Chapter 10

Nail Removal

Margaret R. Colyar

CPT Code

11730–32	Nail removal, partial or complete
11750	Permanent nail removal, partial or complete

No code for cotton wick insertion—Use 11730–32 if part of the nail was removed.

An ingrown toenail occurs when the nail edge grows into the soft tissues, causing inflammation, erythema, pain, and, possibly, abscess formation (Fig. 10.1). Many times there is an offending nail **spicule** (small needle-shaped body) that must be removed.

OVERVIEW

- Causes
  - Curved nails
  - Congenital malformation of the great toenail, an autosomal dominant trait
  - Nails cut too short
  - Nail trimmed round edges
  - Poorly fitting or too-tight shoes
  - High-heeled shoes
  - Accumulation of debris under nail
  - Poorly ventilated shoes
  - Chronically wet feet

HEALTH PROMOTION/PREVENTION

- Cut nails straight across.
- Notch center of nail with a V.
- Wear absorbent socks.
- Wear shoes that allow proper ventilation.
- Wear shoes that fit properly.
- Avoid high-heeled shoes.
- Use good foot hygiene.

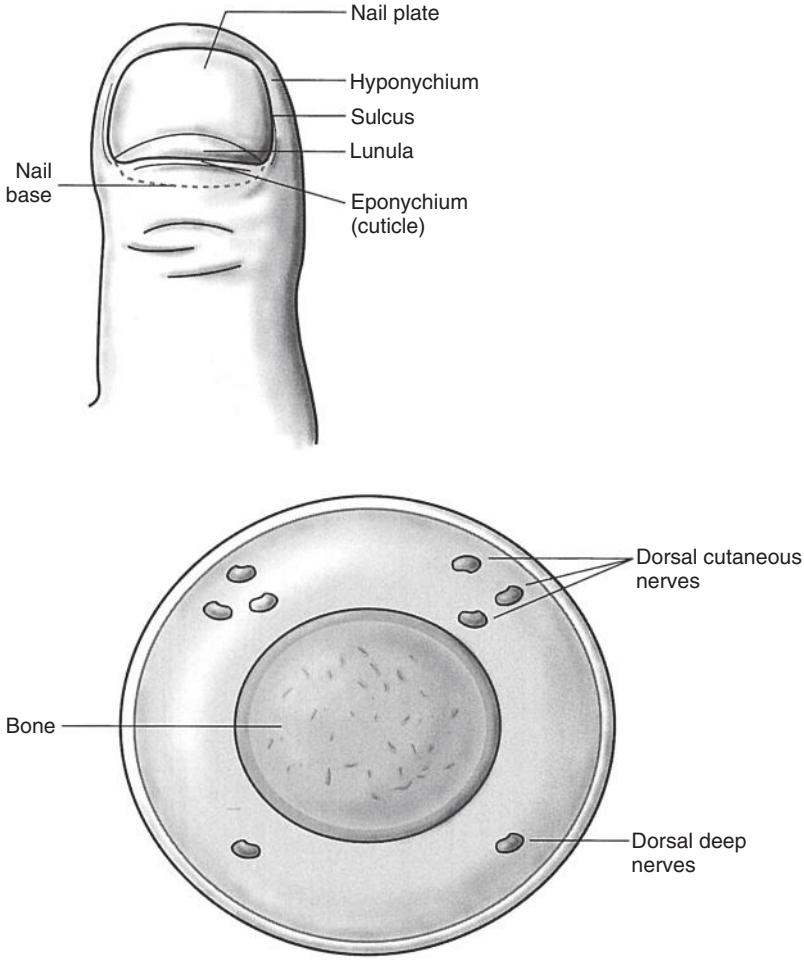

Figure 10.1 Toenail anatomy.

OPTIONS

- *Method 1*—Cotton wick insertion
  - A noninvasive technique to be used as the initial treatment. Six treatments may be required.
- *Method 2*—Partial avulsion with phenolization
  - For lesions lasting more than 2 months with significant infection and development of granulomatous tissue

RATIONALE

- To diminish pain
- To prevent or relieve abscess formation

- To promote healing
- To prevent toenail regrowth

INDICATIONS

- Ingrown toenail without complicating medical history (onychocryptosis)
- Chronic, recurrent inflammation of the nail fold **(paronychia)**

CONTRAINDICATIONS

- Diabetes mellitus
- Peripheral vascular disease
- Peripheral neuropathy
- Anticoagulant therapy
- Bleeding abnormalities
- Immunocompromised state
- Pregnancy because of need to use phenol
- Allergy to local anesthetics

