Dermatology: What you need to know in primary care
Part I

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20 most common dermatology diagnoses

1. acne
2. rosacea
3. psoriasis
4. seborrheic dermatitis
5. atopic dermatitis
6. contact dermatitis
7. stasis dermatitis/ulcers
8. urticaria
9. dermatophyte infections
10. tinea versicolor
11. hemangiomas/port-wine stain
12. verruca/condyloma
13. molluscum contagiosum
14. seborrheic keratosis
15. actinic keratosis
16. melanocytic nevi
17. impetigo, folliculitis, abscess
18. herpesvirus infections
19. scabies
20. pityriasis rosea

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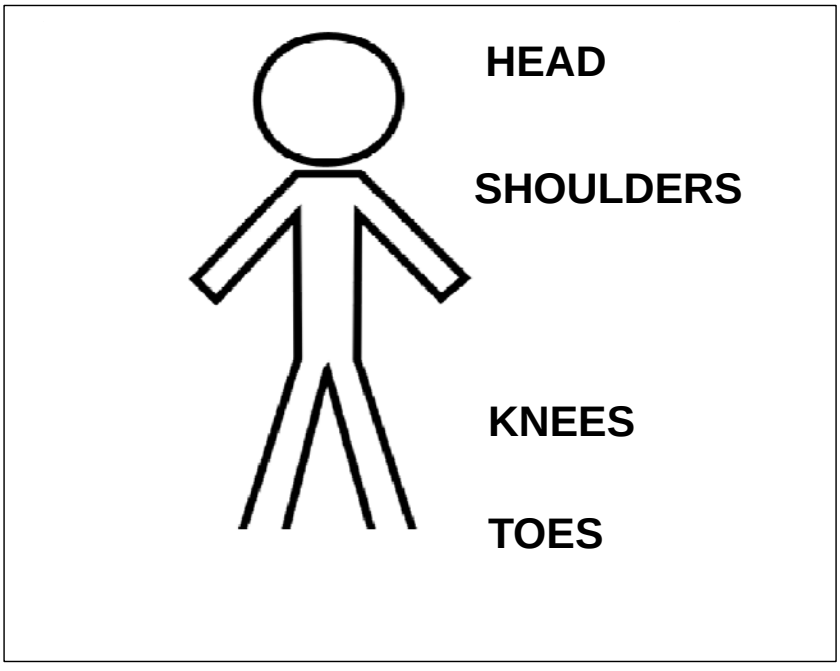
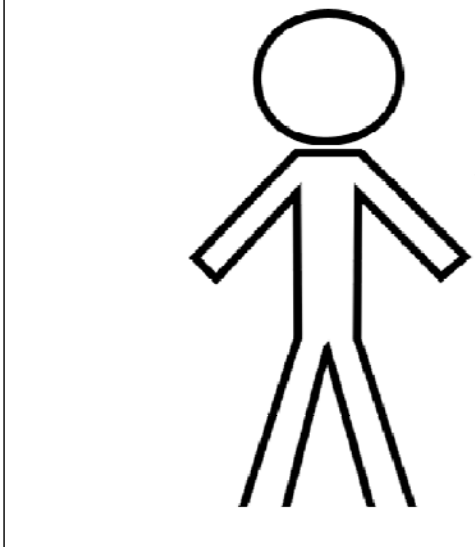




HEAD

SHOULDERS

KNEES

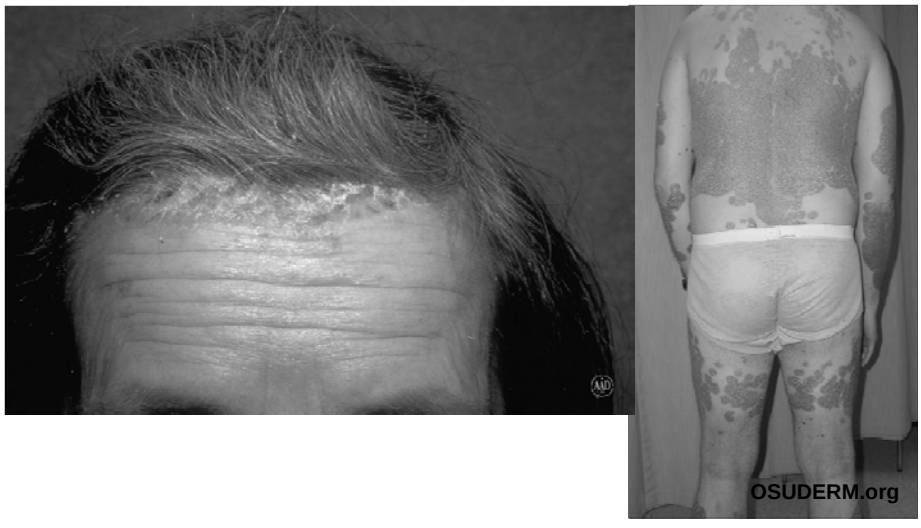
TOES

PSORIASIS

Psoriasis

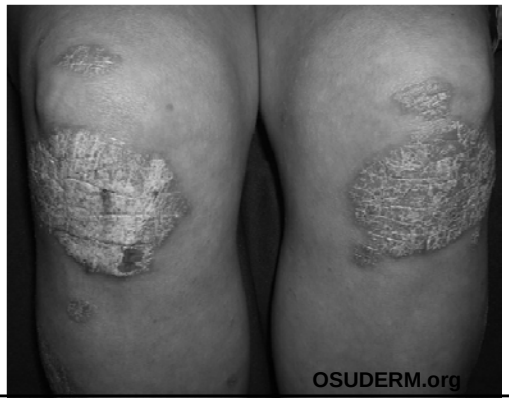
- Four Main types:
  - Plaque
  - Guttate
  - Pustular
  - Inverse
- Arthritis can be seen with any type

Plaque Psoriasis



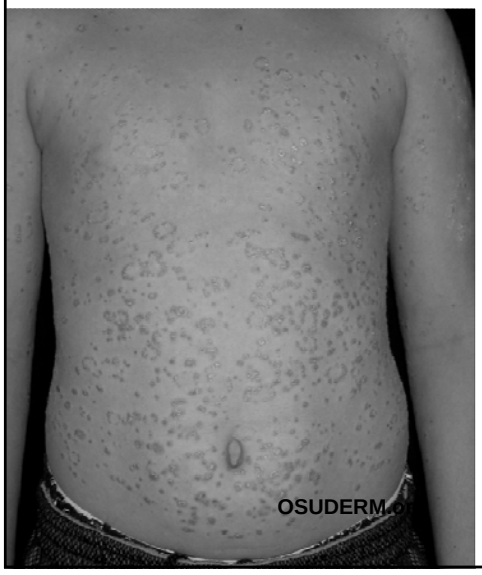
Plaque Psoriasis

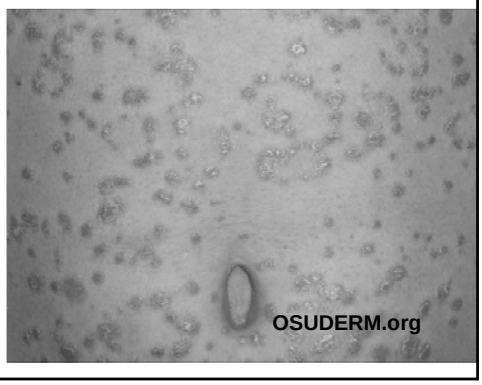
- Most common type
- Scalp, Elbows, Knees, Sacrum
- Usually itches



Guttate Psoriasis

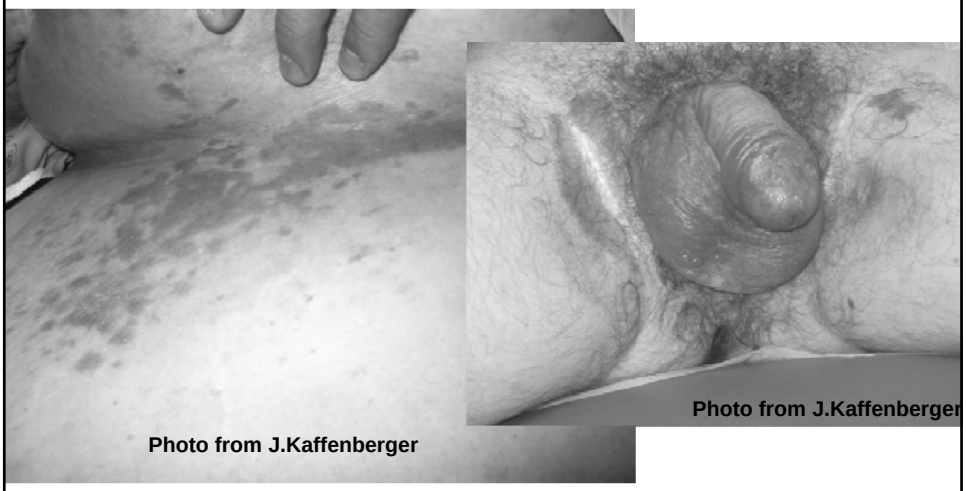
- More common in children
- Related to strep infections
- Trunk most involved
- May resolve spontaneously





