

# ECHO March 9, 2023

What To Do If You Find A Problem with the Feet

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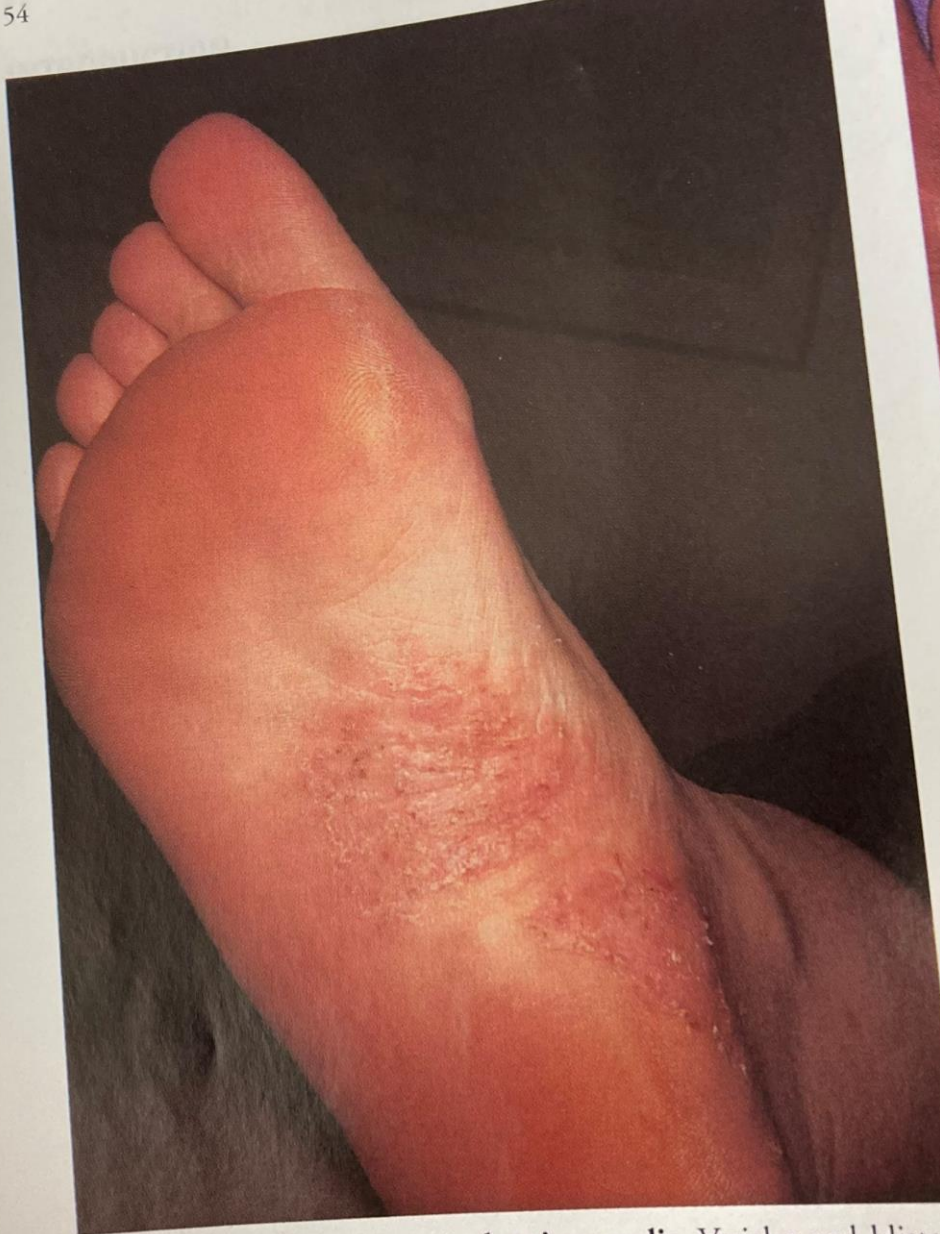


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Cutaneous Disorders of the Lower Extremity, Gary  
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# Tinea Pedis vs dry skin vs eczema

- Do a PAS stain or KOH to of a skin scraping if you're not sure, to look for hyphae.
- Antifungal products will make Eczema/dry skin worse.
- My favorite antifungal creams are ketoconazole (once daily for six weeks), Oxiconazole, Naftin, Luliconazole. Creams are used on the tops and bottoms of the feet.
- My go-to Powder is Nystatin. OTC options include Desenex and Lotrimin. Powder goes between toes. (don't use cream between toes, unless it's Luliconazole).



**Figure 6-4** Acute vesicular tinea pedis. Vesicles and blisters are common at the inner arch area of the foot. This condition does not usually involve the weight-bearing areas and is more active in the warmer and wetter months.

## Vesicular tinea in arch

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- Wash and dry with mild soap and water once a day and apply antifungal cream.
- Wash and dry daily feet using an antibacterial soap ("Dial" is a good choice). It is especially important to pay close attention to the areas between the toes.
- Don't wear shoes two days in a row. Allow shoes to "dry" for 24 hours between wearing.
- Use an OTC foot powder such as Desenex, Lamisil or Tinactin on a daily basis.
- Air out feet as much as possible.
- Use Betadine to dry out toe webs especially if cracks are present between toes.
- Use light-colored stockings or socks and avoid wearing hose.

