

### What Is Bursitis?

A bursa is a small fluid filled sac that acts to reduce friction within a joint. It prevents tendons and muscles from rubbing against bone and allows for more fluid movements. Bursae are found in the wrists, elbows, shoulders, hips, knees, and feet. Tendons in these areas may become rough and thickened due to overuse, which can cause friction and irritation of the bursa (Figure 1). This results in swelling and inflammation, leading to pain and a decrease in range of motion known as bursitis.

### Ergonomic Risk Factors Contributing to Bursitis



#### FORCE

- Forceful exertions (i.e. lifting, carrying, gripping, etc.)
- Contact stress
- Mechanical stress



#### POSTURE

- Awkward postures (ex. kneeling or working with arms above shoulder level)
- Static postures



#### INADEQUATE RECOVERY TIME

- Similar muscle actions performed multiple times in a short period
- Sustained muscle contractions without enough rest



#### COMBINATION EFFECT

- Many or all of the risk factors act in synergy to increase the risk of bursitis

### Specific Recommendations for Prevention

- Avoid contact stresses where possible (kneeling, leaning, hand tool grips)
- Take regular breaks
- For kneeling tasks, use kneeling pads when possible
- Avoid above shoulder level work

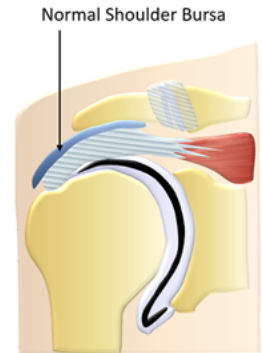
For industry/workplace specific recommendations contact an OHCOW Ergonomist.

### Additional Resources

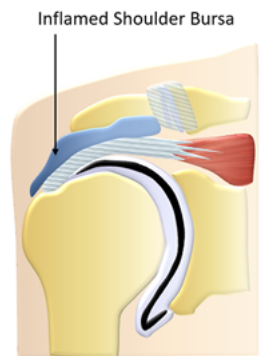
[Canadian Centre for Occupational Health and Safety \(CCOHS\) Fact Sheet](#)

[MSD Prevention Guideline for Ontario](#)

[World Health Organization - Musculoskeletal Health](#)



Normal Shoulder Bursa



Inflamed Shoulder Bursa

**FIGURE 1:** (Top) Normal shoulder joint. (Bottom) Shoulder joint with bursitis, showing swollen and inflamed bursa.