

### What is a mallet finger?

This is a deformity of the finger as result of the rupture of the extensor tendon at the level of the distal interphalangeal joint (Figure 1). This happens when the extended finger is abruptly forced into flexion, such as when a ball hits the tip of the finger or a straightened finger hits a hard surface. Occasionally the force of the injury results in the tendon pulling off a piece of bone resulting in a fracture (Figure 2), this is called a bony mallet injury.

Figure 1

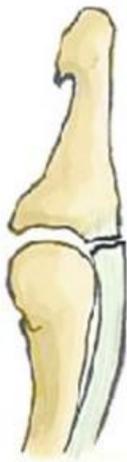


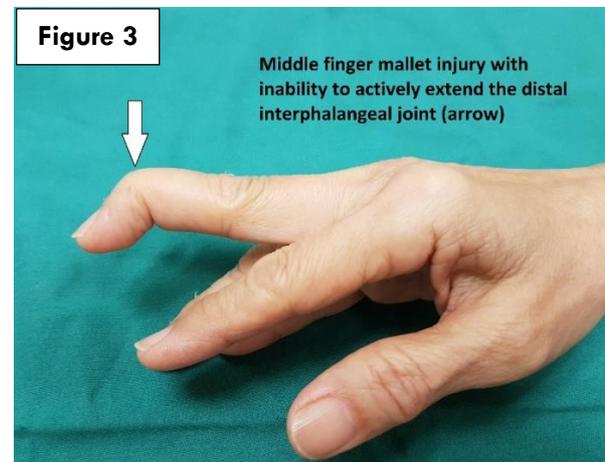
Figure 2



### What are the symptoms?

There is usually pain at the moment of injury, but most noticeably, the finger droops at the last joint (Figure 3) and the fingertip cannot be extended actively. Initially there may be tenderness at the distal interphalangeal joint, swelling and occasionally bruising. These symptoms improve over several days to a week with the exception of the ability to extend the fingertip.

Figure 3



### How is it diagnosed?

The history of injury and physical appearance makes this diagnosis usually self-evident. Your hand surgeon will perform an examination to exclude other injuries and order a finger x-ray to rule out an associated fracture (this occurs in 10-20% of mallet injuries).

### How are they treated?

Majority of mallet finger injuries can be treated non surgically if presented early to the hand specialist. Almost all soft tissue mallet injuries can be treated successfully if



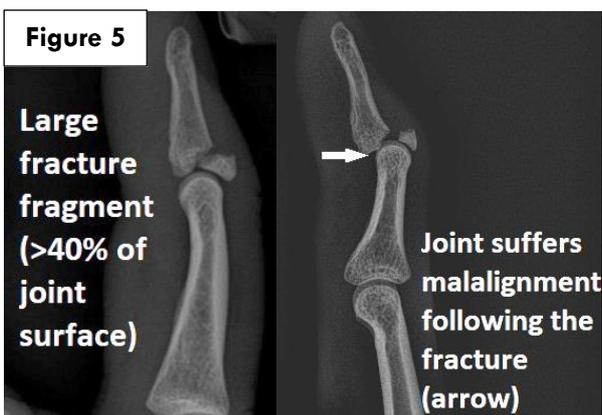
seen within a week or two of the injury and an extension splint is applied (Figure 4). Chronic presentations respond less well to splint immobilization. Even bony mallet injuries may be treated in this fashion.



**Figure 4**

### When is surgery required?

Your hand surgeon may advise surgery if you have a fracture with a large fragment (Figure 5) or when the joint is subluxated (alignment is altered) (Figure 5). The dual purpose is to prevent arthritis and to more predictably restore motion.



**Figure 5**

Your hand surgeon will have a variety of strategies to solve the problem if surgery for a fracture is required. This may involve the use of stainless-steel wires (Figure 6), micro-

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screws (Figure 6) or even mini plates. If you have a chronic soft tissue mallet that has not improved with splinting, soft tissue reconstruction can correct the deformity.



**Figure 6**

### What kind of results can I expect?

Soft tissue mallet finger injuries when recognized and treated soon or early after injury typically achieve good outcomes. There is a period of six weeks or more when compliance with splint wear is mandatory, after which, gradual mobilization exercises are initiated. Most patients recover close to ninety percent of their mobility. Fractures undergoing surgical treatment can expect to enjoy the same results. Soft tissue reconstructions if indicated appropriately are effective in correcting significant deformity. In late presentations where the deformity is fixed or when painful arthritis has set in, you may be advised for a joint fusion.