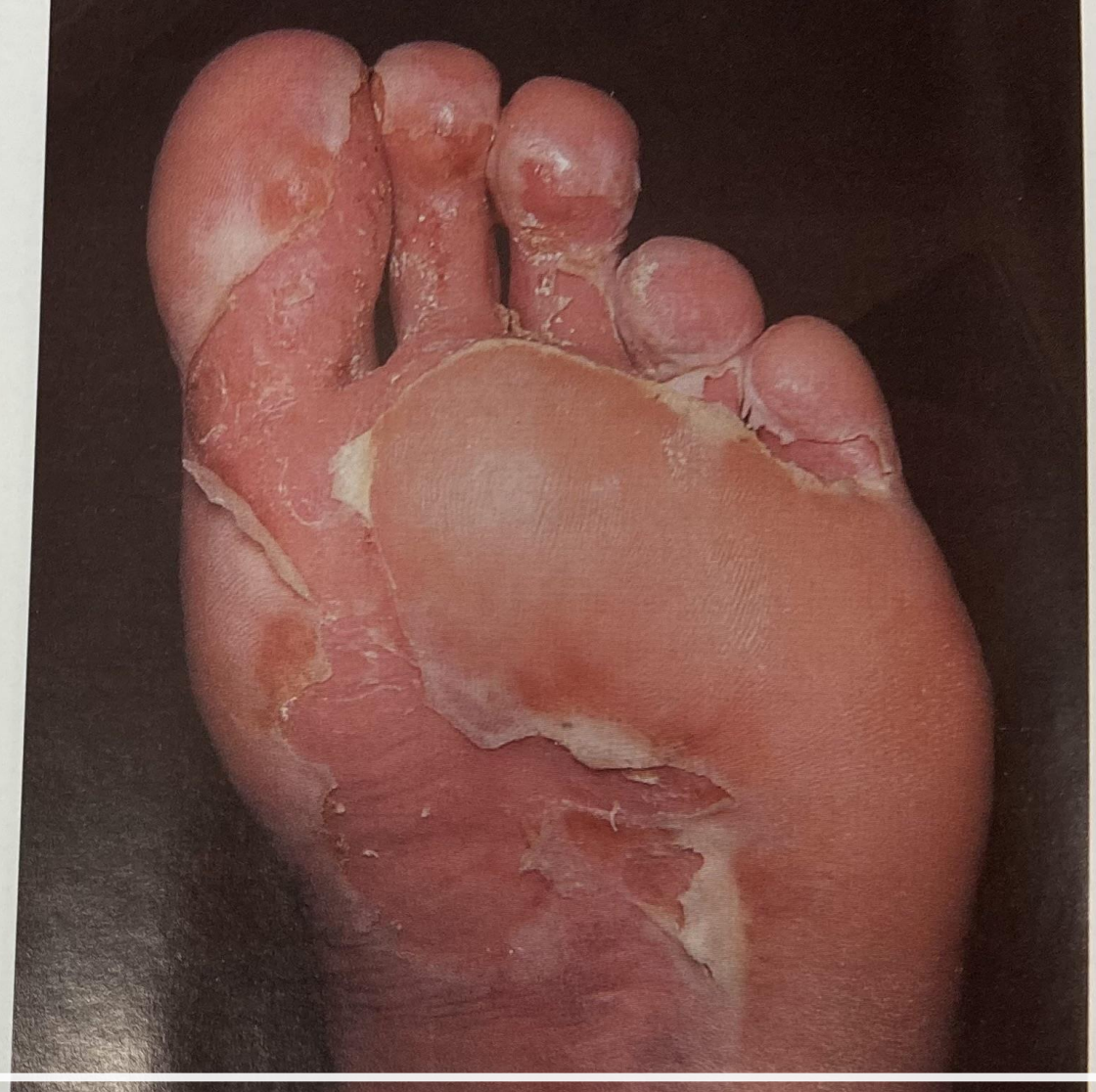
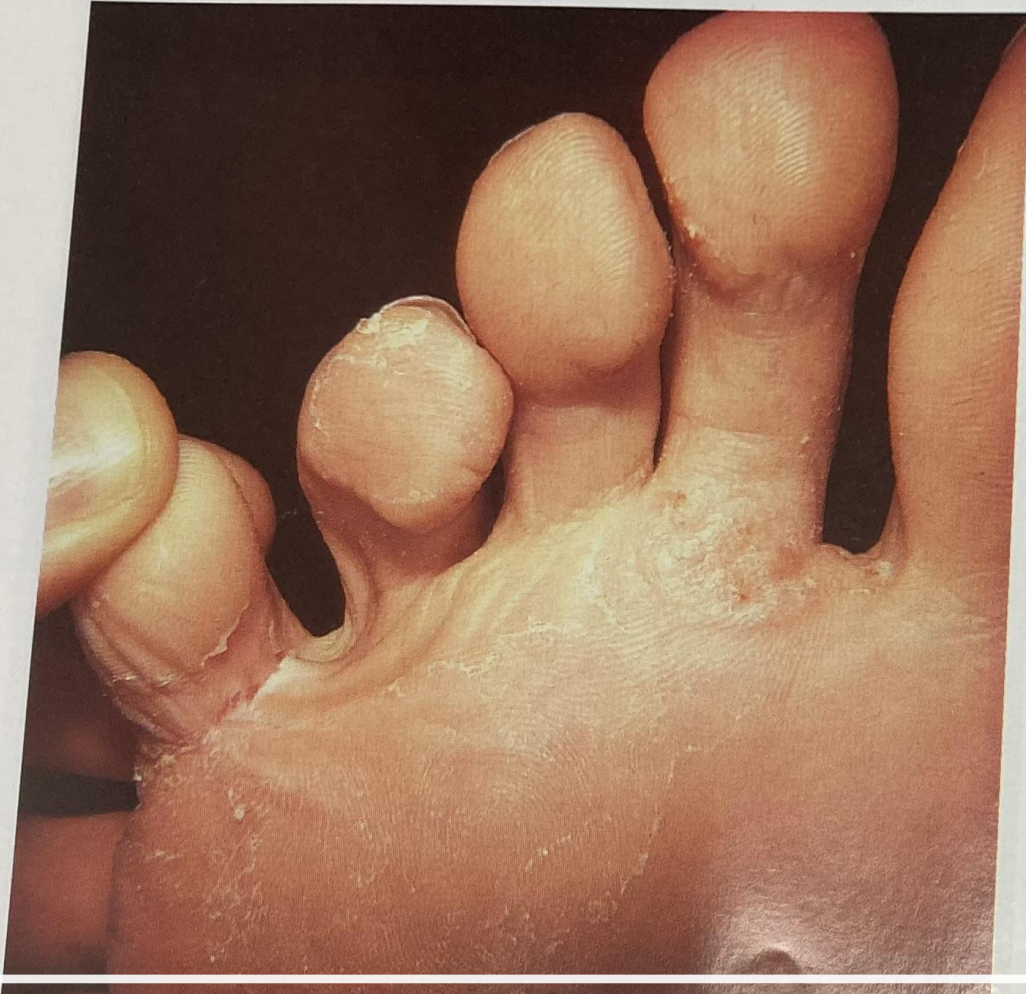
# socks

- Should be moisture wicking
  - Avoid cotton
- Balega, Bombas, Coolmax, Smart Wool and Drymax socks



Figure 6-8 **Tinea pedis.** Chronic infection with an erythematous pink base of skin on the plantar foot with fissuring and the  
*T. rubrum.*

test medium results, and positive KOH mounts. Treat-



On the right side, consider betadine daily after washing.

Fig 1 - (a) Interdigital tinea pedis. Intertriginous involvement with spread across the subdigital areas is common. (b) Acute ulcerative tinea pedis. Clinical presentation is distinctive with macerated, weeping, and denuded tissue on the feet.

# Onychomycosis- fungal infection of nail

- Skin medications won't work on nails
- Can lead to overlying bacterial infection.
- Debridements every three months, if possible.
- Professional grade Miltex nipper– the more hinges the better
- Rotary burr on Dremel for thinning







(Fig. 6-22).

**PROXIMAL SUBUNGUAL.** Proximal subungual infection is secondary to fungi entering the proximal (posterior) nail fold and then migrating to the underlying matrix and nail plate. The infection occurs within the substance of the nail plate, but the surface of the nail re-



**Figure 6-21 Ram's horn toenail deformity.** This lesion was the result of chronic infection and lack of proper care.



**Figure 6-20 Chronic distal subungual infection.** Note the large, round, and smooth proximal nail plate.

In these cases, the nails should be avulsed (chemically or manually) and the nail bed treated with topical antifungals. In severe cases, oral antifungals may be necessary.