PROCEDURE

Nail Removal

Equipment

- Method 1 only
  - Antiseptic skin cleanser
  - Nail file or emery board
  - Cotton: 3 mm (⅛-inch) thick by 2.5 cm (1 inch) long
  - Gloves—nonsterile
  - Splinter forceps—sterile
  - Tincture of iodine
  - Silver nitrate stick
  - 4 × 4 gauze—sterile
  - Tape
- Method 2 only—Digital nerve block
  - 5-mL syringe
  - 25- to 27-gauge, ½- to 1-inch needle
  - 1% lidocaine without epinephrine
- Method 2—Avulsion
  - Tourniquet
  - Gloves—sterile
  - Drape—sterile
  - **Hemostat**—sterile
  - Surgical scissors—sterile
  - Small straight hemostat—sterile
  - Cotton swabs—sterile
  - Silver nitrate stick
  - 80% or 88% phenol

- Alcohol swabs
- Alcohol
- Antibiotic ointment (Bactroban, Bacitracin, or Polysporin)
- Nonadherent dressing—Telfa or Adaptic
- Bandage roll (tube gauze)

Procedure

Method 1—Cotton Wick Insertion

- Have the client lie supine with knees flexed and feet flat.
- Cleanse affected toe with antiseptic cleanser.
- File middle third of nail on the affected side with a nail file or emery board as illustrated (Fig. 10.2).
- Roll cotton to form a wick.
- Gently push the cotton wick under the distal portion of the lateral nail groove on the affected side using splinter forceps (Fig. 10.3).
- Identify the offending spicule and remove it.
- Continue to insert cotton wick to separate the nail from the nail groove (1 cm of cotton wick should remain free).
- Apply tincture of iodine to the cotton wick.
- Cauterize granulomatous tissue with silver nitrate stick.
- Bandage the toe.

Client Instructions

- Change bandage daily, and apply tincture of iodine every other day.
- Return to the office weekly for cotton wick replacement.

Method 2—Partial Avulsion With Phenolization

- *Informed consent required*
- Have the client lie supine with knees flexed and feet flat.
- For digital nerve block, prepare 3 to 5 mL of lidocaine without epinephrine to anesthetize the affected area.

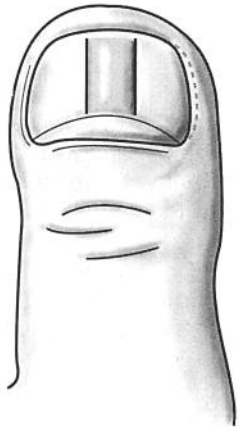

Figure 10.2 File the middle third of the nail.

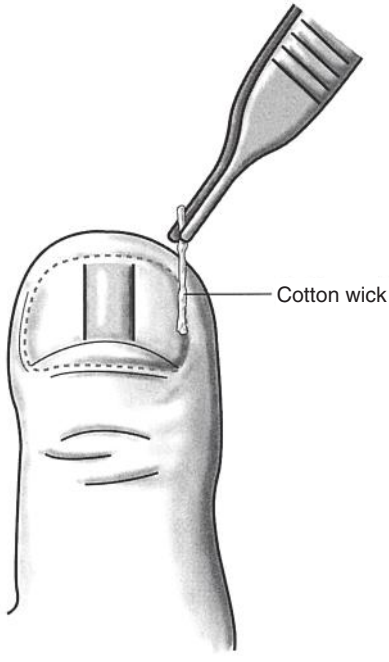

Figure 10.3 Gently push a cotton wick under the lateral nail groove.

- To anesthetize the nerves innervating the proximal phalanx on the extensor surface, insert the needle toward the plantar surface on the affected side.
- Injection sites are below the nail on the outer edges of the toe (Fig. 10.4). Be careful not to pierce the plantar skin surface.
- Inject 1 to 2 mL of lidocaine while withdrawing the needle. Do not withdraw the needle from the skin.
- Redirect the needle across the extensor surface, and insert the needle further. Inject 1 mL of lidocaine while withdrawing needle.
- Repeat procedure on opposite side of the digit.
- Allow 5 minutes for lidocaine to take effect before beginning procedure.
- Scrub the toe with antiseptic, rinse, dry, and drape with sterile drapes.
- Place the tourniquet around the base of the toe. Perform procedure in 15 minutes or less to avoid ischemia.
- Insert a single blade of a small hemostat between the nailbed and the toe to open a tract (Fig. 10.5). Remove hemostat.
- Place the blade of the scissors in the tract, and cut the nail plate from distal edge to the proximal nail base (Fig. 10.6).
- Remove the nail with a small hemostat, using gentle rotation toward the affected nail (Fig. 10.7).
- Using a hemostat, inspect the nail groove for spicules.
- Dry the newly exposed nailbed.

