Sternoclavicular Joint Surgery

The sternoclavicular joint is the place where the collarbone meets the breastbone. Sternoclavicular joint instability is a rare problem, but it can be treated with surgery. Here's how.

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The sternoclavicular joint, also known as the SC joint, is a small joint where your collarbone (clavicle) connects to the breastbone (sternum). It helps with arm and shoulder movements. Under rare circumstances, this joint can be dislocated (come out of place). Dislocations of the SC joint are usually due to a high-force trauma, like a car accident or collision in contact sports. Adolescents and adults can also be at risk for dislocation if they have loose ligaments.

In many cases, mild frontward (anterior) dislocations can be treated at home with rest, a sling, and pain medication. Occasionally, the joint can be put back into place by a physician while the patient is under anesthesia. But if the joint remains unstable after this procedure, then surgery may be necessary.

Why treatment is required

If the joint cannot be put back into place, then surgery may be required to fix it. When the SC joint dislocates, it can go in two directions: to the front (anterior) or the back (posterior). Anterior dislocations can cause a painful bump, while posterior dislocations can cause more serious symptoms like trouble swallowing or shortness of breath. Surgery may also be required if the joint is repeatedly slipping out of place (called instability) or develops arthritis causing pain or other symptoms.

How treatment is performed

This surgery is known as sternoclavicular joint reconstruction. It is helpful to repair the often extensive damage to the ligaments that stabilize the SC joint. This surgery makes the SC joint stable by using a tendon graft, typically a hamstring allograft, which means it comes from a donor.

During the surgery, a small cut is made in the skin near the SC joint. Small holes are drilled into the breastbone and collarbone. Then, the tendon graft is passed through the drill holes in a figure-of-eight pattern to hold the two bones together securely. If the joint has developed arthritis, then a small amount of the arthritic bone will be removed from the end of the clavicle as part of the surgical procedure.

In some cases, the arthritis is painful yet the deformity is small. In these cases, the removal of the arthritic bone can be performed arthroscopically through two small holes at the SC joint.

Risks and benefits

There are relatively few risks with sternoclavicular joint reconstruction. Common risks include:

- Infection
- Stiffness
- Future dislocation
- Reaction to anesthesia

However, the major blood vessels directly behind the sternoclavicular joint are at risk of injury from the

surgical procedure. Therefore, the procedure needs to be performed in a hospital setting so that any potential injury to these blood vessels can be effectively treated.

In most cases, the benefits of having a stable SC joint often far outweigh the risks. Dr. Romeo always takes care to ensure that his patients are properly selected for this surgery.

Physical therapy protocols

For the first week following surgery, physical therapy consists of simple hand-squeezing exercises; active elbow and wrist movements; and supported pendulum exercises. These gentle exercises will continue for the duration that your arm is in the sling, which is typically six weeks. Once the sling is removed, strengthening exercises will be incorporated into your physical therapy program, including the use of exercise bands and light weights.

Pain control

A regional nerve block is administered using local anesthetic to "freeze" the area being operated on. The nerve block is long-lasting and works for approximately 12–18 hours after surgery. The anesthesiologist uses ultrasound guidance for the safe and effective placement of the medication for the nerve block.

As the nerve block gradually wears off, oral pain medications (pills or tablets) may be used to manage any discomfort. Dr. Romeo uses a variety of pain-control methods (multimodal analgesia), such as Tylenol Extra Strength (acetaminophen) and non-steroidal anti-inflammatory drugs such as Naprosyn (naproxen) or Mobic (meloxicam). Cold therapy or ice at the surgical site also helps reduce swelling, pain, and the need for medications. Dr. Romeo recommends using ice or cold therapy three to four times a day for 20 minutes.

Dr. Romeo provides each patient with specific instructions to manage any post-op pain, including enhanced recovery after surgery (ERAS) protocols. Dr. Romeo has managed thousands of surgeries and has detailed pain management plans for all of his patients. He is also committed to managing their pain responsibly to minimize the risk of opioid addiction.

"Recovery after this procedure typically takes six to nine months."

Recovery time

After surgery, you will return home wearing a sling that supports your arm to reduce the pain at the SC joint. After the sling is removed after six weeks, you may begin physical therapy with range-of-motion exercises.

Once you regain your range of motion, a progressive strengthening program can start. Patients can usually return to their normal activities six months after surgery and can expect to see continued improvement in range of motion and strength for up to twelve months after surgery. At this point, patients usually reach full recovery.

Results

Two out of three patients return to the same level of activity as before the onset of symptoms. Meanwhile, one in three patients will have some improvement after surgery but cannot use their shoulder at the same level of function as before the onset of symptoms.

FAQs

How is a sternoclavicular joint injury diagnosed?

In order to diagnose this condition, your doctor will review your medical history and symptoms, and conduct a physical examination. Imaging tests such as x-rays, CT scans, and MRIs are used to confirm the diagnosis.

Want to learn more? Find relevant videos, animations, and research material related to this procedure at **anthonyromeomd.com**. ➔

For more information about sternoclavicular joint surgery, please request an appointment with experienced Chicago orthopaedic surgeon Dr. Anthony Romeo.

Call our office today to schedule your visit. **331-777-9827**