# Onychomycosis

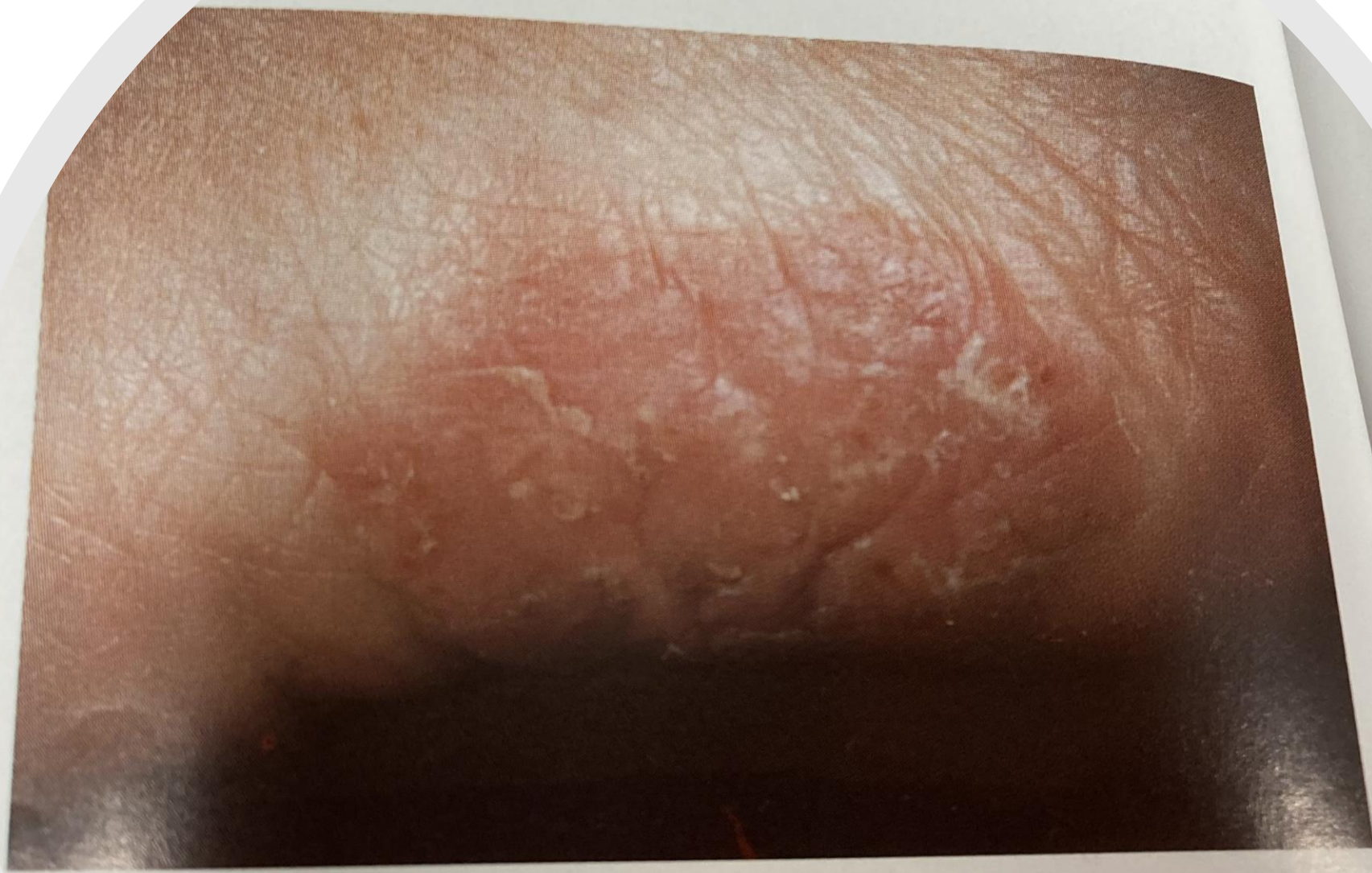
# If nail sample is PAS+

- Topicals include efinaconazole (Jublia), ciclopirox (Penlac)
- Oral medication includes Lamisil and Spronox. Liver function tests prior to therapy and at 25-28 days. Consider other meds potentially toxic to liver... cholesterol meds.
- Frequent debridement and the tinea pedis antifungal measures.

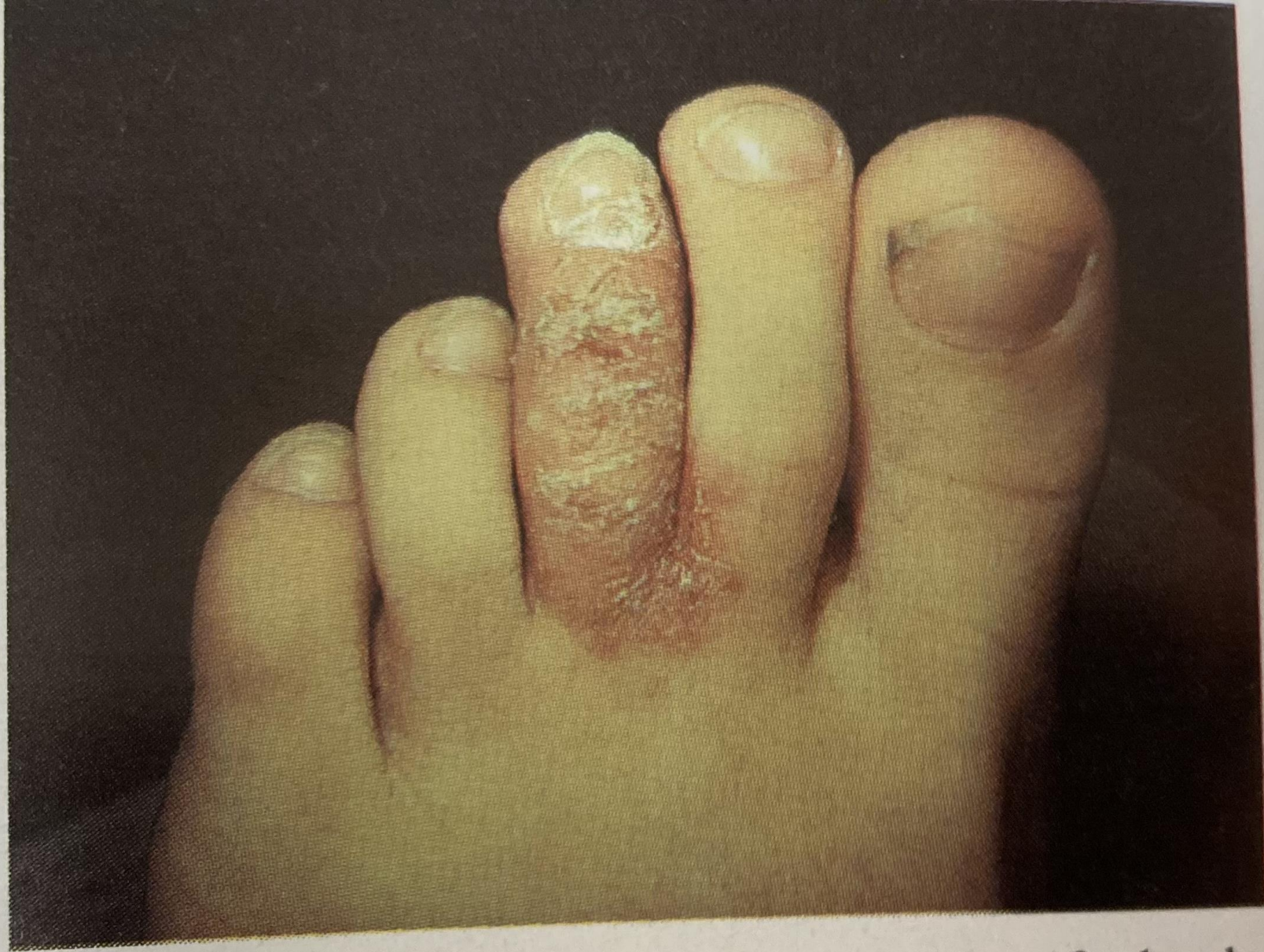
# If skin scraping is + for fungus

- Fungus likes dark, damp places!
- Reduce moisture... moisture wicking socks (not cotton), air out the shoes daily (change daily), use foot powder interdigitally daily (Desenex and Lotrimin are examples)
- If maceration is severe enough, dry with hair dryer on COLD between toes.
- High recurrence rate... Long-term hygiene measures with powder and drying skin gently and carefully.
- Ketoconazole for six weeks to skin, not interdigitally. Powder (nystatin or miconzaole) between the shoes. Others... Naftin, Oxistat, clotrimazole

eczemas



**Figure 10-3** Chronic eczematous dermatitis. A plaque of thickened tissue with accentuated skin lines and eczematous papules represents a case of lichen simplex chronicus.



