

Hammer Toe Treatment Guidelines Handout

Hammertoe deformities can be extremely painful and can have a significant impact on a person's quality of life. Surgical correction of hammertoe deformities is therefore among the most commonly performed surgical procedures performed on the forefoot.

Non-surgical treatments

Before the surgical route is considered, conservative treatments are usually attempted. These treatments are concerned with relieving pressure dorsally over the involved PIPJ, planarly to its metatarsal head as well as relieving the pressure to the tip of the involved toe. Here are some non-surgical options for hammertoe (Goransson & Constant, 2021; Orthoin, n.d.):

- **Insoles or orthotics**

For minor digit deformities, it is advisable for the patient to start wearing insoles or orthotics, along with shoes featuring a wide toe box. This will accommodate the deformities and reduce the pain caused by impingement of the digits.

- **Padding or periodic shaving**

Padding or periodically shaving painful calluses can alleviate some discomfort for the patient. Additionally, strapping or taping flexible deformities may improve alignment. While these modifications can be beneficial for managing forefoot disorders, they do not offer permanent solutions to the deformity.

- **Change in footwear**

Wearing shoes with a lower heel height and a wider toe box can also help alleviate pressure on the toes. This change in footwear can help reduce pain and prevent further progression of the deformity.

- **Physical therapy**

Physical therapy may be recommended to stretch and strengthen the muscles in the foot, helping to improve alignment and function. It can also assist in reducing inflammation and pain caused by overuse or compensating for deformities.

- **Exercises**

Specific exercises can also be prescribed to help improve the flexibility and strength of the toes. These exercises may include toe curls, toe spreads, and towel scrunches.

Over-the-counter remedies

Over-the-counter remedies such as toe spacers, splints, and cushions may provide temporary relief for patients with mild deformities. However, they do not address the underlying cause of the deformity and should not be relied upon as a long-term solution.

Surgical treatments

Treatments must comprehensively evaluate and address deformities in all joints of the affected digit (Goransson & Constant, 2021):

- **Proximal interphalangeal (PIP) joint resection arthroplasty**

PIPJ resection arthroplasty is a popular technique used to treat hammertoe deformities. This procedure involves removing or shortening the base of the affected toe's middle phalanx and releasing contractures in surrounding soft tissues. The goal of this procedure is to realign the PIPJ by allowing the contracted flexor tendons to extend.

- **Fusion**

Fusion procedures are used if non-surgical treatments have failed or when there is significant degenerative joint disease present in the involved digit. During fusion, the bones of the affected joint are permanently connected, eliminating motion between them and thus reducing pain and instability.

- **PIPJ arthrodesis**

The fusion of the PIPJ is a highly effective procedure for addressing most digit deformities. It involves removing the damaged joint surfaces and connecting the bones with screws, plates or wires. This procedure relieves pain by stabilizing the joint and preventing further deformity.

- **Tendon transfer**

Tendon transfer procedures are often used to address flexor tendon dysfunction that causes digit contractures. During this surgery, the tendon responsible for pulling down the toe is transferred to another location on the foot, allowing it to pull up instead. This helps correct deformities and improve function.

- **Joint replacement**

Joint replacement may be necessary in cases of severe degenerative joint disease or failed previous surgeries. This procedure involves removing damaged joint surfaces and replacing them with artificial joints made of metal, plastic, or silicone.

- **Tenotomy**

Tenotomy is a minimally invasive procedure that involves making small incisions to release tight or contracted tendons in the toe. This can help improve range of motion and correct deformities caused by tendon imbalances.

- **Weil osteotomy**

A distal oblique osteotomy, which shortens the metatarsal, is commonly performed to address hammertoes or claw toes. This procedure is frequently used to correct digit dislocations and angular deformities.

- **Plantar plate repair**

Commonly performed alongside a Weil osteotomy, this procedure typically uses a dorsal approach to repair the injured or ruptured plantar plate with sutures.

References

Coran, M., & Constant, D. (2021). *Hammertoe*. PubMed; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK559268/>

Orthoin. (n.d.). *Hammer Toe - OrthoInfo - AAOS*. <https://orthoinfo.aaos.org/en/diseases--conditions/hammer-toe/>