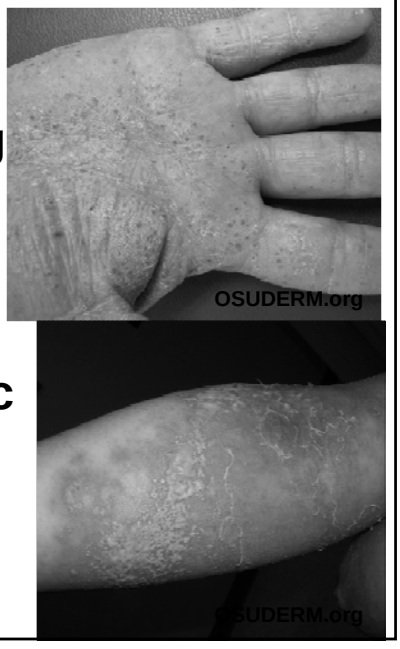
Inverse Psoriasis

- Usually macerated – scale NOT visible



Pustular Psoriasis

- Most acute type
- Can be life threatening
- May have fevers, high WBC
- Can be caused by withdrawal of systemic steroids



Psoriasis

Treatment

Topical

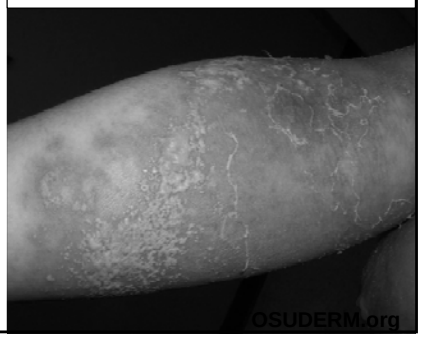
- Steroids: mid-strong potency
  - Triamcinolone 0.1% (only one that comes in a tub)
- Calcipotriene
- Tacrolimus/Pimecrolimus: usually for inverse pso (off-label)
- Ultraviolet light: 2-3x weekly

Systemic

- Acitretin, cyclosporine, biologics (call dermatologist)

Other:

- Pustular pso: call derm
- AVOID systemic steroids – can cause severe flare when stopped



Psoriasis Pearls:

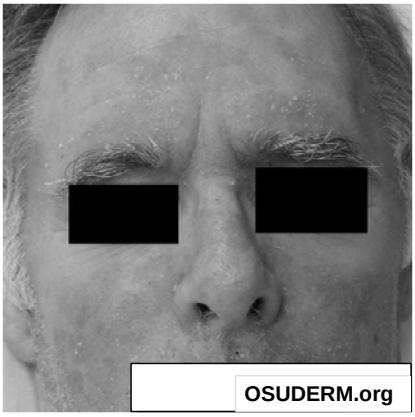
- Give appropriate amount of topical medication

  (Whole body application approx 30g)

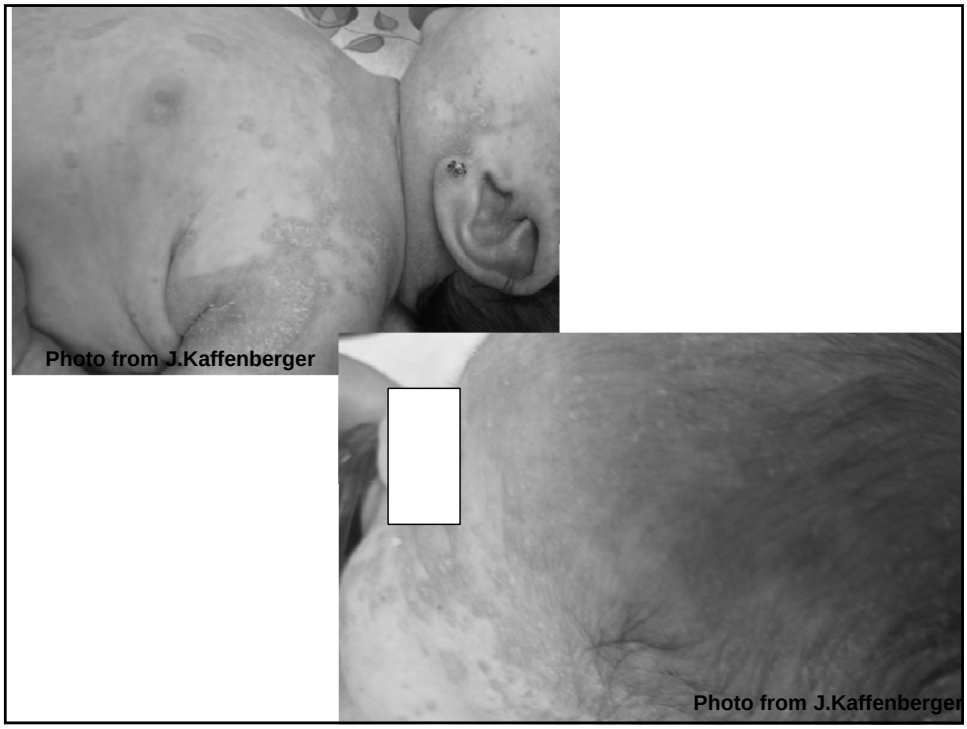
- Pso = lifelong condition –choose therapies accordingly

- Make sure correct vehicle for all pso locations
  - Scalp = oil, solution, foam
  - Body = cream, ointment

SEBORRHEIC DERMATITIS



- Most common = Face and scalp
  - "butterfly rash"
- Can affect intertriginous areas esp in children
- Yellow/greasy scale
- Cause: *Pityrosporum ovale*
- +/- itch



Seborrheic dermatitis

Treatment

- **Zinc, selenium sulfide, or ketoconazole shampoos**
  - **Leave in for 3-5 min before rinsing**
  - **Use on side of nose and eyebrows too**
- **Scalp: Clobetasol solution**
- **Face: Intermittent (minimize use) hydrocortisone 1-2.5%, or tacrolimus/pimecrolimus**

Seborrheic dermatitis pearls

- **Manage expectations: can't cure, can control**
- **Assoc with Parkinson's and AIDs**
- **Can overlap with psoriasis "sebopsoriasis"**

ACNE

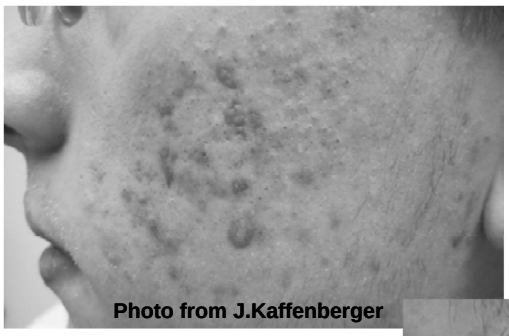
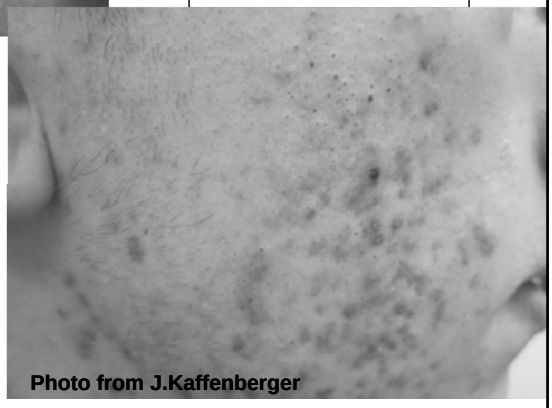