**Figure 10-9 Atopic dermatitis.** Lichenified plaques have formed around the pruritic rash on the toes secondary to continued



**Figure 10-8 Atopic dermatitis.** Lichenification is associated with thickening and exaggeration of skin creases and postinflammatory hyperpigmentation on the feet.

bacterial or fungal elements, may lead to exacerbations. Emotional upsets and increased temperatures may also worsen the pruritus and, subsequently, the dermatitis.

Treatment of atopic dermatitis includes elimination of

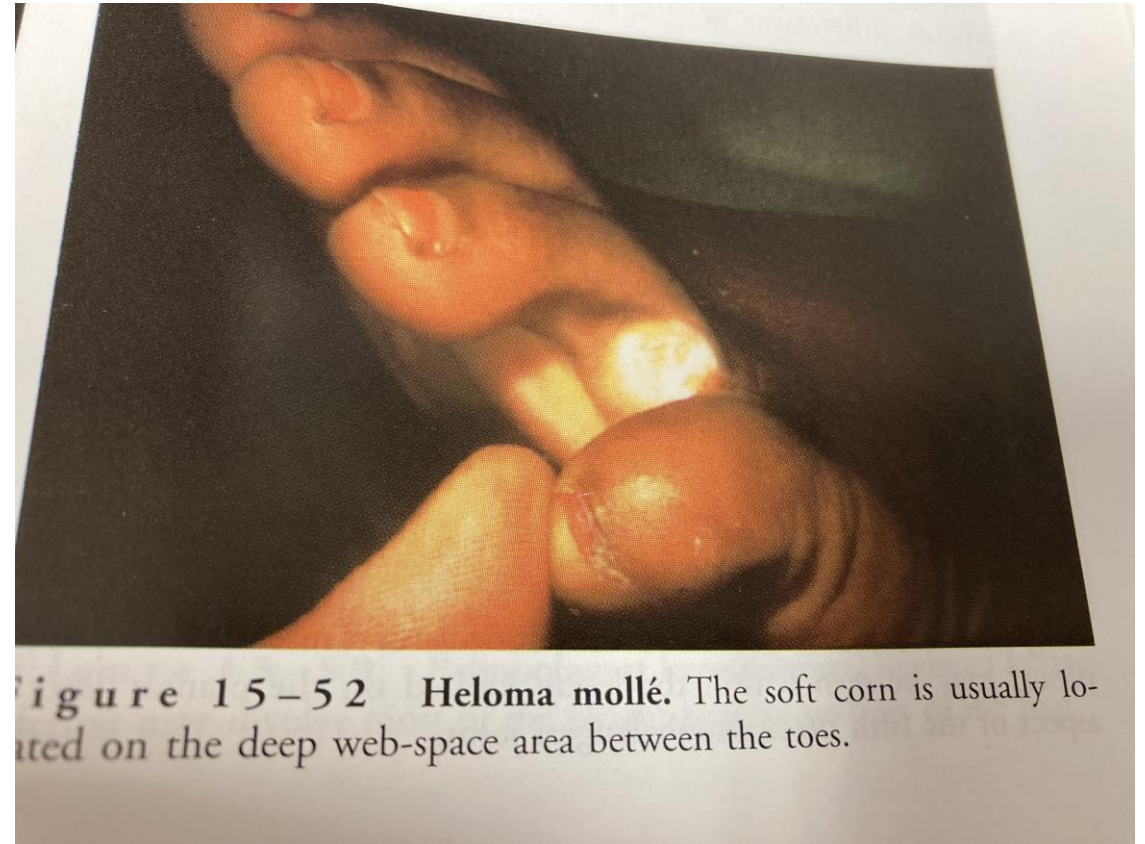
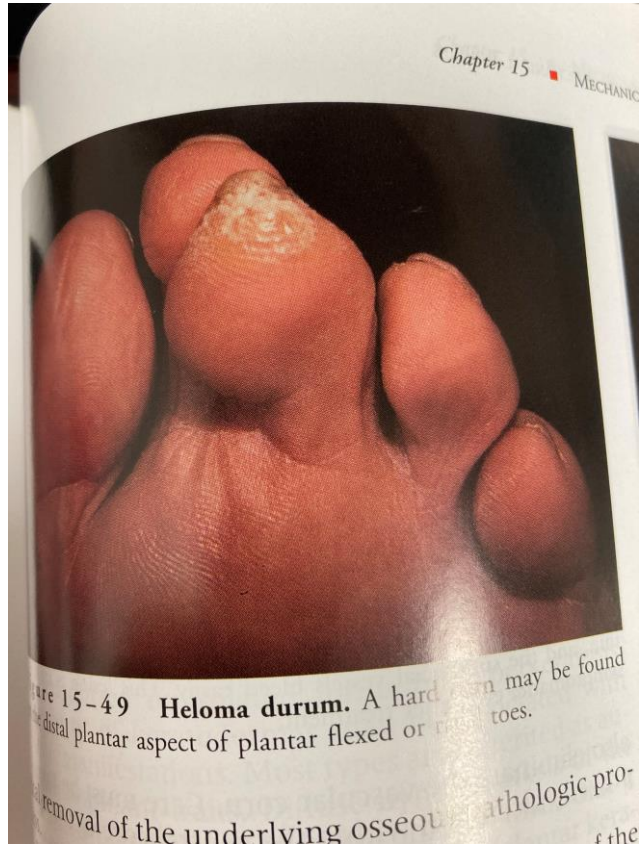
# Eczema treatment

- Moderate strength steroid cream like triamcinolone. If severely inflamed consider fluorinated steroid.
- Frequent moisturize! My favorites are Aveeno, Vaseline Intensive Care, Eucerin, Cera ve, Lubriderm. (not between toes!)
- Worse in dry climates with low humidity.



