Provider Outlook

APRIL 2020

"MY ROTATOR CUFF IS TORN. WHAT DOES THAT MEAN?"

By: Jeffrey Belisle, M.D.

I am often asked, "Is my rotator cuff torn?" and/or, "What exactly is a torn rotator cuff?" Most people are surprised to learn how common this injury is in people over 60. Furthermore, many individuals have existing tears prior to the onset of pain and they often don't realize the injury is there.

As the name implies, the rotator cuff is a "sleeve" of tissue attached to the upper arm bone (humerus) and helps rotate the shoulder. Its location is under the larger muscles of the shoulder – the deltoid and pectoralis major. The "cuff" describes four muscles (supraspinatus, infraspinatus, teres minor and subscapularis) which originate at the shoulder blade (scapula) and attach to the top of the humerus via their associated tendons.

These muscles work together with the shoulder's bony anatomy and other shoulder muscles to perform a number of key functions. Two of the major functions include rotating the humerus relative to the shoulder joint and balancing the forces in the shoulder joint to help maintain proper joint alignment.

A tear in the rotator cuff is a disruption of the tissues where it attaches to the humerus. The majority of tears are seen when the supraspinatus tendon (one of the four tendons of the rotator cuff) is disrupted. However, given that the rotator cuff involves four tendons, tears can occur at multiple points in or around the rotator cuff insertion onto the humerus.

Rotator cuff tears occur for a number of reasons. The most obvious is from trauma such as a fall or an unexpected forceful shoulder movement. In addition, tears result from changes in tendon integrity over time such as increasing age, diabetes and/or smoking. In fact, imaging studies have demonstrated over 50% of individuals over the age of 60 years have tears and do not experience pain. Lastly, tears may arise from overuse - especially with overhead motion of the arm. For example, an athlete who is continuously throwing or hitting a ball overhead (i.e., pitcher, volleyball player, etc.) or a worker using heavy equipment at or above shoulder height.

A history of pain with the arm above the shoulder or weakness with raising the arm is often the first indication of rotator cuff-related issues. These complaints can arise gradually or after an incident (i.e., fall). People often describe pain at night or when they are trying to go to sleep. The location of their pain is often on the side and/or front of the shoulder.

A health care examination will demonstrate pain referred to the shoulder when testing the muscles of the rotator cuff or positions that stress the rotator cuff. In addition, individuals may exhibit overall shoulder weakness because of pain and/or weakness specific to the rotator cuff muscle(s).

Imaging of the shoulder can be helpful in the overall assessment of the shoulder. X-rays can demonstrate degenerative changes, broken bones or instability. Advance imaging, such as magnetic resonance imaging (MRI) is an excellent way to identify a tear. However, MRI should only be interpreted in the context of an individual's complaints and not in isolation due to the prevalence of painless tears.

For instance, an individual may have experienced a shoulder strain based on the mechanism of injury and/or situation, but an MRI may show a small tear that may have been present prior to the event. In such situations, it can be difficult to determine when the tear actually occurred. For instance, a 60-year-old woman may develop shoulder pain after a minor incident and be diagnosed with a shoulder strain. Over the course of six weeks with the appropriate treatment, her shoulder pain should resolve, yet an MRI may show a rotator cuff tear. In this situation, it may have been pre-existing based on her age. However, if that same individual fell and experienced immediate pain and weakness, the tear seen on MRI could be new or a worsened pre-existing tear.

One should seek medical attention as soon as possible after the following: an occupational-related event or trauma, persistent weakness of the shoulder, pain that has been ongoing for more than six weeks or pain that keeps an individual up at night.

ABOUT THE AUTHOR

JEFFREY BELISLE, M.D.
ORTHOPEDIC SURGEON

Dr. Jeffrey Belisle is a practicing orthopedic sports surgeon located in Tampa, FL. He has the privilege of caring for military health care beneficiaries in that area. He specializes in the treatment of shoulder, hip and knee injuries. He completed his orthopedic sports fellowship training at the University of Utah and his orthopedic residency training at San Antonio Military Medical Center. He has a medical degree (MD) from the University of Oklahoma College of Medicine, a master's degree in business administration (MBA) from Oklahoma City University, and a bachelor's degree of science (BS) from the United States Air Force Academy. Dr. Belisle was also deployed to Afghanistan in 2019 supporting U.S. and coalition service members.

Dr. Belisle is a Washington State Department of Labor and Industries approved provider, an authorized examiner for the Oregon Workers' Compensation Division, as well as an approved provider in Utah.