Photo from J.Kaffenberger

One size fits all



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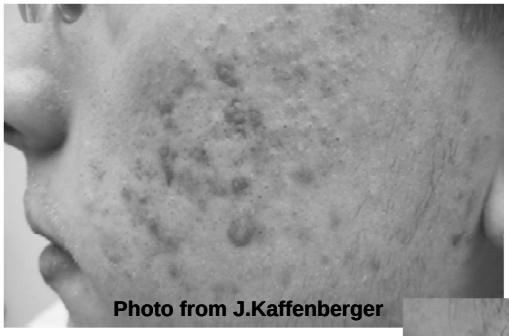

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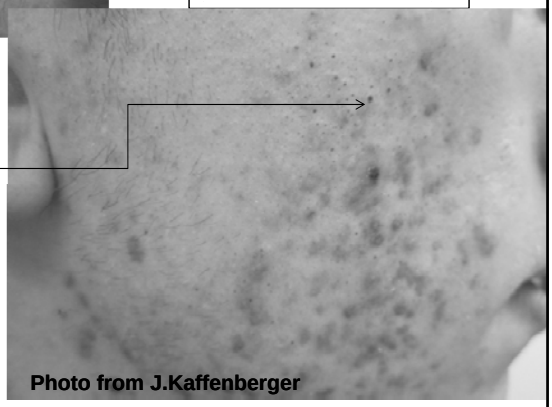


Photo from J.Kaffenberger

1. **Non-inflammatory:**
   - **Comedones**

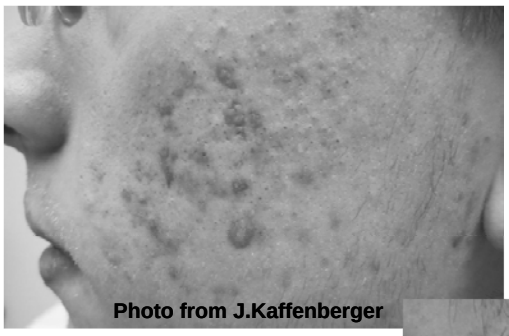
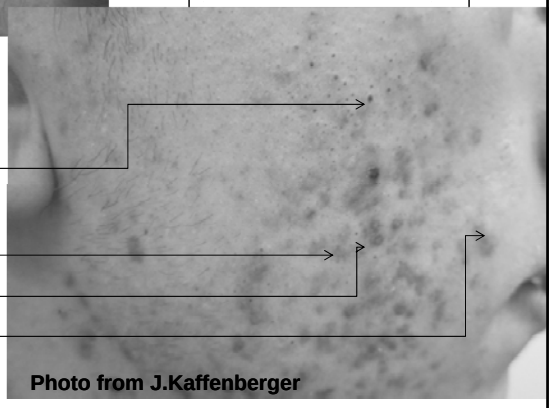


Photo from J.Kaffenberger

1. Non-inflammatory:
   - Comedones
2. Inflammatory
   - Papules
   - Pustules
   - Nodules
   - Cysts



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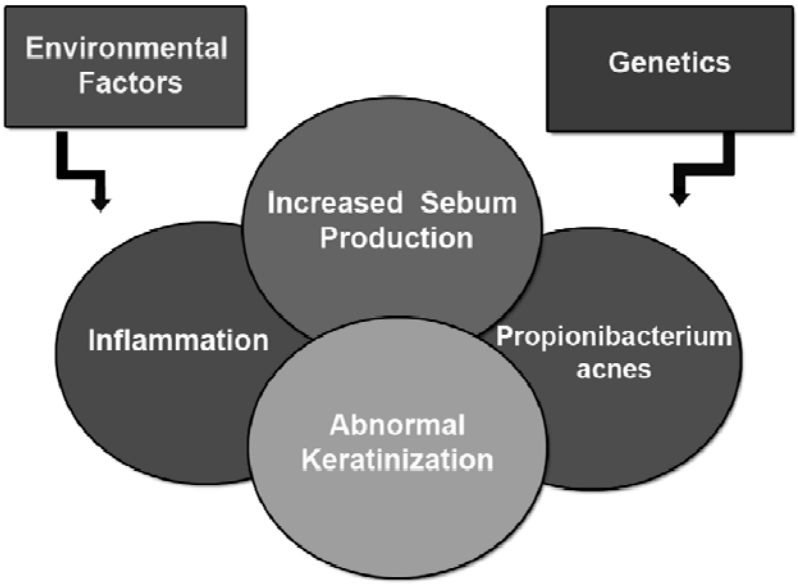
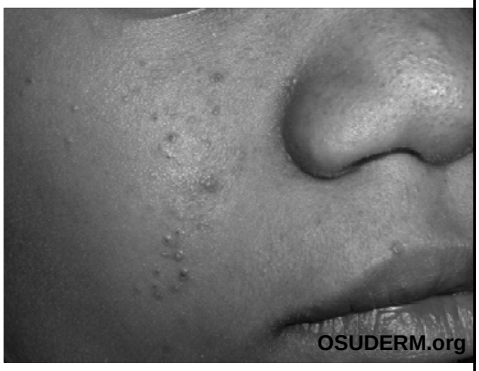
Pathogenesis of acne.



Non-inflammatory acne

- abnormal keratinization
- increased sebum production



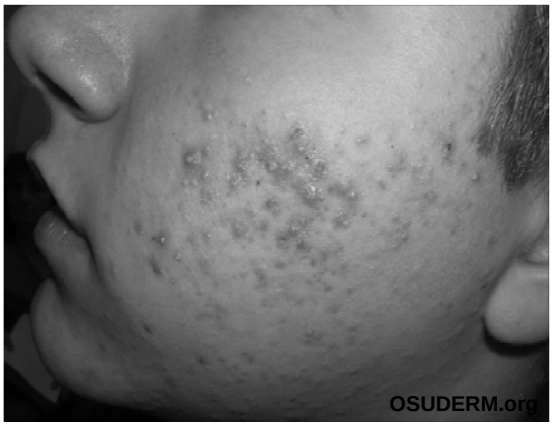
Open <u>comedones</u> = blackheads
Closed <u>comedones</u> = whiteheads

Non-inflammatory acne

- **<u>Treatment:</u>**

- ****Retinoid****
  - **Adapalene**
  - **Tretinoin**
  - **Tazarotene**
- **Benzoyl peroxide wash or gel**
- **Salicyclic acid**

Inflammatory Acne



Pathogenesis:

- Abnormal keratinization
- Increased sebum production
- Inflammation
- P. acnes

Lesions:

- Papules
- Pustules
- Nodules
- Cysts

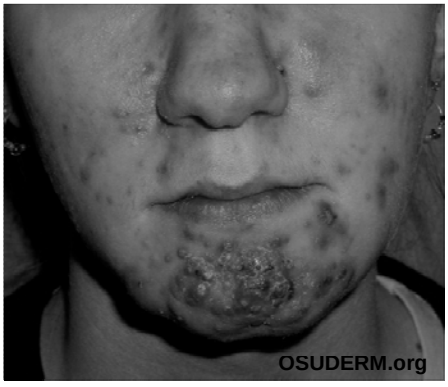
Inflammatory acne

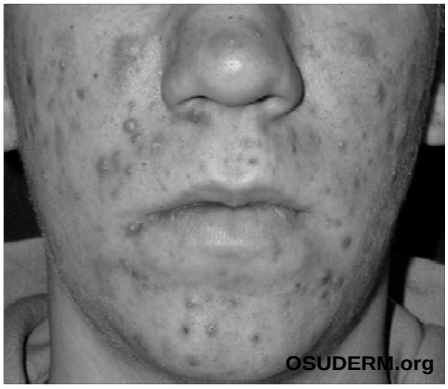
- <u>Treatment</u> – target all causes!
- "Triple therapy"

1. Antibiotics
   - Doxycycline 100mg PO BID
   - Minocycline 100mg PO BID
   - Minimize course to 3-6 months
2. Retinoid
3. BPO

SPECIAL CASES

Inflammatory acne - severe





- Nodules > 0.5cm in diameter and depth
- Cysts
- Scars

Severe inflammatory acne

Treatment

- **Isotretinoin**
  - **Synthetic Vitamin A Derivative**
  - **Highly teratogenic – controlled by gov't**
  - **Numerous A/E:**
    - **Xerosis**
    - **Hyperlipidemia**
    - **? depression/suicide**
    - **? IBD**
  - **Send to derm if not part of Ipledge program**