# Corns and Calluses (hyperkeratosis from friction/rubbing)

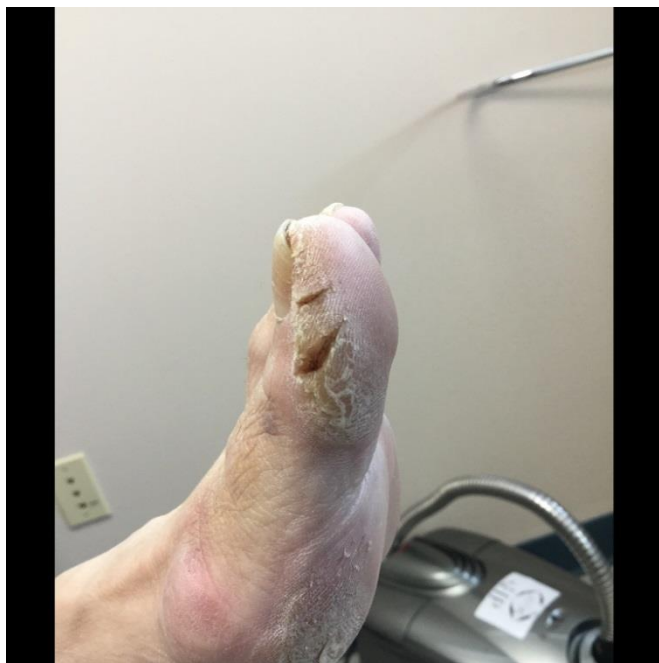
Debridement, application of urea-based keratolytic to calluses (not to be used on regular skin)

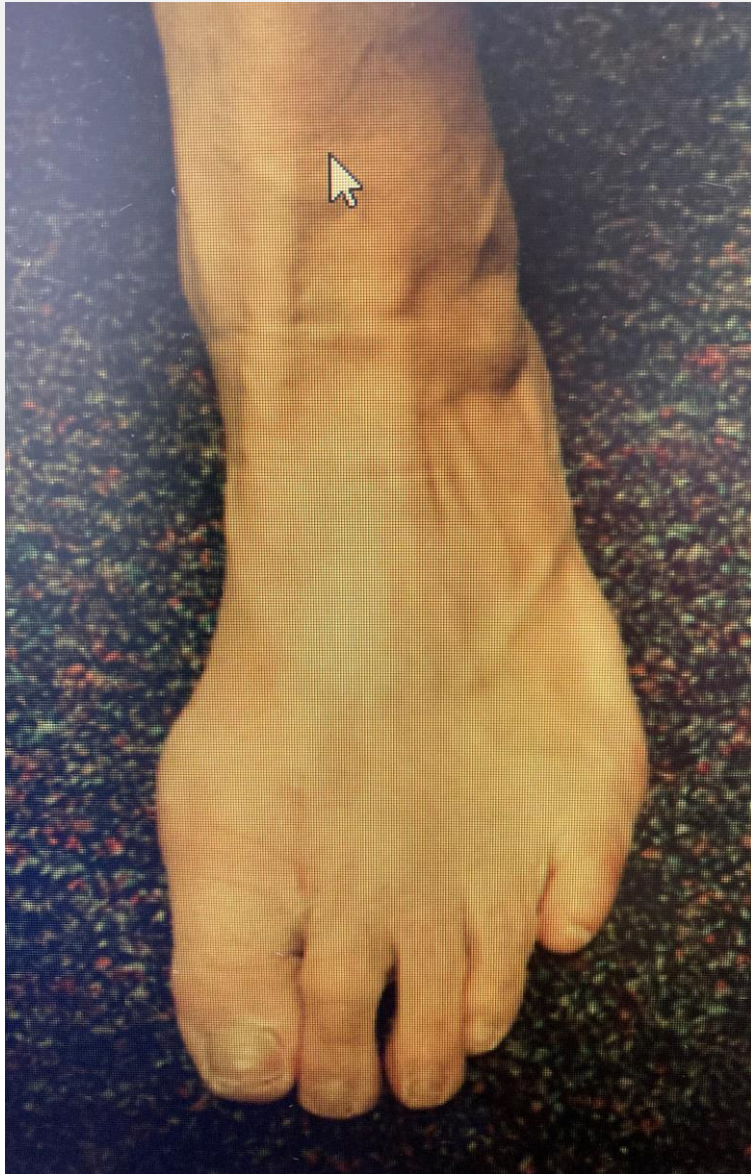


# Callus treatment

- Debride with a 10 or 15 blade scalpel or tissue nipper (pics needed here)
- Urea-based lotion, ketatolytic (ureacin is an option)
- Callused areas can ulcerate!
- Shoes that fit well.
- Refer to podiatry if pre-ulcerative

# Bunion causing callus





Before and after

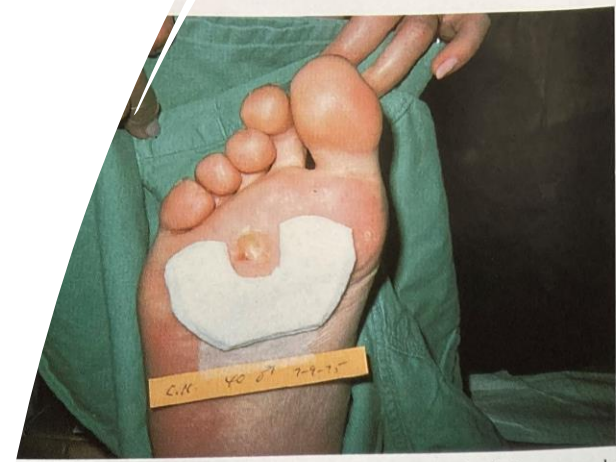
# Bunionectomy

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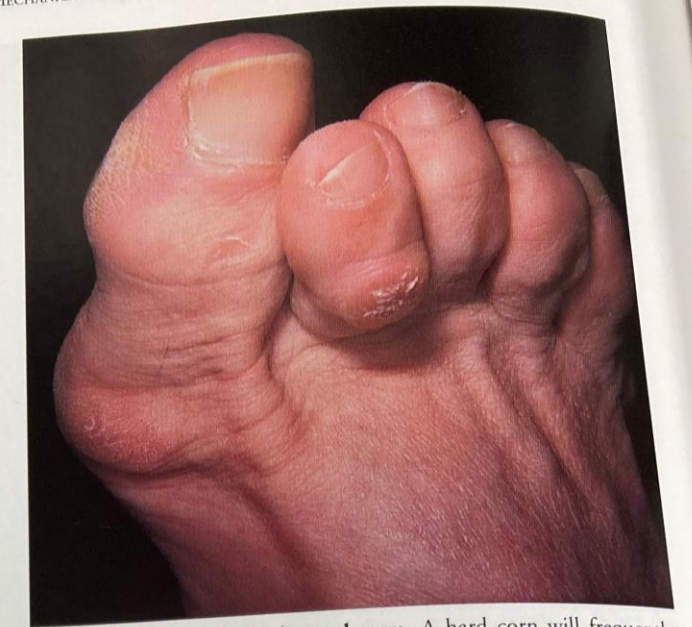
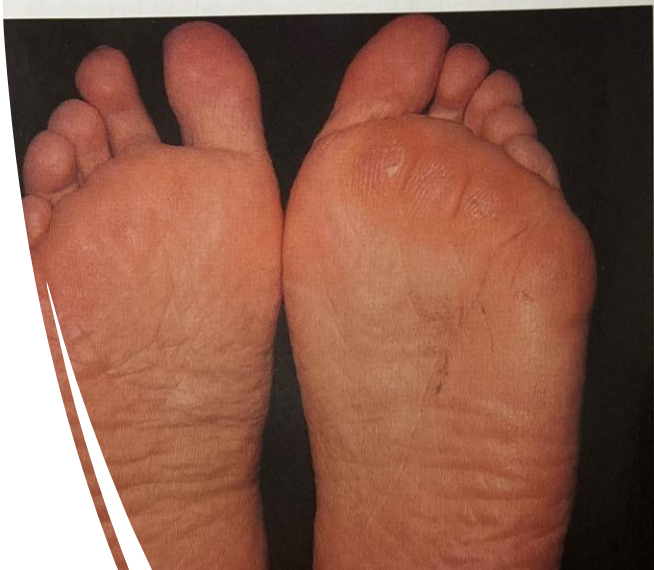
# Calluses

