

## **Painful Ingrown Toenails – Causes, Myths, Treatments, and Prevention**

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Ingrown toenails (onychocryptosis) are a common and painful nail plate (toe nail) deformity that can result in a superficial infection known as paronychia. This process presents as swelling and redness along the nail skin border, followed by acute pain due to the embedded nail spicule (nail sliver), drainage, malodor, and infection. In chronic conditions, there is development a red chronic inflammatory tissue in the nail fold. It occurs most commonly to the lateral border of the hallux (big toe) but can occur to any toenail.

There are multiple causes for an ingrown toenail. The shape of your toenail as a result in your genetics can predispose you chronic ingrown toenail problems. If your siblings and parents have had ingrown toenails, your likely to have the same nail plate shape and ingrown toenail problems. The most common nail shape that results in ingrown toenails are those with curved borders that dig into to tissue. Persons with these types of nails are routinely digging into the corners to trim out the offending piece. Unfortunately, if a part of the nail is not removed properly, a sharp nail spicule results. As the nail grows out, the spicule digs into the surrounding tissue resulting in inflammation and superficial infection. Other causes include trauma to the nail plate from activity, ill-fitting shoes, thickened and discolored nails caused by nail fungus (onychomycosis), and edema or swelling as a result of pregnancy and other metabolic processes.

Early treatment of the ingrown nail when the nail border is minimally swollen includes Epsom salt soaks, elevation of the nail corner, and applying a piece of cotton under the toenail corner until the nail grows out. Unfortunately, by the time most people notice there progressing ingrown nail, the nail needs medical intervention. If the nail border is swollen, red, and draining, medical attention is absolutely necessary. Most severe infections that occur are due to people performing “bathroom surgery” with unsterile switchblades and scissors. Please seek medical treatment.

Correction of ingrown toenails requires removal of the nail spicule (avulsion procedure). Antibiotics alone may reduce inflammation but rarely resolves an ingrown nail without removing the spicule. An avulsion is an in office procedure that is done with a localized anesthesia to the base of the toe. In our office we use Ethyl Chloride which is a liquid freezing spray to reduce the discomfort of the injection. After the toe is anesthetized properly, there is no procedural discomfort. The procedure will take 2-5 minutes and the offending nail border (side) is removed. It is not necessary to remove the whole toenail unless the entire nail plate is deformed from trauma or fungal infection. In chronic and reoccurring conditions, the application of an acid can be applied to kill the nail root resulting in permanent removal of the nail border (matrixectomy). Statistically, less than 3% reoccur following this treatment. Post-operative care will include Epsom salt soaks and coverage with a band aid. Most patients will be able to return to regular activity level the next day and pain management is control with over the counter pain medications. If a full toenail is removed, the nail bed does remain sensitive and one will have more discomfort than a partial nail procedure.

An additional note to parents, please check your children and especially teenagers toenails periodically. The worst cases of ingrown toenails I see are usually in teenage boys that don't feel that it is necessary to inform you of their toenail concerns until they are grossly infected.

Ingrown toenails are a painful but treatable problem. With the treatments that we have available, there is no reason to be “digging in the corners” to prevent you from ambulating without pain. Permanent removal of nail borders is a long-term solution that will prevent reoccurring pain and infection.