Costovertebral Joint Sprain

The costovertebral joint is the articulation lying between the vertebrae and rib on the same level. It's one attachment point for the rib. It is important for normal breathing because the rib needs to swivel to some extent like that of a bucket handle moving from side to side, but can also raise up and down during breathing. Just like any other joint, the structures that make up this joint can be injured. Overstretching injury is the most common for the joint. When the rib cage and trunk are rotated or when an impact occurs, the joint can become injured.

Costovertebral Joint Sprain Anatomy

The upper back is known as the thoracic spine, and there are 12 vertebrae making up the thoracic spine. Each vertebrae is connected to a rib. The rib joints ranging from T1 to T12 in the upper part of the back are comprised of the costovertebral and costotransverse joints located in the back of the vertebrae. They provide you with stability to the chest wall and the upper back. Ligaments support the joints, which provide you with strength to the bone junctions and limit joint movement in the upper part of the back. It is these ligaments that can become sprained, along with the joint capsule.

Costovertebral joint sprain typically occurs in people who do a lot of twisting sports such as golf or swimming, especially if they are deconditioned, generally unfit or stiff in their back. A joint sprain can also occur from trauma for example in cases of contact sports like rugby or hockey. People with poor posture are more likely to be affected too, as the poor posture causes flexion (rounding) in the spine which puts strain through the rib joints.



Costovertebral Joint Sprain

In sports injuries, sometimes ligaments or cartilage that supports the joints get damaged.

How to Treat Costovertebral Joint Sprain:

1. Avoid Strenuous Activity

If you find that certain activities are causing you a great deal of pain, you need to stop doing them immediately. By avoiding the activities that are bothering you, the joint will have time to heal and minimize the swelling that has occurred.

2. Rest

Take some time to sit back and relax to allow the pain to subside. If the pain continues even with rest, you need to speak with a health care professional right away.

3. Anti-Inflammatory Medication

To help reduce swelling and alleviate pain, doctors will often provide you with an antiinflammatory medication. Using localized ice on the area is a more natural approach, but you can discuss this with your therapist.

4. Mobility Exercises

Once the inflammation and pain subsides, you can use gentle mobility exercises to maintain joint mobility and prevent stiffness. Exercises like side bends and gentle twisting movements are often recommended to help keep your mobility intact.

5. Acupuncture

Depending on your specific situation, you may need to undergo acupuncture to help reduce swelling and pain.

6. Soft Tissue Therapy

Depending on how severe your case is, you might need to undergo electrotherapy or mobilization therapy to address your soft tissue injuries.

7. Physical Therapy

In the early stages, improving mobility to the ribs and back will fix this problem. Sports massage therapists, osteopaths, physios, and chiropractors will all be able to help in this regard. In the majority of sports injuries, after inflammation and pain subsides, being able to regain your strength and return to your normal activities is important. A rehab program might be needed for the patient to regain all of their lost strength.

Tips:

- Avoid lifting heavy loads without imploring the proper techniques to do so.
- Living a sedentary lifestyle can lead to weak joints and muscles.
- Performing work activities involving continual sitting, lifting and bending all leave the individual susceptible to sprains.
- Poor and improper posture cause the joints and muscles in the back to deteriorate and become weak.
- Making sure you have a strong core will help make sure you don't have to worry about weak muscles in the back that lead to sprains and other injuries.