- Offloading felt pad
- Reduce pressure
- Wider shoes
- For plantar callus like lower left, consider gel insole if fat pad atrophy



**Figure 15-45 Isolated hyperkeratosis.** The lesions may be debrided sharply to remove most of the dead tissue and then be protected by felt padding. (Courtesy of Dr. Steven LeBaron.)

the body where intermittent or increased pressures have allowed thickening of the skin. The discrete helomas, also called corns, may be found in several different forms, including *heloma durum* (hard corn), *heloma milliare* (seed corn), *heloma mollé* (soft corn), *heloma neurofibrosum* (neurovascular corn), and *heloma vasculare* (vascular corn). Heloma durum is a col-



**Figure 15-47 Heloma durum.** A hard corn will frequently form over prominent areas, such as on the dorsal surface of the second toe.

lection of dense compacted tissue that is frequently located over the pressure areas of the toes (Fig. 15-47), especially the dorsal lateral aspect of the fifth toe (Fig. 15-48) and the plantar distal aspect of the middle lesser toes (Fig. 15-49). Treatment ranges from simple debridement and padding to topical keratolytics to sur-



# Debridement tools





Medium  
4/pk

# Visco-GEL® Toe Spacer with Fabric Sleeve

Relieves Toe Pain

Cushion, Protect, Soothe



with original  
Visco-GEL®  
technology

Reduces Irritation Between Toes  
Absorbs Pressure & Friction  
Fabric Sleeve Keeps Spacer in Proper Position

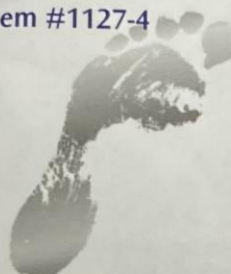
Made with **NEW SmartGel** technology

The Most Trusted Family  
in Footcare, Since 1885



1006-M

Item #1127-4



Large  
4/pk

# Visco-GEL® Toe Spacers

Relieve Toe Pain Instantly

Cushion, Protect, Comfort



#28

- Ease Pressure on Bunion Joint
- Separate & Align Crooked Toes
- Cushion & Relieve Between-Toe Irritation

Medical Device Identifier



(01)00092437148370

For distribution to medical professionals only.



Medical Footcare

Item #8154A-LL



Large Left  
Fits shoe sizes: Women's 11+  
Men's 9-10  
3/pk

# Deluxe Suede Hammer Toe Crests

Relieve Toe-Tip Pressure

Cushion, Protect, Comfort



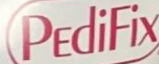
- Cushion & Support Hammer, Claw, Mallet, Arthritic & Bent-Under Toes
- Ease Metatarsal and Forefoot Pain
- Adjustable Elastic Band to Hold in Place
- Anatomically-Correct Shape for Maximum Effectiveness

Medical Device Identifier



(01)00092437112173

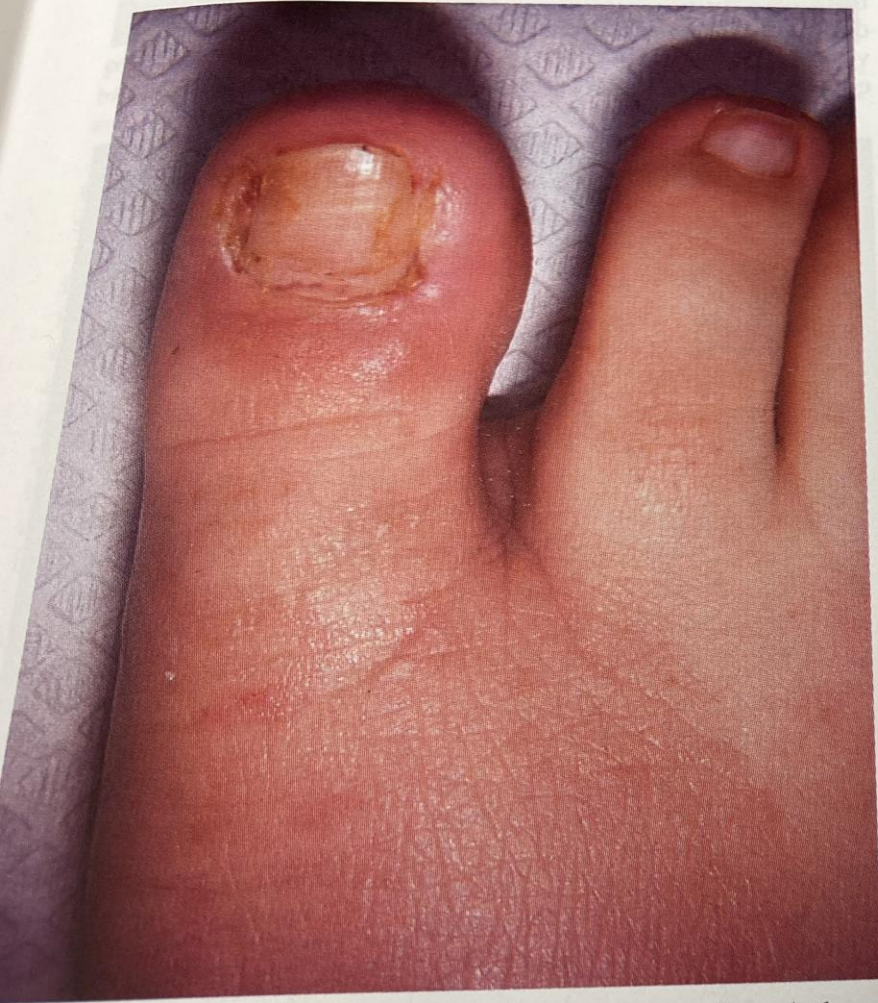
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Medical Footcare



**Figure 5-13 Furunculosis.** An acute staphylococcal infection of the hair follicle appears as spreading cellulitis into the adjacent dermis. Pus may extrude from the lesion spontaneously.

