

## Surgical Management of Bursitis: Strategies, Procedures, and Clinical Results

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### DESCRIPTION

Bursitis is a common orthopedic condition characterized by inflammation of the bursae, small fluid-filled sacs located near joints that act as cushions between bones, tendons, and muscles. Despite its prevalence, bursitis can cause significant pain, swelling, and functional impairment, impacting the quality of life of affected individuals. In this study discusses about the intricacies of bursitis, exploring its causes, clinical presentation, diagnostic approach, treatment modalities, and strategies for prevention and management.

### Causes and risk factors

Bursitis can result from a variety of causes, including repetitive motion or overuse, traumatic injury, prolonged pressure, infection, or underlying inflammatory conditions such as rheumatoid arthritis, gout, or systemic lupus erythematosus. Occupations or activities that involve repetitive movements or prolonged kneeling, leaning, or overhead motions increase the risk of developing bursitis. Additionally, sudden trauma or direct blows to a joint can lead to acute bursal inflammation, while infections can cause infectious bursitis, characterized by purulent fluid accumulation within the bursa.

Bursitis arises from the inflammation of the bursae, which are synovial-lined sacs filled with fluid that reduce friction and provide cushioning at sites of repetitive motion or pressure near joints. These sacs can become irritated or inflamed due to repetitive activities, trauma, infection, or underlying inflammatory conditions, leading to the development of bursitis. While bursitis can affect any bursa in the body, certain sites are more commonly involved, including the shoulder, elbow, hip, and knee.

### Clinical presentation and diagnosis

The clinical presentation of bursitis typically includes localized pain, tenderness, swelling, and limited range of motion in the affected joint. Patients may experience exacerbation of symptoms with movement or pressure over the affected bursa, along with warmth and erythema in cases of infectious bursitis. Diagnosis is primarily clinical, based on history and physical examination

findings, including assessment of tenderness, swelling, and range of motion. Imaging studies such as ultrasound, MRI, or occasionally, aspiration of bursal fluid for analysis may be utilized to confirm the diagnosis and rule out other potential causes of joint pain and swelling.

### Treatment modalities

The management of bursitis aims to alleviate pain and inflammation, promote rest and activity modification, and address underlying contributing factors. Initial treatment often includes the use of conservative measures such as Rest, Ice, Compression, and Elevation (RICE therapy) to reduce pain and swelling. Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) may be prescribed to alleviate pain and inflammation, while corticosteroid injections may provide targeted relief for cases refractory to conservative measures, delivering potent anti-inflammatory effects directly to the affected bursa.

### Physical therapy and rehabilitation

Physical therapy plays a important role in the management of bursitis, focusing on restoring joint mobility, strength, and function, as well as addressing biomechanical imbalances and ergonomic factors that contribute to bursal inflammation. Rehabilitation exercises, including stretching, strengthening, and range of motion exercises, are tailored to the individual patient's needs and may incorporate modalities such as ultrasound, heat therapy, or electrical stimulation to enhance healing and alleviate pain.

### Surgical intervention

Surgical intervention for bursitis is rarely necessary and reserved for cases refractory to conservative management or those complicated by chronic or recurrent bursal inflammation, bursal cyst formation, or structural abnormalities requiring correction. Surgical options may include bursectomy, which involves the surgical removal of the inflamed bursa, or bursectomy with tendon release for cases of concomitant tendonitis or impingement syndrome. Arthroscopic techniques offer minimally invasive alternatives to traditional open surgery, allowing for smaller incisions, reduced postoperative pain, and faster recovery times.

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## Prevention and management strategies

Prevention strategies for bursitis focus on avoiding repetitive activities or positions that place undue stress on the joints, practicing proper body mechanics and ergonomics, and incorporating regular stretching and strengthening exercises into daily routines to maintain joint flexibility and function. Additionally, protective equipment such as knee pads or elbow pads may be utilized to reduce the risk of traumatic injury in high-risk occupations or sports activities.

Bursitis is a common orthopedic condition characterized by inflammation of the bursae near joints, leading to pain, swelling,

and functional impairment. While bursitis can result from a variety of causes, including repetitive motion, trauma, infection, or underlying inflammatory conditions, its management typically involves a combination of conservative measures such as rest, ice, NSAIDs, and corticosteroid injections, along with physical therapy and rehabilitation exercises. Surgical intervention is reserved for refractory cases or those complicated by chronic or recurrent bursal inflammation. By understanding the causes, clinical presentation, diagnostic approach, and treatment modalities for bursitis, healthcare providers can effectively manage this condition and improve the quality of life of affected individuals.