

## OSTEOLYSIS

### **Overview**

The collar bone connects the scapula via the acromion process and coracoid process with the sternum. The collar bone or clavicle is attached to the acromion through the acromion clavicular ligaments and to the coracoid through the coracoid clavicular ligaments. The ligamentous connections allow small amounts of movement and supplies stability with which the person can elevate his arm above his head. For reasons that are not yet clearly understood, the lateral end of the clavicle can start losing calcium, become soft and disintegrates. This condition is known as lateral clavicle osteolysis but is more commonly known as weight lifters shoulder.

### **Causes**

It probably is related to single or repeated injury of the acromio clavicular joint. Repeated movement with heavy weights over head can contribute to this or a direct fall on the lateral side of the shoulder. Underlying conditions like infection, rheumatoid arthritis and other chronic conditions can also contribute to its development.

Lifting heavy weights above head height places large amounts of strain over the acromio clavicular joint and leads to micro trauma that is not allowed enough time to heal in-between sessions. This eventually leads to softening and dissolving of the bone in this area. There are studies that show that the bone tends to regenerate as the body tries to repair it, but eventually re-absorption of the lateral end of the clavicle takes place.

### **Symptoms**

It is a condition that develops slowly and starts with a dull ache over the acromion clavicular area, local tenderness and stiffness of the shoulder. These symptoms intensify over time. Pain is typically over the front and the upper part of the shoulder and intensifies during activity, especially lifting of weight above shoulder height, pushing of objects or throwing of objects. Two to 3 cm of bone loss can occur.

### **Classification**

It is classified according to the amount of bone involved, the specific anatomical structure involved as well as any associated pathology.

### **Treatment**

The aim of treatment is to reduce pain and consists of limitation of activities that exacerbates the condition. Adjustment of activities, rest, ice and anti-inflammatory medication are employed as first line treatment and can be followed by corticosteroid injection if inflammation continues. Smoking must be stopped to help remineralisation of bone. It can take many months for the bone to repair. If remmeralisation does not take place and pain continues, excision of the lateral clavicle is indicated.