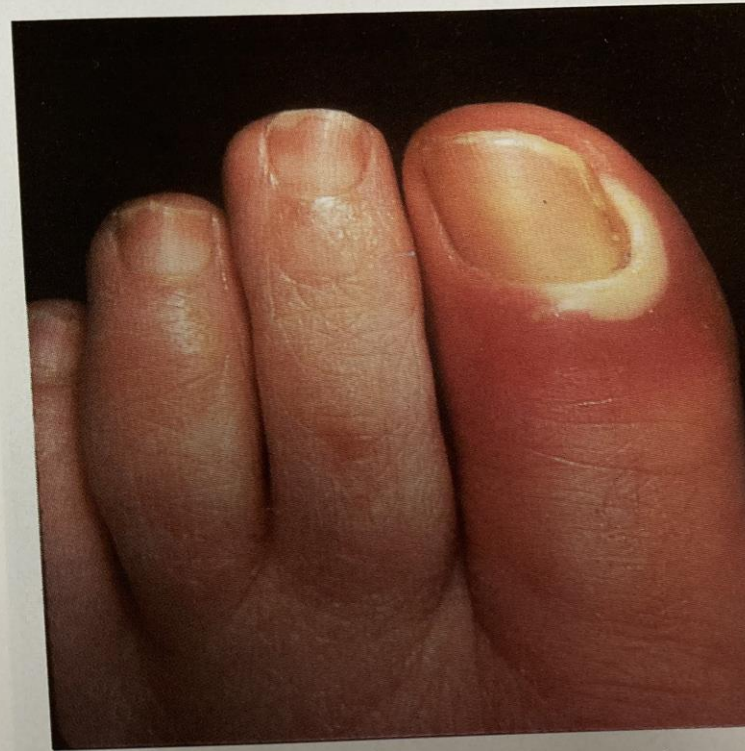


**Figure 5-14 Paronychia.** Typical appearance of staphylococcal infection with localized, swollen, erythematous, and draining at toenail border.

to clear the infection. Granulomas may form in some cases that do not respond to incision and drainage or partial nail avulsion combined with foot soaks.

#### Pyogenic Granuloma

Pyogenic granulomas (granuloma pyogenicum) are usually small, rapidly growing, pink to bright red vascular tumors. They may arise rapidly in areas of minor trauma, especially next to an ingrown toenail, and may be very tender (Fig. 5-16). The brain-like lesion is friable, bleeds easily, and can grow from a small stalk to



**Figure 5-15 Paronychia.** Characteristic appearance of staphylococcal infection with acute, hot, bright-red toenail border and a small amount of purulent drainage.

## Ingrown nails

- Digital block then partial or total nail avulsion
- Foot soaks and topical antibiotics. Oral antibiotics (cephalexin or amoxicillin/clavulanic acid)
- Matrixectomy if infection isn't severe

skin disorder characterized by a vesicular dermatitis secondary to trapping of sweat at some point in the duct. This condition is not common on the feet but does occur. Two main types of miliaria are miliaria crystallina and miliaria rubra.

Miliaria crystallina occurs as a number of small, asymptomatic, discrete vesicular lesions of about 1 mm in diameter on the sole of the foot, ankle, or lower leg region (Fig. 5-28).

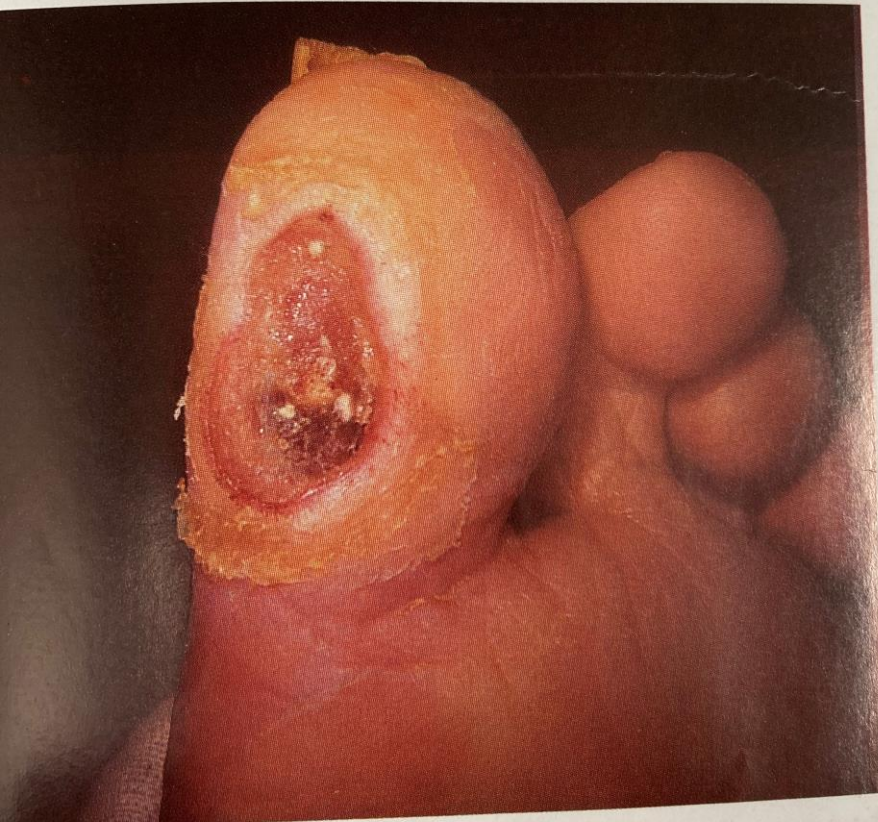


Figure 5-25 **Ulceration.** Infected mechanical ulcer on medial malleolus in patient with neuropathy.

