

## COSTOVERTEBRAL JOINT SPRAIN

### WHAT IS A COSTOVERTEBRAL JOINT SPRAIN?

A costovertebral joint (CVJ) sprain can be defined as an irritation, dysfunction, rotated or compressed joint at the location where the thoracic spine connects to the rib, known as the CVJ.

#### **ANATOMY FACTS:**

- 1. There are 12 thoracic vertebra;
- Each of these vertebra connect to the vertebra above and below via facet joints and the intervertebral disc, together known as the functional unit;
- 3. These joints allow for movement, support out upright posture and hold us together to protect vital organs;
- 4. Each of these vertebra connect to each rib via the CVJ which is encapsulated by strong connective tissue.

## CAUSES AND CONTRIBUTERS OF CVJ SPRAIN:

- Thoracic spine and rib hypo mobility;
- Sudden or poor bending, lifting and/or twisting movements.
- Often associated with poor breathing patterns leading to greater susceptibility;
- Inappropriate stretching without warming up e.g. overextending first thing in the morning.
- Poor posture
- Sedentary lifestyle



#### **DIAGNOSIS:**

A thorough subjective examination will look at the current history of the condition including aggravating and easing factors, mechanism of injury, previous pathologies, training regime and more.

The physiotherapist will check your range of motion, review posture, assess breathing patterns, palate for pain, stiffness and abnormally rotated joints amongst other specific tests.



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### **SIGNS AND SYMPTOMS:**

- Poor breathing patterns
- > Pain on deep breathing
- > Decreased range of motion
- > Tightness through the chest
- > Inability to stand upright
- Pain on coughing, sneezing, twisting and various movements

## PHYSIOTHERAPY TREATMENT OPTIONS:

- Deep tissue massage
- Thoracic and rib manipulation
- Foam roller exercises
- Stretches
- Muscle energy techniques

- Active release techniques
- Dry Needling
- Trunk strengthening
- Education
- Postural education and programs