

Common Sports-Related Finger Injuries

By Sheila Yakobina, OTR/CHT and Stephanie Yakobina, OTR/CHT

Finger injuries frequently occur during football, basketball, baseball, volleyball, and wrestling.

X-rays should be obtained for most finger injuries to rule out the possibility of a fracture and the principles of RICE (Rest, Ice, Compression, and Elevation) should be followed until a physician has confirmed the diagnosis.

Following are brief descriptions of the most common finger injuries and their recommended treatments. Familiarity with these potential injuries can help athletic trainers, physicians, coaches and therapists ensure the best possible outcome for athletes, while minimizing time spent on the sidelines.

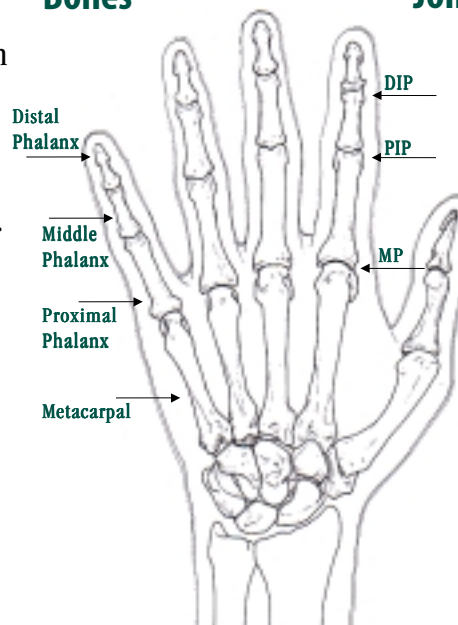
PIP Joint Dislocations

The two most common types of PIP joint dislocations are the volar (palmar) dislocation and the dorsal dislocation. Dorsal dislocations are seen much more frequently and tend to be more stable once they have been reduced.

A dorsal PIP joint dislocation occurs when the middle phalanx slides on top of the proximal phalanx resulting in a tear of the volar plate. The volar plate is a ligament on the palmar aspect of the PIP joint which most often heals

without any surgical intervention. This injury is characterized by pain and swelling at the PIP joint and an obvious malalignment of the finger. Frequently, it's reduced on the field by the player, athletic trainer, and/or

Bones Joints



team physician. If the dislocation cannot be reduced, the player must seek medical attention. Treatment involves an extension blocking splint that is worn for 3-5 days with the PIP joint held in 35 degrees of flexion. The athlete can return to play with buddy taping to the adjacent finger.

The volar PIP joint dislocation is described as a dislocation of the middle phalanx on the proximal phalanx. It is characterized by pain and swelling localized to the PIP joint and an obvious malalignment of the finger. A volar dislocation should be taken much more seriously than its dorsal counterpart. If initial attempts to reduce the dislocation are unsuccessful, no further attempts should be made as the finger may require surgical intervention. The reason that this injury cannot be reduced is that the head of the proximal phalanx frequently "buttonholes" through the extensor tendon causing a disruption of the extensor mechanism. If this occurs, surgical intervention is necessary to reduce the joint and repair the extensor tendon. The athlete's finger must then be splinted in full extension for 6 weeks. Fortunately, the athlete can return to play within 1-2 weeks with a sugartong splint protecting the DIP and PIP joints if symptoms permit.

Mallet Finger

Mallet finger is usually caused by jamming the finger against a hard

surface such as a helmet, ball, or piece of equipment. It involves the rupture of the insertion of the extensor tendon into the distal phalanx and occasionally results in an avulsion fracture of the distal phalanx. The athlete presents with tenderness and swelling of the DIP joint and an inability to extend their fingertip. Treatment involves splinting the fingertip in slight hyperextension in order to allow the tendon ends to reattach. The athlete must wear the splint 24 hours a day for a period of eight weeks to ensure full recovery. The athlete can return to full practice with the use of a finger splint.

Jersey Finger

Jersey finger usually occurs as a result of a player grabbing another player's jersey and getting his finger caught. It involves the rupture of the long finger flexor tendon to the fingertip. The athlete presents with swelling and discomfort of the DIP joint, and the inability to flex the fingertip. Unlike the mallet finger, jersey finger must be treated surgically within 7-10 days and requires extensive postoperative therapy. After the surgery, the athlete will be required to wear a wrist and finger immobilization splint for a period of 4-6 weeks. A formal therapy program is recommended for 8-12 weeks to ensure maximum recovery. The athlete cannot return to play until 10-12 weeks following their surgery.

For more information, please contact the Hand Therapy Department at 906-225-3186.

Managing Lower Back Pain

By Megan Colombe, Physical Therapy Assistant

Lower back pain is common in athletes, and statistics show that 60-90 percent of us will experience back pain in our lifetimes. In fact, lower back pain is second only to the common cold as the leading cause of primary care office visits.

Recent studies suggest that back pain is typically recurrent and that chronic back pain occurs more frequently than previously believed. This may represent a failure to restore proper functioning and highlights the need for appropriate rehabilitation.

Pain results from mechanical or chemical irritation of nerve fibers in the lower back. Back pain cannot be thought of as purely an anatomic or biomedical problem because psychological factors also play a role in the onset of back pain and the transition from acute to chronic pain and disability. Depression, anxiety and distress have been closely linked to pain and disability.

It is important that athletes know and practice the fundamental mechanics of lifting, proper posture and body mechanics, and learn to control pain and inflammation.

Remember the **5 L's** of lifting:

- **Load** - the weight to be hoisted should be appropriate for the task and for the individual.
- **Lever** - keep the object as

close to the body as possible.

- **Lordosis** - maintain a normal anatomic lordotic curve while lifting.
- **Legs** - use the muscles in your legs to lift to alleviate stress from your back.
- **Lungs** - exhale during the actual lift.

To control pain and inflammation, nonsteroidal antiinflammatory drugs, such as ibuprofen, can be used to reduce swelling.

Therapeutic heat, cold and electrical stimulation can also be used to control symptoms.

Following a back injury, initial exercise should be directed away from the movement that aggravates symptoms. For athletes with acute or recurrent lower back pain, a combination of flexion and extension exercises can be started.

A total body conditioning program should follow as pain decreases. Overall strength, flexibility, aerobic fitness, weight management, exercises and neutral spine stabilization exercises should be emphasized. As pain resolves and rehabilitation advances, the athlete is gradually introduced to sport activities. Implementing a long-term maintenance program is key in preventing the reoccurrence of lower back pain.