Inflammatory acne – adult female "O" distribution

Treatment:

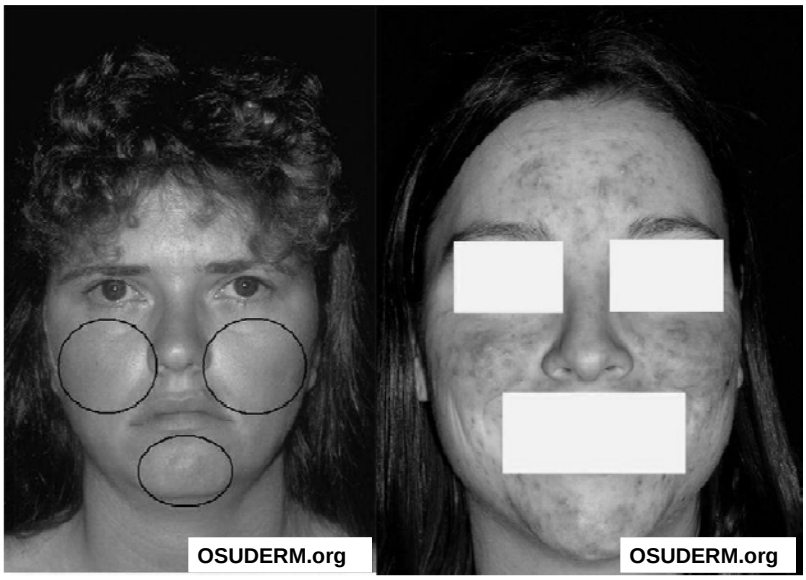
- **Hormonal therapy**
  - **OCPs**
    - **3 "approved"**
    - **Reality: all likely work,**
      - **Ideally pick one w/ low androgenic progestin**
      - **(norgestimate, desogestrel, drospirenone, 3rd gen progestins)**
  - **Spironolactone (off-label)**
    - **Blocks androgens**
    - **Dose: 50mg BID, can increase to 100mg PO BID**
    - **S.E.: Breast tenderness, irreg periods, headache, feminization of male fetus**

Acne pearls

- **Biggest cause of treatment failure: Poor compliance**
- *** Counsel – takes 2-3 months for therapy to work!**
- **Diet and acne…..the jury is still out**

ROSACEA

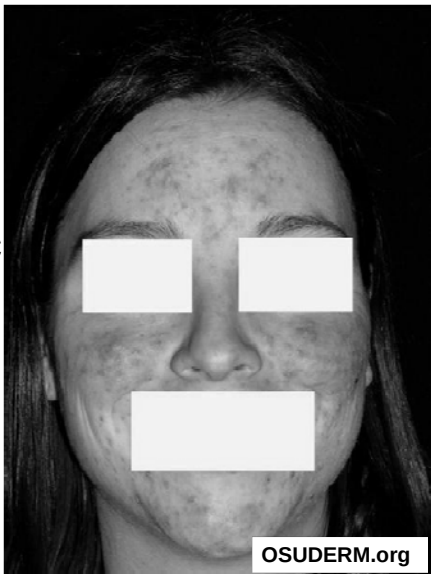
Rosacea



Rosacea

4 Types:

1. **Erythrotelangiectatic**
2. **Papulopustular**
3. **Phymatous**
4. **Ocular**

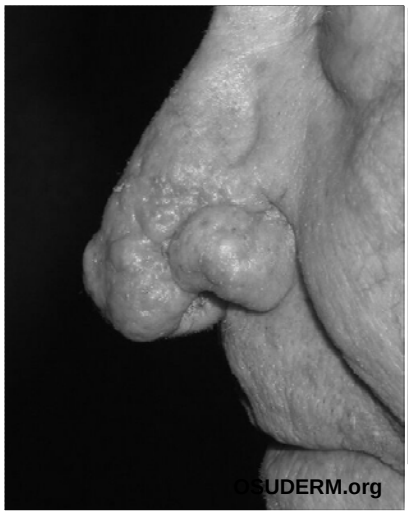


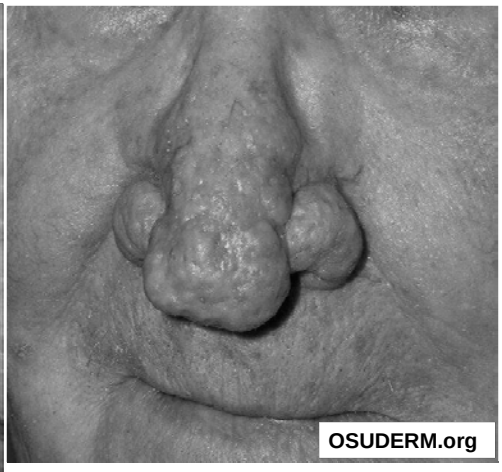
Rosacea

Treatment:

1. **Erythrotelangiectatic**
   - **Aug 2013: Brimonidine topical gel, 0.33%**
     - **Alpha-2 adrenergic agonist**
2. **Papulopustular**
   - **Metrogel or metrocream**
   - **Oral doxycycline (off-label)**
     - **Anti-inflammatory dosing**
3. **Ocular**
   - **Oral doxycycline (off-label)**
4. **Phymatous**
   - **Surgery/ Shaw scalpel**

Rhinophyma



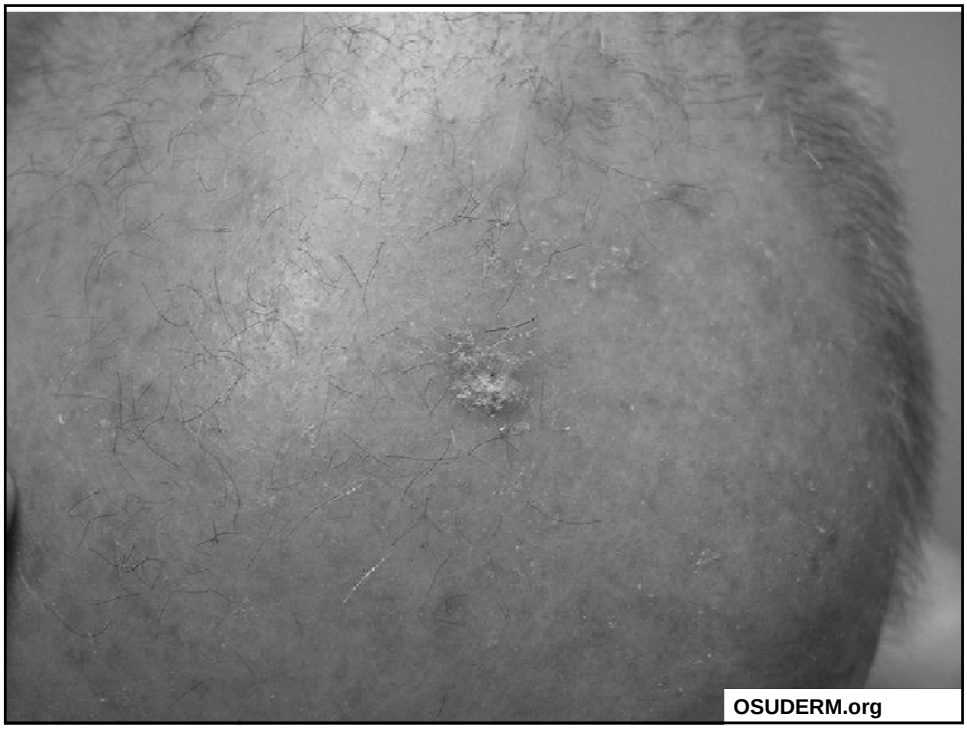


Rosacea pearls

- **Anti-inflammatory dosing of doxycycline**
  - **Doxycycline 20mg PO BID, 40mg PO daily, 50mg PO BID**
  - **Effective**
  - **Lower incidence of GI side effects**

- **Ask about eye symptoms**
  - **Dry, gritty eyes**
  - **Need oral doxycycline**

ACTINIC KERATOSES



Actinic Keratoses

Treatment:

- **Cryotherapy**
- **“Field therapy”: 5-fluorouracil, imiquimod, diclofenac**
- **New therapy: ingenol mebutate**
  - **Intracellular protein kinase C agonist → cellular necrosis**
  - **Also immunostimulatory → get cytotoxic Ts against dysplastic cells**
  - **Face 0.015% x 3 days, Trunk/extremities 0.05% x 2 days**
  - **Face/scalp: 83% median reduction, Trunk: 75% median reduction**

