first place
- Use ice to reduce soreness and inflammation
- See a physician, especially if symptoms persist or if there is a lack of full range of motion
- Once pain is gone and full motion is present, a throwing rehabilitation can start.

Source: The American Orthopaedic Society for Sports Medicine.

For information:
www.orthop.washington.edu