

Mallet Finger

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Mallet finger is a condition caused by disruption of the tendon (extensor mechanism) of the finger joint at the base of the fingernail. The joint involved is known as the DIP joint (Distal interphalangeal joint). The tendon that extends the tip of the finger can be disrupted in two ways, either the tendon or the bone where the tendon inserts. If the problem is in the tendon, it is called a tendinous mallet finger. If the problem is caused by a fracture, then it is called a bony mallet fracture. The Anatomy section

can show the tendon injury area.

The problem with a mallet deformity is that many patients neglect them as a "sprained finger". The specific difference between a sprain and a mallet finger is the latter is associated with a rupture of the tendon that extends the tip or DIP joint. With the tendon rupture the first thing to happen is that you cannot actively extend the finger. One of the classic findings is the ability to passively extend the joint, but a loss of active extension. Furthermore, you can find tenderness over the back of the joint.

On the positive side, surgery is not needed and has shown in some cases to afford a worse result. On the negative side, the treatment is full time splinting, keeping the finger completely straight at the DIP joint but encouraging flexion of the remainder of the finger. This helps maintain flexibility of the other joints.

On the negative side, the splint needs to be worn 24/7 often for 6 weeks; if you take the splint off, the clock resets for another 6 weeks. There are many splints on the market, but I have found the best way is an aluminum splint to keep the tip joint straight. Specifically, the tip of the finger should be kept straight but to allow free PIP and MP motions. The splint can be changed by the therapist, but the finger needs to be maintained in an extended position. If the finger drops to a flexed position, the clock "resets" for another six weeks. With this protocol, 70% of people heal with six weeks of immobilization, and approximately 25% more heal with 6 more weeks of immobilization; surgery is an option but in most cases is not necessary. Unfortunately, most people do permanently lose some motion, but functionally, it is not usually problematic.

If any skin irritation occurs, call our office immediately so we can check the finger. We will also have the therapist check the finger, splint and skin to assure that no problem occurs. Our goal is



a full restoration of motion, but honestly most patients do lose some motion permanently. By participating in the splint and therapy program, we can usually maximize function.

Once we start motion

It is very important that you understand the concept of PROGRESSIVE MOBILIZATION once you are released to begin moving the finger. This generally begins 6 weeks after full time splinting. We want to SLOWLY start motion and SLOWLY increase the motion, not go for broke right away. The first week, just remove your splint and wiggle the joint a little, about 10 degrees. Do this about five times a day, wearing the splint the rest of the time except for some periods while you are at rest, such as watching TV. Wear it at night. The second week double the motion to about 20 degrees, and take the splint off a bit more, but wear it while sleeping, and while active (when you might bump your finger). The third week you can move it more and wear the splint less, even taking it off at night. Wear it when you are active. The fourth week, you can move it a lot and keep the splint off except when you are active. After that week, you can take it off all the time, but avoid trauma for several more months and use it during strenuous activities.

BEWARE: if you develop a lag (cannot fully straighten the finger), put the splint back on and stop the movement exercises. Give me a call. I expect about a 5-degree lag in most cases, but it should not increase with time. If so, it may mean that you are stretching out the healing tendon. I want to talk to you and probably will need to see you to assess the situation.

This program of gradually increasing motion helps to strengthen the tendon as it limbers up the joint, which will be quite stiff from our treatment. Most patients recover a great, functional range of motion with only a slight lag.

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