Actinic keratoses pearls

- **Don’t need to treat them all – treat bothersome areas**
- **Field therapy – can be difficult esp for elderly pts**

IMPETIGO

Impetigo

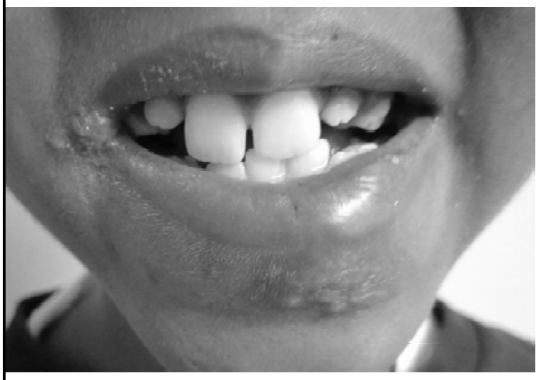


Photo from J.Kaffenberger

- Most common: S. aureus
- "Honey-colored" crusts more than pustules
- More superficial than ecthyma
- More likely in kids w/ atopic derm

Treatment:

- Topical antibiotic, antibacterial wash
- More severe: oral antibiotic (cephalexin)

When to consult your local dermatologist?

Managing the "STAT acne consult"

Common rashes in primary care Part 2:

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Objectives (I can Identify common patterns of)

1. Dermatitis/Eczemas
   - A. Atopic Dermatitis
   - B. Asteatotic eczema (Eczema craquele)
   - C. Allergic/Irritant Contact Dermatitis
   - D. Stasis Dermatitis
   - E. Dermatophyte infections
   - F. Tinea Versicolor
   - G. Scabies
2. Urticaria
3. Hidradenitis Suppurativa
4. Severe cutaneous adverse reactions from drugs

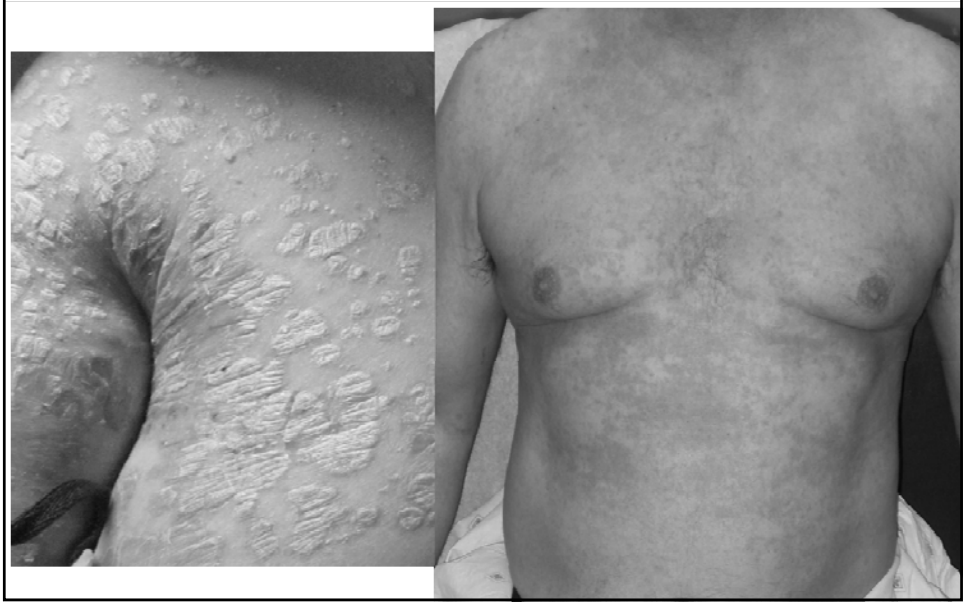
Topical Steroids You need to know

Low: Hydrocortisone 2.5% crm/oint

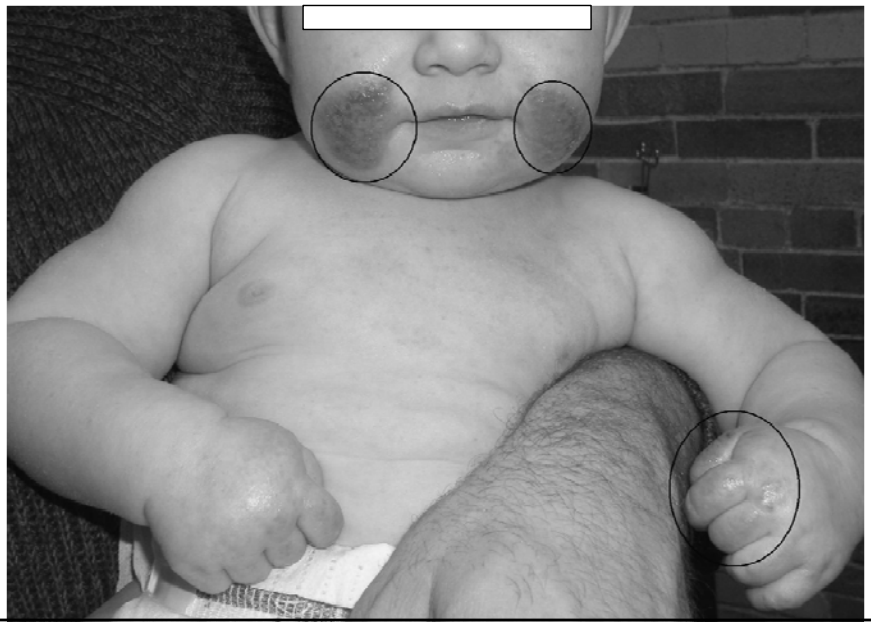
Medium: Body – Triamcinolone 0.1% crm/oint

High Potency: Body, thick plaques – Betamethasone dipropionate augmented 0.05% crm/oint/lot

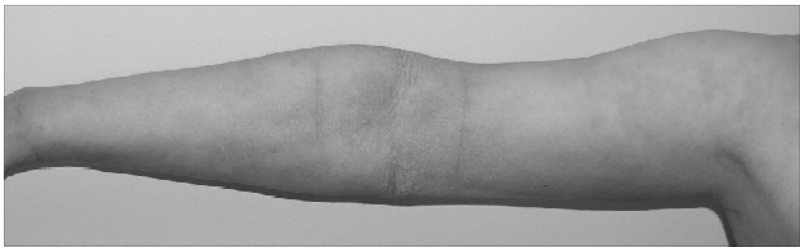
Psoriasis ←→ Atopic Dermatitis

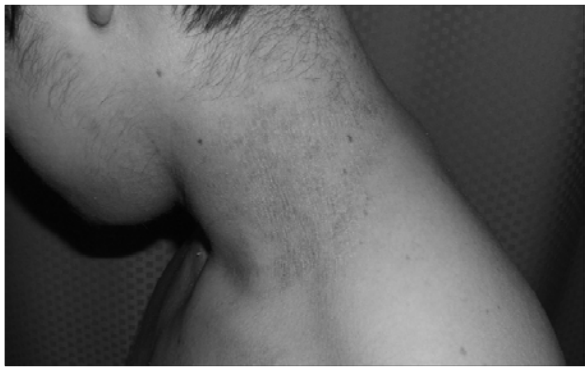


Atopic Dermatitis



Childhood Atopic Dermatitis

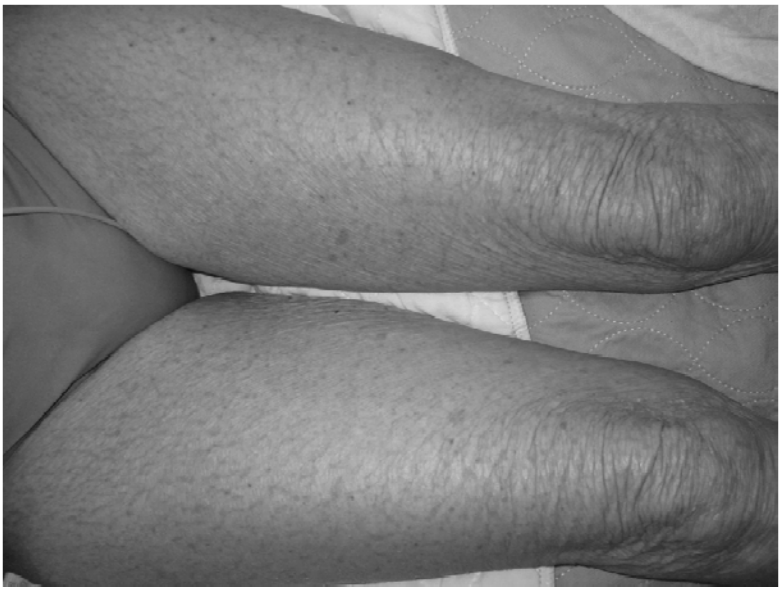




Treatment of Atopic Dermatitis (AD)

- **Moisturization (most important)**
- **Avoid triggers (food allergens, infections, airborne allergens)**
- **Antihistamines**
- **Topical steroids**
- **For severe disease:**
  Send to dermatologist!

