

Evidence Based Treatment for Shoulder Impingement

Can't raise your arm up overhead without pain? Only able to go so far without that old familiar shoulder pain showing up? Only able to move the arm out to the side or forward up to a certain point and then it hurts? Move it a little further and the pain goes away? What about pain at night when you lie on that side? If you answered yes to any of these questions, you may have a problem referred to as subacromial impingement syndrome (SIS).

In this condition, the soft tissues of the shoulder (e.g., rotator cuff, bursa) are getting pinched between the coracromial arch and the humeral tuberosity. The coracromial arch is the protective roof that is formed over the top of the shoulder.

It is made up of the acromion and the coracoid process (two separate parts of the shoulder blade) with the coracromial ligament between them. This structure is what keeps the shoulder from sliding up and out of the shoulder socket.

Many people suffer from subacromial impingement syndrome (SIS). Manual laborers are especially susceptible when they are engaged in repetitive motions overhead, handling heavy objects frequently, or exposed to hand-arm vibration. Starting from age 30 and on, many adults in all occupations are affected by subacromial impingement syndrome (SIS).

What's the most effective treatment for SIS? According to a recent systematic review of the literature, there is no evidence that surgical treatment is better than conservative (nonoperative) care. And when surgery is done, there is no evidence that one technique yields better results than any other.

Conservative care is less expensive with fewer complications, so why not try that first? If you don't get the results you were hoping for, surgery is still another option. And according to this same literature review, there is evidence to suggest arthroscopic decompression (taking pressure off those soft tissues getting caught under the acromion) is best done arthroscopically. Arthroscopic decompression is minimally invasive and patients seem to recover faster.

Just in case you are someone who likes the "proof" behind these recommendations, let's review what the systematic review showed in terms of evidence regarding treatment for SIS. The researchers conducting the review were from The Netherlands.

They used two independent individuals to review data for quality. Comparisons were made between different study groups (e.g., those who received conservative care, people who were in the control group, and patients who had surgery). Conservative care consisted of the use of antiinflammatory medications, patient education, and Physical Therapy.

Surgical groups included arthroscopic versus open techniques. Different surgical techniques were also compared (e.g., removing calcium deposits, use of laser versus electrocautery to remove tissue, effect of using platelet-leukocyte gel to support bone and tendon healing).

After analyzing the data in many different ways, the results still showed no difference in short-, mid- or long-term outcomes no matter how the problem was treated. There simply wasn't one treatment approach that was superior to all others. Individual studies showed the benefit of exercise for example. That piece of evidence combined with the knowledge that surgery is expensive and painful further supports the recommendation to continue with conservative care for subacromial impingement syndrome (SIS) until

further notice.

Reference: Lukas Gebremariam, MD, et al. Effectiveness of Surgical and Postsurgical Interventions for the Subacromial Impingement Syndrome: A Systematic Review. In Archives of Physical Medicine and Rehabilitation. November 2011. Vol. 92. No. 11. Pp. 1900-1913.