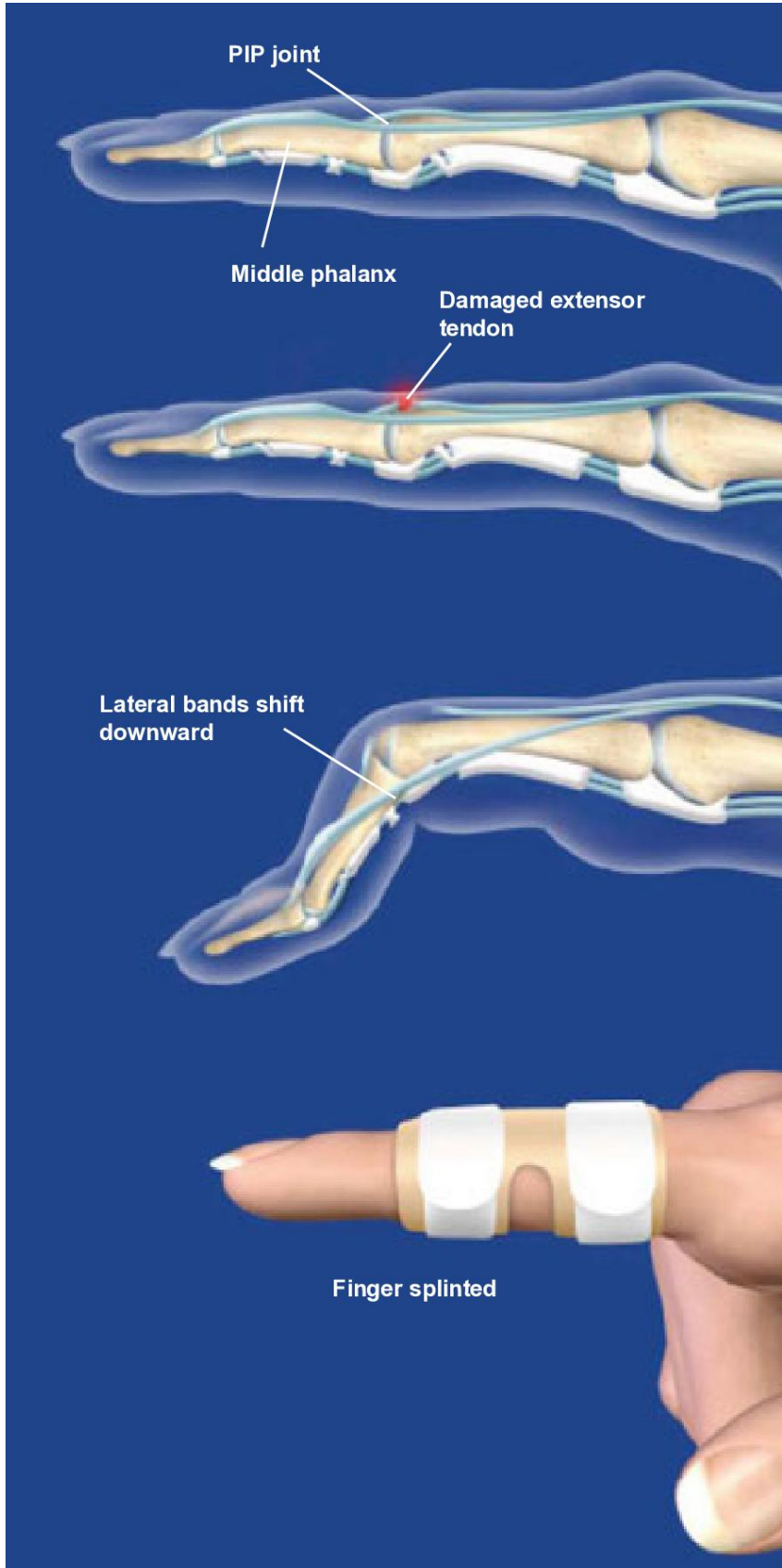




Boutonniere Deformity



Overview

This condition is a characteristic deformity of the finger in which the finger's middle joint, called the PIP joint, bends downward and the finger's end joint, called the DIP joint, hyperextends.

Causes

This condition is caused by an injury to the finger's extensor tendon, called the central slip. The central slip runs along the back of the finger and attaches to the middle phalanx at the PIP joint. This tendon is most often injured when an extended finger is forcefully flexed or dislocated toward the palm side of the hand, or by a laceration on the back of the finger near the PIP joint. The condition can also result from inflammatory arthritis or osteoarthritis, which can cause the tissues that stabilize the extensor mechanism to weaken and stretch.

Mechanism of Deformity

When a central slip injury is not treated quickly and properly, the tissue stabilizing the accessory extensor tendons, called the lateral bands, can gradually weaken and allow the lateral bands to shift downward. This shift results in an imbalance in the forces that control the PIP and DIP joints, causing the finger to bend into a boutonniere deformity.

Symptoms

Common symptoms of acute central slip injury include swelling and tenderness over the top of the finger's middle joint. In severe injuries, or in injuries that are not treated quickly, the finger may bend into the characteristic boutonniere position. In an acute deformity, the PIP joint cannot be straightened on its own, but can be straightened using the other hand. In chronic deformity, the joint may become stiff and fixed in this bent position and is unable to be straightened even when using force.

Treatment

Treatment options may include a splint and hand therapy. For lacerations, severe joint dislocations, or chronic deformity, surgery is often required.