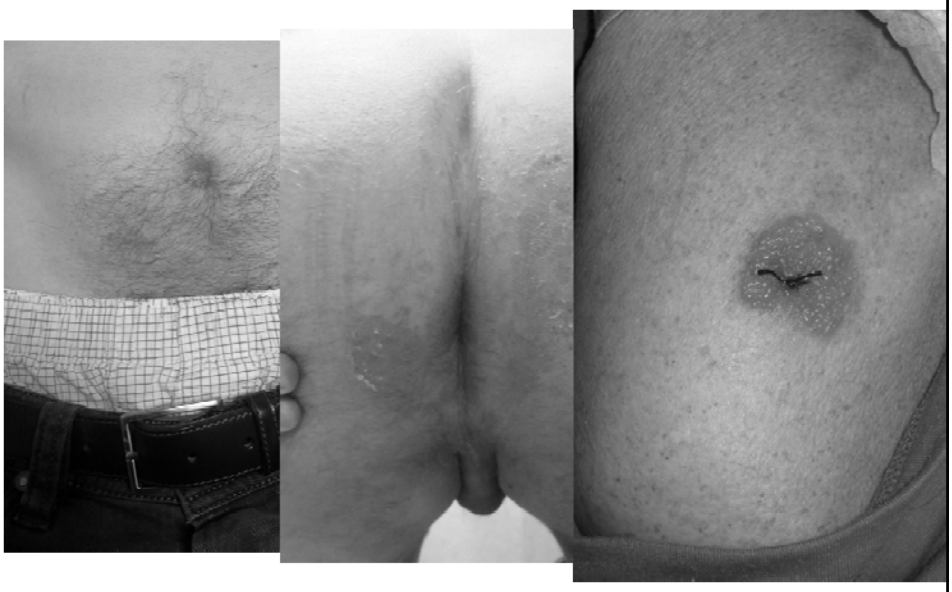
Asteatotic Eczema – Eczema craquele



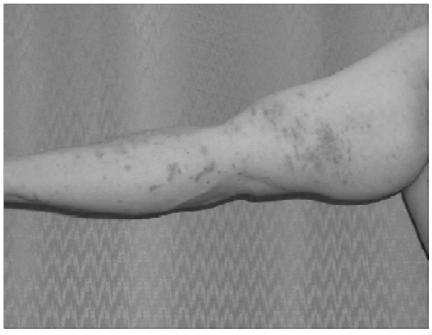
Asteatotic Eczema

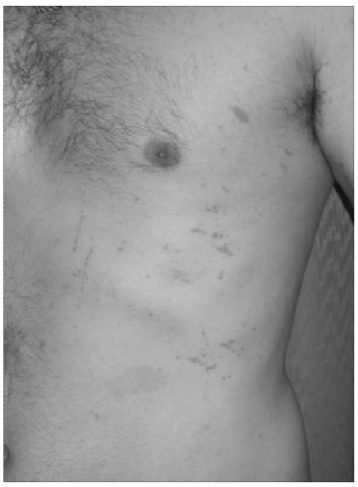
- Always elderly patients
- Always on the legs
- Worst in the wintertime
- Best treatment moisturization (ammonium lactate although triamcinolone can be beneficial initially)

Contact Dermatitis



Contact Dermatitis – Poison Ivy

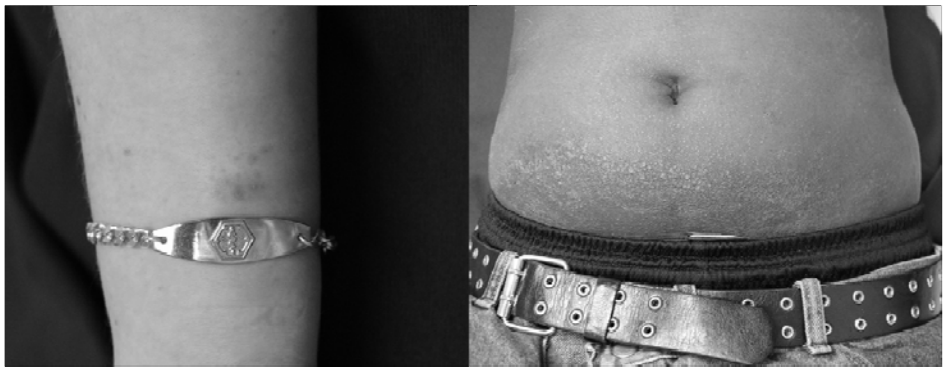




Contact Dermatitis – Poison Ivy Toxicodendron radicans.

- Very common, probably 75% of the population is sensitized
- “Streaky Dermatitis”
- New spots can appear for days after rash starts
- Blister fluid does not spread the rash
- Treat with 3 weeks of prednisone if severe otherwise high-potency topical steroids

Contact Dermatitis – Nickel

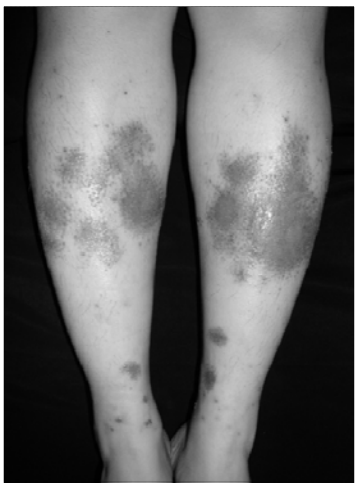


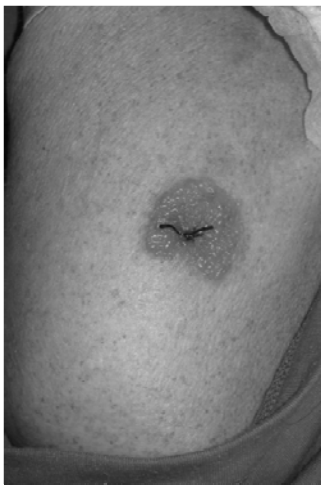
Contact Dermatitis – Nickel

- **Most common cause of chronic allergic contact**
- **Common sources of exposure:**
  - **Jewelry (earrings, watches, etc)**
  - **Clothing (belts, snaps, rivets, etc)**
  - **Coins, Keys, Eyeglasses**

  Internet for sources of nickel free jewelry

Contact Dermatitis – Triple Antibiotic ointment (neomycin or bacitracin)

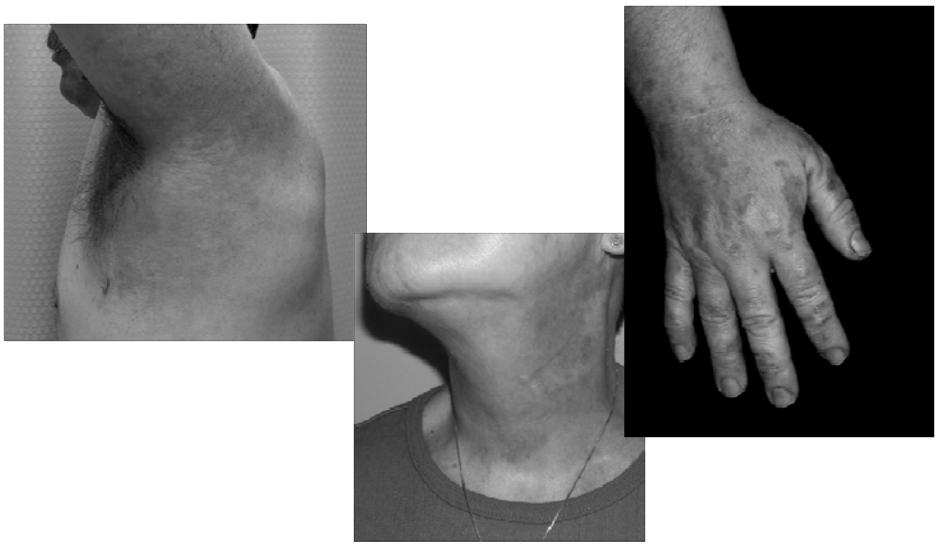




Contact Dermatitis - Neomycin

- Very common, up to 10% of the population is allergic
- Both Neomycin (most common cause of allergic contact dermatitis from topical medications) and Bacitracin
- - If a patient has used neomycin/bacitracin, have patient perform a “repeat open application test”

