

# Hammertoes



A hammertoe is an abnormal curling or buckling of a lesser toe (toes 2-5 are called lesser toes). A hammertoe can affect only one toe, or multiple toes. Typically, if only one toe is affected, the second or the fifth toe is involved.

The condition is typically caused by abnormal mechanics of the foot. Other factors that can play a roll in development of hammertoes include heredity, poor footwear (especially tight shoes, pointy shoes, and high heels), arthritis disorders, neurological disorders, and problems involving the calf muscle/Achilles tendon.

Hammertoes usually don't appear until adult years, developing slowly over a period of years. During this time, the severity of the toe deformity (curling or buckling) often becomes worse. More uncommonly, it is possible to have congenitally deformed toes a birth. It is also possible for a hammertoe to progress rapidly – particularly the second toe (in association with a condition called second metatarsophalangeal stress syndrome).

The condition is not always painful, but can be. If the toe deformity is severe enough, shoes can rub on the prominent knuckle area of the joint in the middle of the toe and cause pain and hard skin (called a corn). Pain and corns can also arise at the end of the toe when it is rubbing on the ground or shoe, or on the side of the toe when the prominent bony areas of two toes can rub together. Furthermore, hammertoes can be associated with pain at the bottom of the ball of the foot, called metatarsalgia - particularly the second toe (in association with a condition called second metatarsophalangeal stress syndrome). Hammertoes may also be associated with other foot deformities, like a big toe that is deviated towards or under the second toe (the medical term for this condition is called hallux abductovalgus with bunion).

Treatment of the condition falls into non-surgical and surgical categories. The goal of non-surgical treatment is to eliminate pain and/or prevent progression of the deformity. The goal of surgical treatment is to eliminate pain and correct the deformity. Non-surgical treatment usually does not correct the deformity.

## Non-surgical Treatment

- q Wear appropriate footwear. The shoes should have ample toe box room (width and depth) and should be made of soft upper materials. Purchase your shoes only after being properly measured for your length and width, and preferably later in the day. Alternatively, open-toed footwear can provide pressure and pain relief.
- q Have your shoes stretched at a shoe repair shop. Ask the shoe repairperson to “spot stretch” just the spot on the shoe that is overlying a prominent hammertoe. Some people have also obtained great relief by cutting an “x” in the shoe at the spot that overlies the prominent hammertoe.
- q Use padding. There are numerous types of pads that can be purchased at The Depot Store next to the Department of Foot and Ankle Surgery. Silicone sleeves can provide great cushioning. Crest pads are useful for pain or corns at the ends of the toes.
- q Perform self-care corns/calluses or have them trimmed on a fee for service basis. Self-care for corns/calluses can be performed by filing the area on a weekly basis with a pumice stone or callus file after a bath or shower. Corn/Callus care is not a benefit provided by the Kaiser Health Plan.
- q Preventive measures for hammertoes include the above recommendations, but may also include using foot orthoses (custom or over-the-counter) and performing calf stretching exercises on a daily basis. Over-the-counter orthotics are pre-fabricated, usually based on shoe size, are less expensive than custom-made orthotics, and may be less effective than custom foot orthotics. For over-the-counter foot orthotics, we recommend Superfeet orthotics, which can be purchased at The Depot Store next to the Department of Foot and Ankle Surgery. Custom foot orthotics are made from plaster molds of your feet, are more expensive than over-the-counter orthotics, and are usually more effective than over-the-counter foot orthotics. Custom foot orthoses are not a covered benefit of the Kaiser Health Plan. However, custom foot orthoses are available through the Department of Foot and Ankle Surgery on a fee for service basis. Perform calf stretching exercises for 30-60 seconds on each leg at least two times per day. (Stand an arm’s length away from the wall, facing the wall. Lean into the wall, stepping forward with one leg, leaving the other leg planted back. The leg remaining back is the one being stretched. The leg being stretched should have the knee straight (locked) and the toes pointed straight at the wall. Stretch forward until tightness is felt in the calf. Hold this position without bouncing for a count of 30-60 seconds. Repeat the stretch for the opposite leg.)

## Surgical Treatment

- q There are a number of different procedures that are used for the surgical correction of hammertoes. However, usually the surgical correction involves both, rebalancing the tendons and ligaments of the joint where the toe joins the ball of the foot and straightening and fusion of the joint in the middle of the toe (the one that is often bent down). In other cases, instead of fusing the joint in the middle of the toe, a segment of bone is removed at the joint to allow the joint to be straightened. In rare cases, the joint in the middle of the toe can be straightened by cutting the tendon on the bottom of the toe. In all cases, the primary goal is to relocate and straighten the operated toe and to reduce the associated pain/corn. Furthermore, additional surgical procedures may be required to correct associated deformities (like bunions) or predisposing factors (like a tight calf muscle). The number and nature of the procedures required for correction of your foot is determined by an examination of your foot clinically and with x-rays.

Typically, when a hammertoe is surgically corrected, a pin is placed down the middle of the toe and across the joint at the ball of the foot so that the toe can heal properly in the correct alignment. The foot is bandaged for the entire time that pins are in place, and must not be allowed to get wet. Pins are left in place for up to 6 weeks. Pins are removed in the clinic treatment room without anesthesia (like suture removal).

The surgery is usually performed on an outpatient basis (you go home the same day), under local anesthesia while you are administered sedation intravenously by the anesthetist/anesthesiologist. You are usually allowed to walk on the foot after surgery and a cast is usually not required. However, it is possible that your weight-bearing status and need for a cast may be determined by other factors, including other procedures that may be needed to correct your foot.

Full recovery may take 4-6 months. Depending on the type of work that you do, you will be advised to remain off work for as little as 2 weeks (for a completely sedentary job with no mobility requirements) to as much as 2 months (for a job that requires standing/walking).

The success rate is approximately 85-90%. However, results cannot be guaranteed and the outcome may be worse than the pre-operative condition. Risks include, but are not limited to: recurrent pain, corn, or deformity, incomplete/non-resolution of pain, corn, or deformity, worsened pain, corn, or deformity, arthritis at the ball of the foot, stiffness, weakness, shortened toe, lack of push-off with the toe(s), transfer of pain/corn to an adjacent bone or area, broken pins or hardware, premature loss of the pins, delayed or non-healing of bone, nerve injury or entrapment, delayed incision healing, painful or unsightly scar, prolonged recovery, infection, and circulation impairment or loss of the toe.)