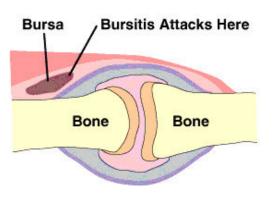


### <u>Anatomy</u>

The bursa is a fluid-filled sac that acts as a cushion between bones and muscles, skin, or tendons. It contains a lubricating fluid that allows these structures to glide smoothly. They are commonly located at points where muscles and tendons glide over bones. The Human body has approximately 160 bursae which can be superficial or deep. The most common bursae in the body are found in the elbow, shoulder, hip and knee joints and often become the source of pain associated with this condition.



### <u>Bursitis</u>

Bursitis is defined as an inflammation or irritation of a bursa. The bursa loses its gliding capabilities, and becomes more and more irritated when it is moved. Bursitis usually results from a repetitive movement or due to prolonged and excessive pressure. Bursitis has also been shown to proceed after direct trauma to a joint or as a result of a systemic inflammatory condition (i.e.: infection, septic arthritis).

#### Signs and Symptoms

- Localized tenderness in the acute stage: If the affected joint is close to the skin (shoulder, knee, elbow, or Achilles tendon) swelling and redness are seen and the area may feel warm to the touch.
- Decreased joint range of movement
- Pain with movement of overlying muscles and tendons
- History of inflammatory disease (e.g. rheumatoid arthritis, systemic lupus erythematosus)

## **Physiotherapy Management**

Prior to managing this condition, it is important for your physiotherapist to exclude any other joint or soft tissue injury.

Initial physiotherapy treatment focuses on reducing pain and inflammation with advice regarding;

*Rest*- Avoid aggravating activity to encourage healing and prevent further injury. *Ice*- Decrease tissue metabolism and reduce inflammation and pain

Bracing- To protect the bursa and reduce friction of the tendon during its use.

*Electrotherapeutic modalities-* To promote scar tissue formation in the early stages of rehabilitation.

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Once scar tissue has been formed,

- Gentle stretching exercises and soft tissue mobilizations will allow lengthening.
- Strengthening the injured tissue under tensile load will improve its integrity.
- Joint stability and motor retraining exercises will correct biomechanical deficits to allow safe return to sport and activity.

When bursitis does not respond to conservative treatment, an injection into the joint may bring immediate and lasting relief. Usually one injection is all that is needed.

In very rare cases, if there is still no improvement after 6–12 months, arthroscopic or open surgery may be necessary to repair damage and relieve pressure on the tendons and bursae.

# **Prevention**

To help prevent inflammation or reduce the severity of its recurrence:

- Warm up or stretch before physical activity.
- Strengthen muscles around the joint.
- Take breaks from repetitive tasks often.
- Cushion the affected joint (e.g.; Use foam for kneeling or elbow pads, Increase the gripping surface of tools with gloves or padding, well-fitting padded shoes for the heels, apply grip tape or an oversized grip to golf clubs.)

## **References**

*National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)* NIH Publication No. 07–6240 April 2007

Chang, Eileen MD and associates, **Bursitis**, May 31st, 2006, *E- Medicine* at <u>http://www.emedicine.com/emerg/TOPIC74.HTM#section~Treatment.</u>

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