Contact Dermatitis – Fragrance and Preservatives

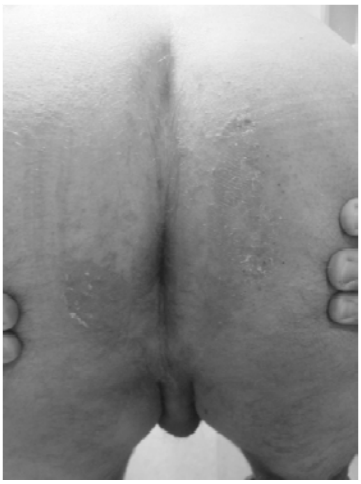


Contact Dermatitis – Fragrance and Preservatives

- Face, Neck, Hands
- Common exposures:

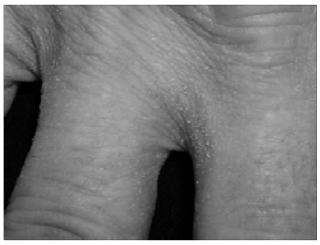
  Shampoo, soap, conditioner, hair products, moisturizer, perfume, deodorant
- Very difficult to avoid these substances as even products that say “hypoallergenic” or “dermatologist tested” often have fragrances
- Allergic patients only react to some fragrances and preservatives

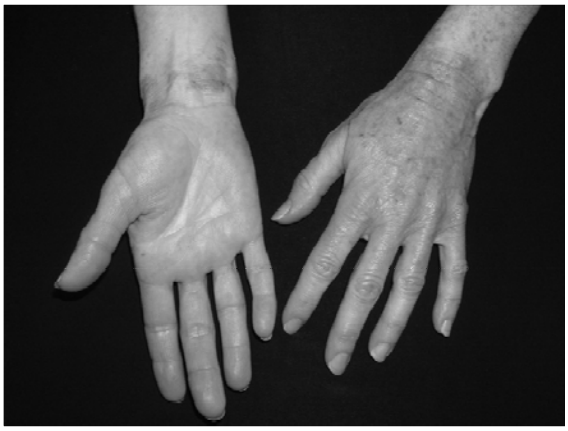
Contact Dermatitis – Perianal



- Ask about diarrhea and use of diaper wipes
- If using diaper wipes – stop and give high potency steroid

Irritant Hand Dermatitis





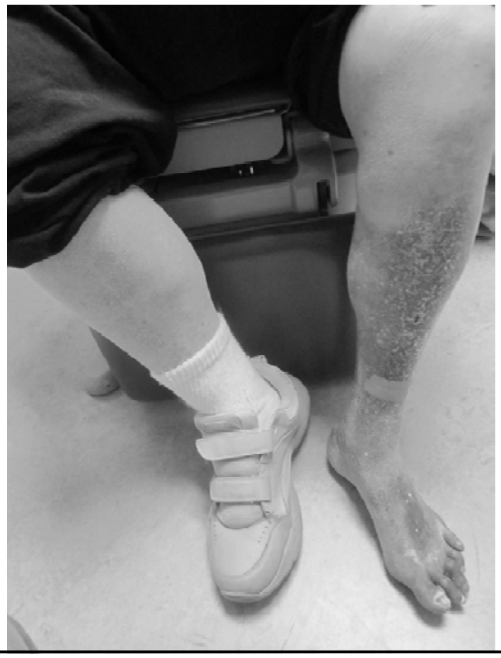
Irritant Hand Dermatitis

- **Most commonly due to repetitive exposure to soap and water**
- **Interdigital and dorsal hands**

- Ask about frequency of handwashing

- **Hand sanitizer is less damaging than soap**
- **Need thick ointment to protect**

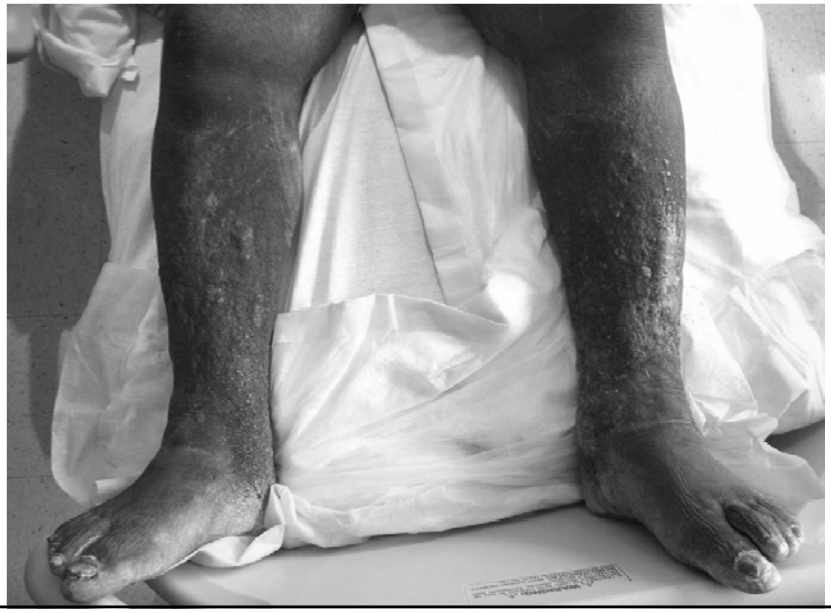
Stasis Dermatitis



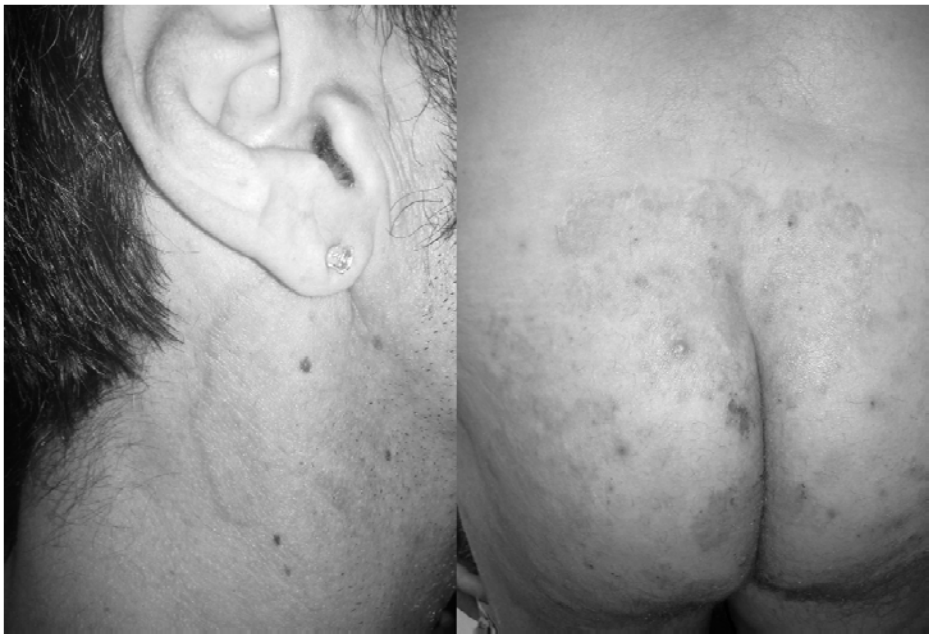
Stasis Dermatitis

- For mild cases, compression is key
- Predisposed by lower limb injury, surgery, obesity, lymphedema, and increased age
- May apply Triamcinolone underneath stockings
- Contact dermatitis is common