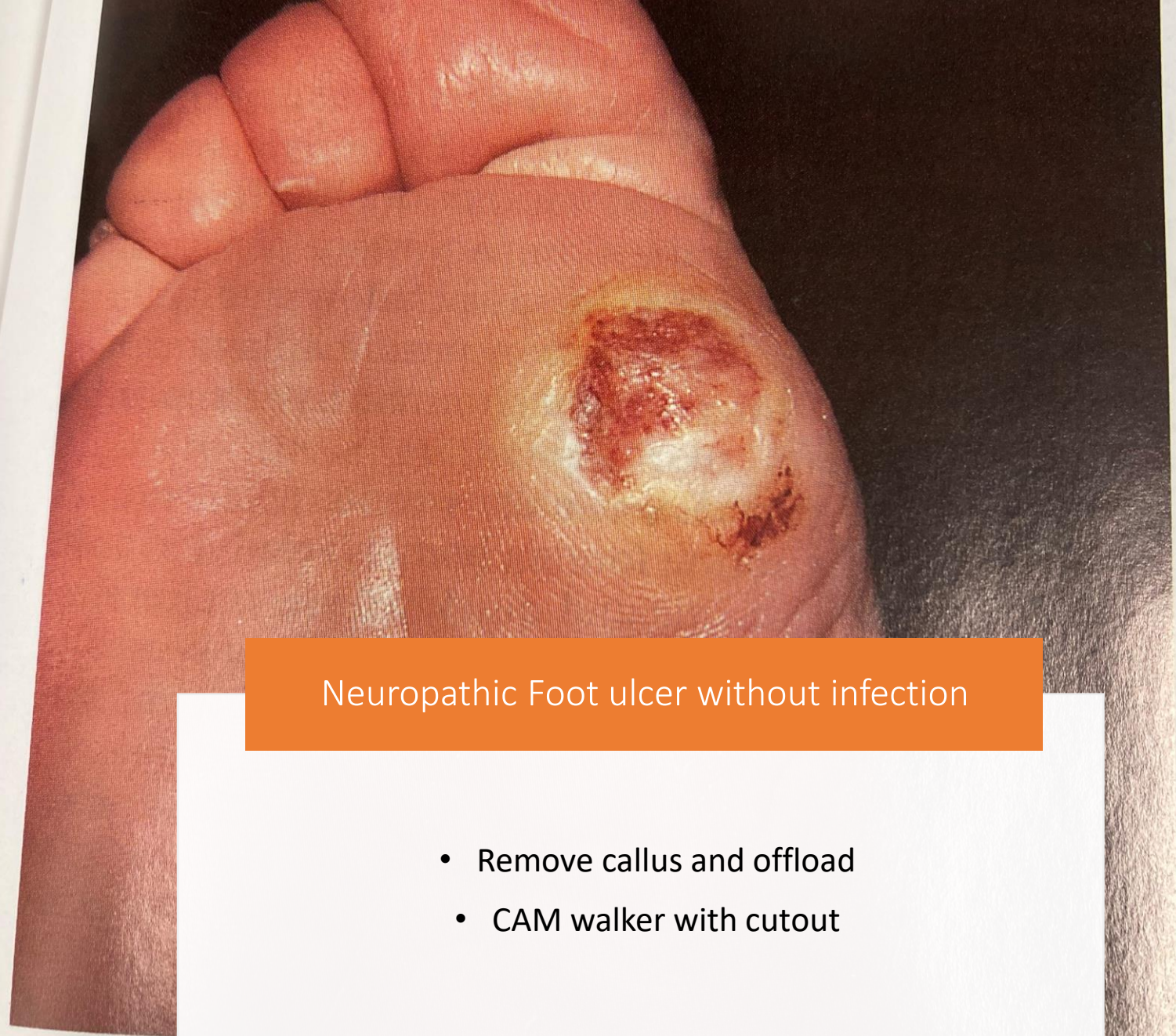


Figure 15-17 brown crusty skin on sole of foot

and may be obstructed by obstruction of the sweat gland. In interdigital areas, such as the ankle, lesions are often seen in the weather. Primary erythema is usually self-limiting.

Miliaria crystallina is a sweat gland lesion. Lesions are usually asymptomatic, but may be itchy. Inflammation may be secondary to staphylococcal infection of the plantar surface. Pustular lesions are common in the interdigital area.

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Neuropathic Foot ulcer without infection

- Remove callus and offload
- CAM walker with cutout

Figure 15-17 **Neurotropic ulcer.** Mal perforans with thick callus rim that is

# For foot ulcers

- Do not soak, especially if deep
- Keep surrounding skin well-hydrated
  - Offload with CAM walker
  - Offload with surgical shoe and hex peg
- Culture only if signs of infection, not routinely
  - Antibiotics if infected, not preventative
- Will need to address offloading long term when healed so recurrence is less likely



Hex Peg goes in CAM walker. Remove pegs under ulcer



# Infected ulcer

- Will need xray, MRI if osteomyelitis is suspected
- Culture... deep
- Oral or IV antibiotics
- May need inpatient treatment if oral antibiotics are not effective
- Labs... cbc, cmp, esr, crp, blood culture
- Vitals... fever? Chills?



# Hammertoe crest pad

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- Great for distal calluses and ulcers
- Well-tolerated
- Check for new ulcers; do not pull band too tightly

# Diabetic shoes

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# Therapeutic shoes

- Five different measurements and an impression of the feet and send to a lab like Surefit or Dr. Comfort
- To accommodate deformities and reduce shearing and calluses
- Can be customized for calluses with cutouts
- Medicare Paperwork!



Severe Charcot Foot

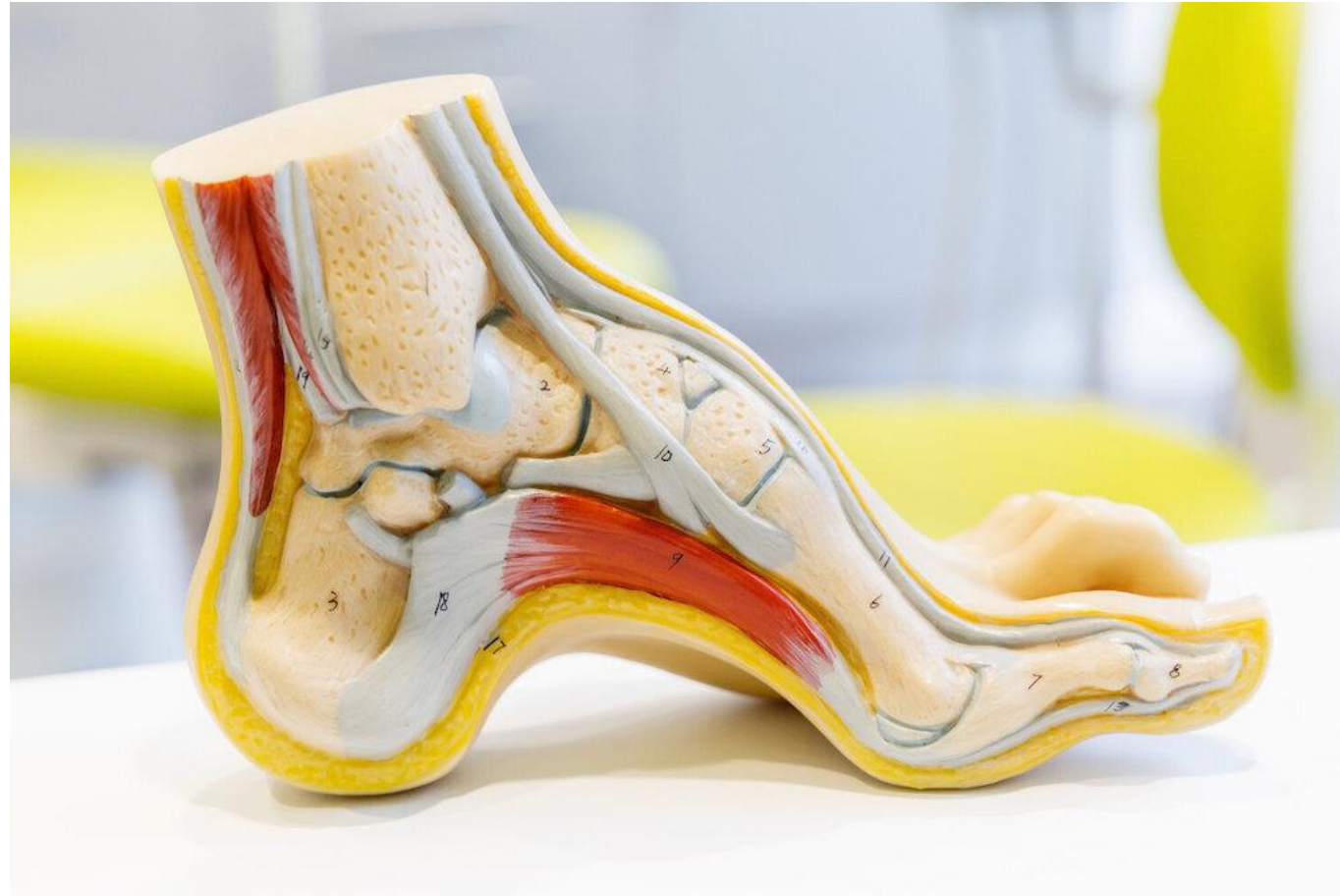
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# Charcot Foot

- Stabilize in CAM walker for 3 months until radiographic evidence of fusion
- Then will need custom shoes and inserts to accommodate the bump
- Reconstruction or exostectomy.

Fat Pad Atrophy can predispose patients to ulcer over metatarsal head or heel



# Silicone insoles



Thank you.