Research – Bursitis: Evidence Based Treatments

Brief	Evidence based treatments for ***Bursitis.***
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The Research Team are unable to ensure that the information listed below provides an accurate & up-to-date snapshot of these matters.

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2 Summary

- Bursitis can often be treated at home, especially if the patient can avoid the activity that might have triggered it
- Most patients respond to nonsurgical management, including ice, activity modification, and nonsteroidal anti-inflammatory drugs
- Treatment will depend on the cause of the bursitis, and aims to relieve the symptoms as much as possible while the healing process takes place
- When a bursa is infected, it is known as "septic bursitis". When not infected it is known as "aseptic bursitis"
- There are four types of bursa each requiring different treatment
- Depending on the type and severity of the bursa, anti-inflammatory medications or injections of corticosteroids may be required, and surgical excision (a definitive option) of the bursal sac may be necessary.

3 What is Bursitis?

Bursitis is an inflammation or irritation of the small, fluid-filled 'cushions' that protect a tendon where it touches a bone. These cushions are called bursae (or bursa (singular) if there's just one).

Muscles in our bodies are connected to the bones via strong white fibrous cords called tendons. Wherever these tendons cross bones and joints, the body creates a small cushion filled with fluid, which is known as a bursa.

When a bursa becomes irritated or inflamed, it swells with fluid and the swelling can be painful and restrict movement [1].

Bursitis must be distinguished from arthritis, fracture, tendinitis, and nerve pathology [2].

When a bursa is infected, it is called septic bursitis. Septic bursitis typically affects bursae located at the knee and elbow joints. Unlike aseptic (non-infectious) bursitis, septic bursitis is a potentially serious medical condition and prompt medical attention is advisable [3].

4 Symptoms of Bursitis

Joint pain can be experienced when the patient moves and is often the first symptom of bursitis. The area may also have swelling, feel warm or look red. As bursitis progresses, the patient might even feel pain when at rest.

The swollen bursa can make the joint stiff and its movement might be restricted [1].

5 Causes of Bursitis

Bursitis is commonly caused by overuse of a joint, especially by doing repetitive movements. The movements might be through work, such as kneeling to clean or garden, or through sport, such as playing tennis.

Bursitis can also be caused by an injury to the joint, and by conditions that cause swelling such as gout and rheumatoid arthritis. It is most common in the knee and shoulder, but also occurs in the hip, elbow, wrist, ankle and heel [1].

6 Types of Bursitis

The Common types of bursitis include [2]:

- Pre-patellar
- Olecranon
- Trochanteric
- Retro-calcaneal

7 Treatment and Management

7.1 Overview

Bursitis can often be treated at home, especially if the patient can avoid the activity that might have triggered it [1].

Treatment will depend on the cause of the bursitis, and aims to relieve the symptoms as much as possible while the healing process takes place. Treatment options may include [4]:

- Pain-relieving medications
- Cold packs
- Gentle mobilising exercises and rest
- Anti-inflammatory medications or injections of corticosteroids may be used in cases of severe pain

Most patients respond to nonsurgical management, including ice, activity modification, and nonsteroidal anti-inflammatory drugs [2].

If infection is present, as well as pain and swelling of the affected area, other symptoms may develop, such as a raised temperature. Treatment with an appropriate antibiotic is necessary [4].

If the bursitis was triggered by a particular form of overuse, it‘s important to avoid that activity, or modify how you perform that activity. An occupational therapist can help you find solutions to this problem [4].

7.2 Pre-patellar Bursitis

Bursitis arises from many inflammatory phenomena, but infection is the primary concern. Approximately 80% of cases of septic pre-patellar bursitis are caused by Staphylococcus aureus.

Local corticosteroid injection may be used in the management of pre-patellar bursitis.

Management of septic pre-patellar bursitis is controversial. Recommendations range from oral antibiotics alone to surgical excision of the bursal sac. The primary decision in developing a treatment algorithm is whether to initiate nonsurgical or surgical management. Most patients respond to nonsurgical treatment. Surgery is a definitive option that is associated with complications. Management of aseptic pre-patellar bursitis typically consists of rest, compression, and nonsteroidal anti-inflammatory drugs (NSAIDs). It may also include local corticosteroid injection [2, 5].

7.3 Olecranon Bursitis

Olecranon bursitis is the most common superficial bursitis [2, 6]. Fluid collection within and inflammation around the bursa are caused by traumatic, inflammatory, and infectious processes. Olecranon bursitis is typically non-infectious in origin; septic bursitis accounts for approximately 20% of all acute cases [2, 7].

Management of olecranon bursitis is dictated by its aetiology. Acute traumatic or idiopathic olecranon bursitis typically resolves with nonsurgical management. Ice, compressive dressings, and avoidance of aggravating activity are sufficient in most patients [2, 8]. When a patient does not improve as expected, aspiration should be performed to rule out infection. Alternatively, in the patient in whom fluid collection is bothersome at presentation, aspiration with or without concurrent corticosteroid injection may be done [2, 9]. In a study of 47 patients with traumatic bursitis who underwent aspiration, 90% recovered in 6 months [2, 10]. Intrabursal corticosteroid injection is associated with complications, including infection, skin atrophy, and chronic pain [2, 10].

7.4 Trochanteric Bursitis

Patients with trochanteric bursitis typically present with lateral hip pain, which may radiate to the buttock, groin, or low back. Symptoms may be exacerbated by ambulation, walking uphill, stair climbing, and rising from a seated position [2].

Initial management consists of physical therapy and oral NSAIDs. If symptoms persist, local glucocorticoid injection is performed [2, 11, 12]. Most patients respond to nonsurgical management [2].

7.5 Retrocalcaneal Bursitis

Inflammation of the retrocalcaneal bursa can limit function and cause pain. The Achilles tendon and its bony insertion may be involved in severe cases. This spectrum of disease has been given many names, including Haglund syndrome, Albert disease, calcaneus altus, pump bump, winter heel, and achillodynia [13].

Management of these causes of posterior heel pain begins with ice, activity modification, NSAIDs, and orthoses. Shoe wear modification to prevent irritation of the posterior heel by the shoe counter should be considered, as well. Manoeuvres that stretch the local Achilles tendon may aid in attenuating the symptoms [2].

Surgical intervention is warranted for retrocalcaneal bursitis that does not resolve with nonsurgical management. Accurate clinical diagnosis guides surgical management. For refractory cases associated with Haglund deformity, open procedures include resection of the calcaneal prominence proximal to the Achilles insertion, debridement of Achilles tendinopathy, and complete excision of the retrocalcaneal bursa [14-16]. Alternatively, dorsal closing wedge osteotomy may be considered to rotate the posterior calcaneus to a lesser prominence [17]. Complications of open procedures include skin breakdown, Achilles tendon avulsion, altered sensation, and painful scar formation [2, 13, 18].

8 References

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