

# Are Shoulder Bursitis and Rotator Cuff Problems Separate

The list of things that can cause mechanical shoulder pain is long and getting longer. By mechanical we mean anatomic factors such as compression or degeneration. The term mechanical shoulder pain leaves out problems like infection, tumors, or other systemic causes.

One of the most common causes of mechanical shoulder pain is a problem labeled subacromial impingement syndrome or SIS. The term impingement tells us something is getting pinched. Subacromial impingement syndrome occurs when the rotator cuff tendons rub against the roof of the shoulder, the acromion.

Although SIS is one term, it actually represents a wide range of underlying pathologies. There could be a bursitis, rotator cuff tendinopathy, fracture, calcific tendinitis, or other change in the local anatomy contributing to the problem.

There are many factors that when present combine together to result in subacromial impingement syndrome. Aging with its many degenerative processes isn't always very kind to the shoulder. Bone spurs form, the rotator cuff and other soft tissues fray and wear thin, and trauma all add to the development of mechanical shoulder pain. Loss of blood supply to the area is another reason why these problems occur.

Subacromial impingement syndrome and rotator cuff degeneration go hand-in-hand together. Much debate and controversy exist over the connection between these two conditions. Which comes first? Does the impingement cause tearing of the rotator cuff? Or does the rotator cuff degenerate and weaken over time resulting in impingement?

Orthopedic surgeons have looked carefully for an exact source of external compression. They have tried removing different parts of the bone around the shoulder in an effort to stop acute bursitis and the impingement process. Studies have been done using cadavers (human bodies preserved after death) to try and solve the question of cause and effect. The effects of age and shape of the acromion have been examined as possible contributing factors.

There's been an effort to find outside (referred to as extrinsic) factors for the rotator cuff degeneration and subacromial impingement. Low blood supply to the supraspinatus tendon of the rotator cuff has been blamed for tendon degeneration. But some experts suggest just the opposite -- the impaired blood flow to the tendon may develop because the tendon has been damaged first.

What does all this mean for patients? Well, whenever possible, treatment should be based on the cause rather than the effect in order to correct the problem. No one wants to have surgery that doesn't work in the end because it didn't really address the root cause.

At the moment, there is agreement that more studies are needed to sort this all out. But in the meantime, patients should be directed first to a nonsurgical management of the shoulder problem. However, we run into another road block here because it's not clear what treatment works best. Currently the choices are steroid (antiinflammatory) or lidocaine (numbing agent) injection, Physical Therapy, chiropractic care, and other alternative approaches.

If the patient can find no pain relief with conservative care, then surgery may be needed. Here again, there is no simple answer to the question. "What's the best surgical approach?" Removing bone spurs or rough edges along the acromion is the general direction of surgical intervention.

Although the results are generally good, there are still some patients who end up needing further surgery. In some cases, the end of the acromion bone (including the bursa) is removed entirely. It's still not clear whether this type of decompression is required along with rotator cuff repair. Some surgeons choose to make some adjustments to the acromion by shaving bone off and/or repairing the rotator cuff without doing a full decompression.

In summary, the authors of this review of subacromial impingement syndrome suggest that the problem is really multifactorial. Each patient will have his or her own unique combination of reasons why they developed an impingement syndrome. Until high-quality research answers all the questions of what and why, it is suggested that nonsurgical management has good overall results and should be the way to go. Surgery can be equally successful in the hands of an experienced surgeon but should be reserved as the last resort.

Reference: Alicia K. Harrison, MD, and Evan L. Flatow, MD. Subacromial Impingement Syndrome. In Journal of the American Academy of Orthopaedic Surgery. November 2011. Vol. 19. No. 11. Pp. 701-708.