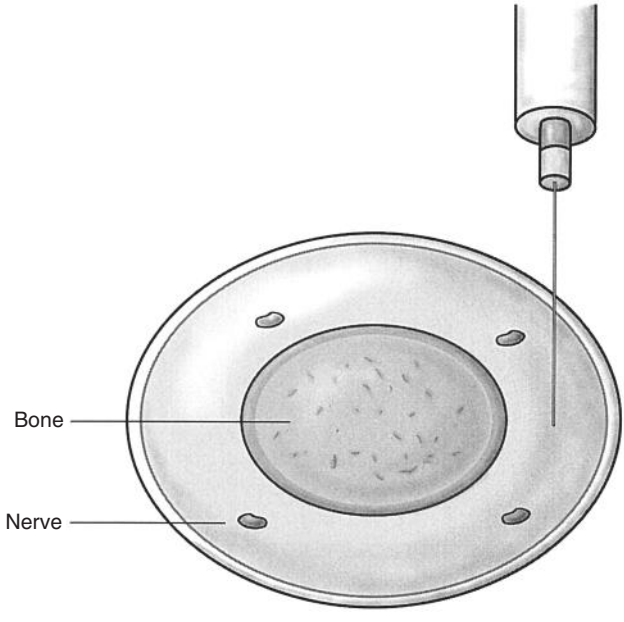

Figure 10.4 Anesthetize the nerve innervating the proximal phalanx. Inject the toe on the outer edges just below the nail.

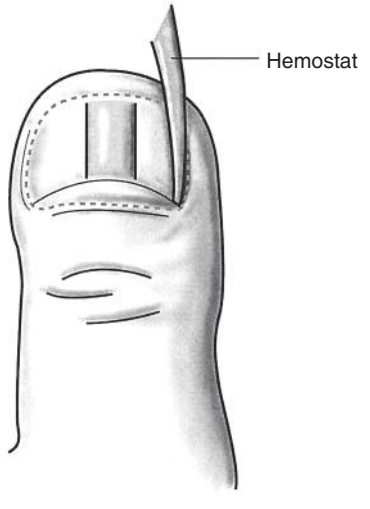

Figure 10.5 Insert a single blade of a hemostat between the nailbed and the toe to open a tract.

- Rub cotton swab saturated with phenol on germinal matrix beneath the cuticle for 2 minutes.
- Cauterize granulomas with silver nitrate stick.
- Remove tourniquet and elevate foot for 15 minutes.
- Place a dressing in the toe.

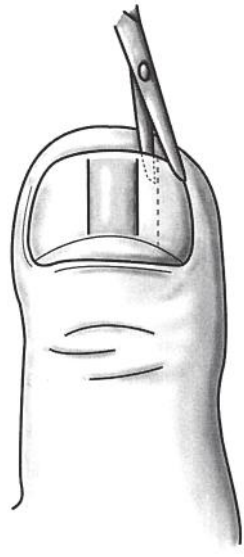

Figure 10.6 Cut the nail plate from distal edge to proximal nail base.

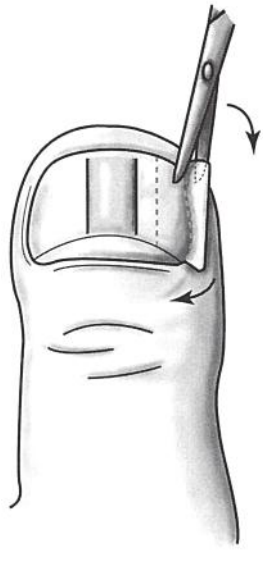

Figure 10.7 Remove the nail using gentle outward rotation toward the affected nail.

Client Instructions

- Avoid ischemia of toe by loosening the bandage and hanging foot down.
- Notify the practitioner if pain or swelling increases or green or yellow discharge is present.

- If toes become cold and pale
  - Elevate foot above heart level
  - Flex the toes
  - Check circulation by pressing on the toe and watching for return of redness when pressure is released
  - Call the practitioner if symptoms do not subside within 2 hours
- Use pain medications as ordered. Take Tylenol No. 3 every 4 to 6 hours for the first 24 hours; then take an NSAID such as ibuprofen.
- Take ordered antibiotics for 5 days (cephalexin, tetracycline, trimethoprim-sulfamethoxazole, amoxicillin).
- Return to the office for follow-up visit in 2 days.

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Chapter

Ring Removal

Cynthia R. Ehrhardt

CPT Code

20670	Superficial removal of constricting metal band
20680	Deep removal of constricting metal band

Occasionally, a ring must be removed from a digit. Whenever possible, a nondestructive method is preferred. Only when conservative methods have been exhausted should a ring cutter be used.

OVERVIEW

- Complicating factors
  - Swelling or **edema** to the digit
  - Increased pain and sensitivity to area
  - Embedding of metal filings into digit

General Principles

- Minimize the amount of pain.
- Smooth technique minimizes further trauma to area.