Lymphedema ->Stasis Dermatitis → Elephantiasis

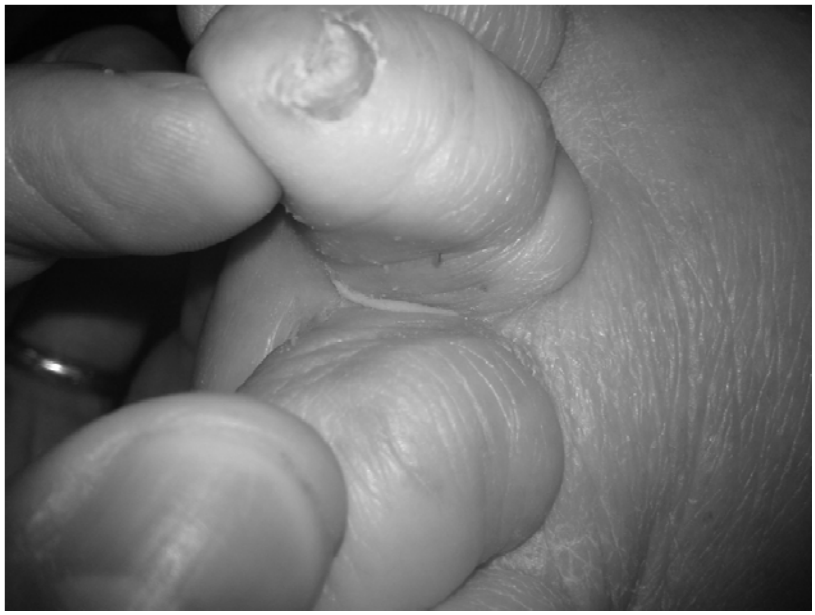


Tinea

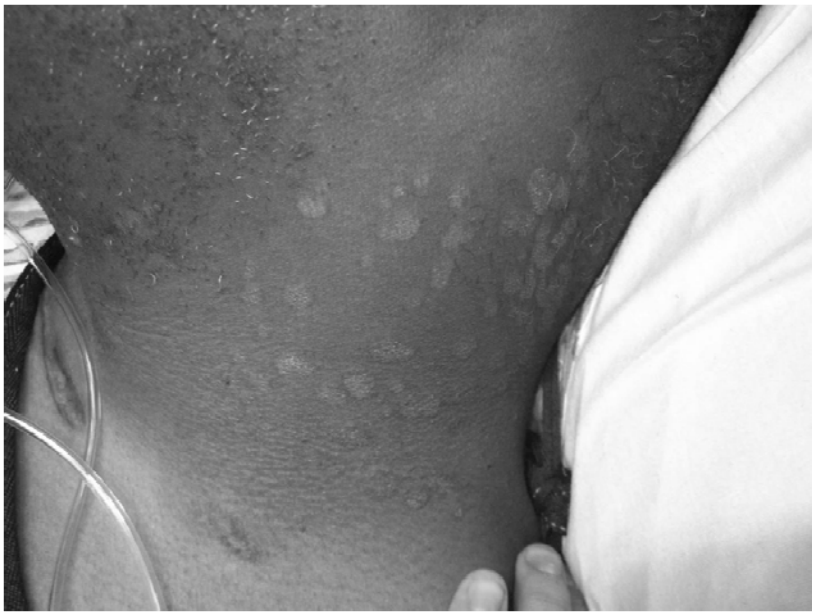


Tinea

- Look for annular/arcuate appearance
- Also look for interdigital scale, mild tinea pedis
- KOH examination or skin biopsy will confirm
- Treat with Ketoconazole 2% cream bid UNLESS features suggestive for hair-follicle involvement



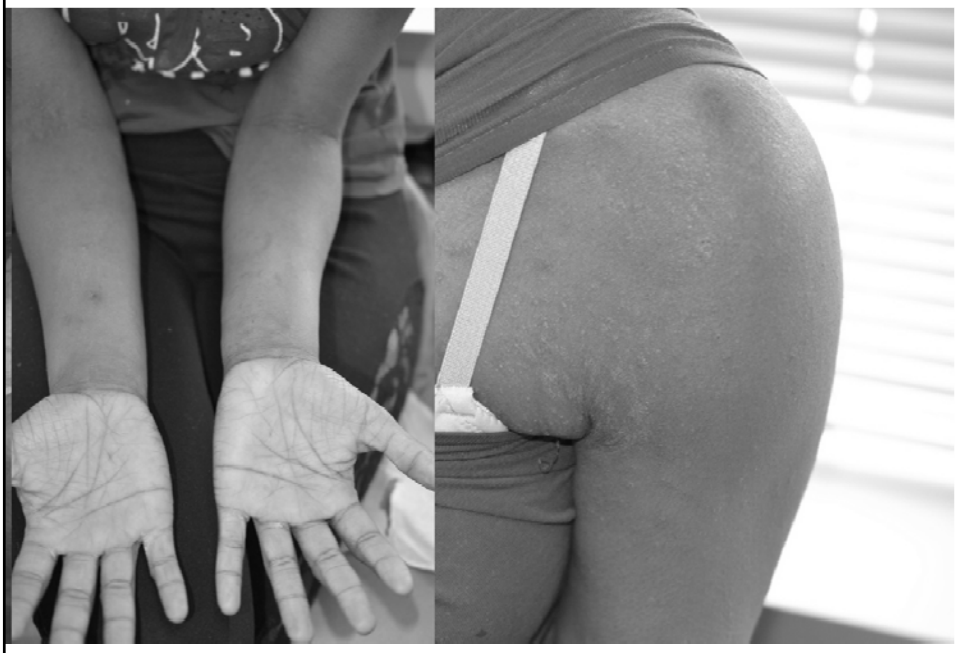
Tinea Versicolor



Tinea Versicolor

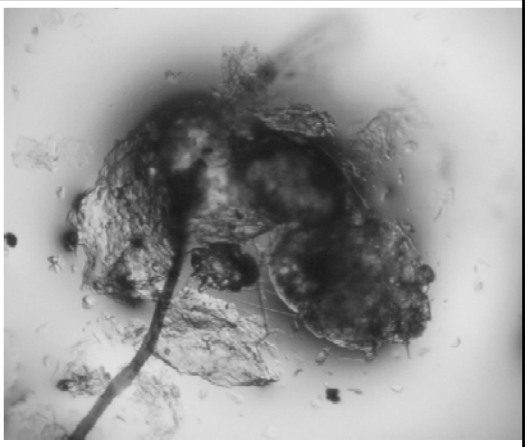
- **Upper body, summer time, young-adults, typically in humid environments**
- **Scrape with slide or fingernail, scaling can confirm it**
- **Treat: Fluconazole 300 mg x 2, 1 wk apart**
- **For maintenance, have patient use OTC dandruff shampoo (zinc pyrithione, selenium, or ketoconazole) as body wash tiw**

Scabies



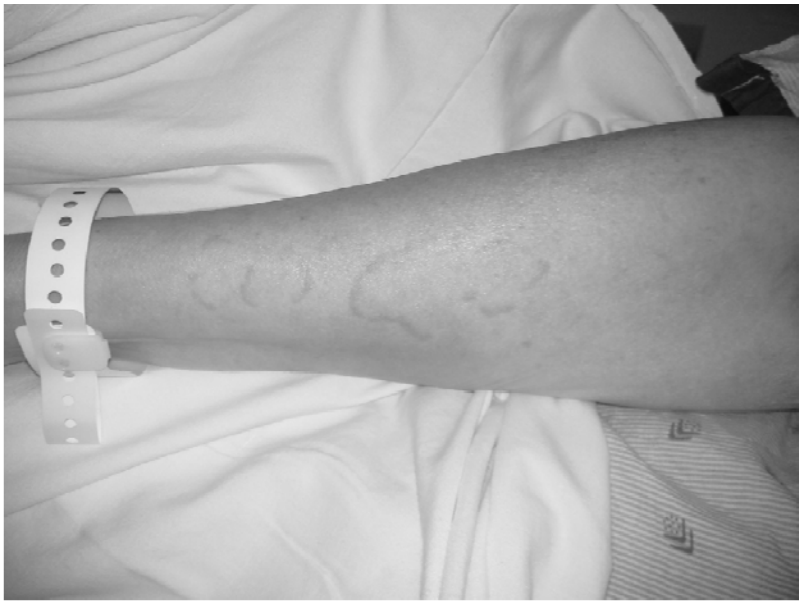
Scabies

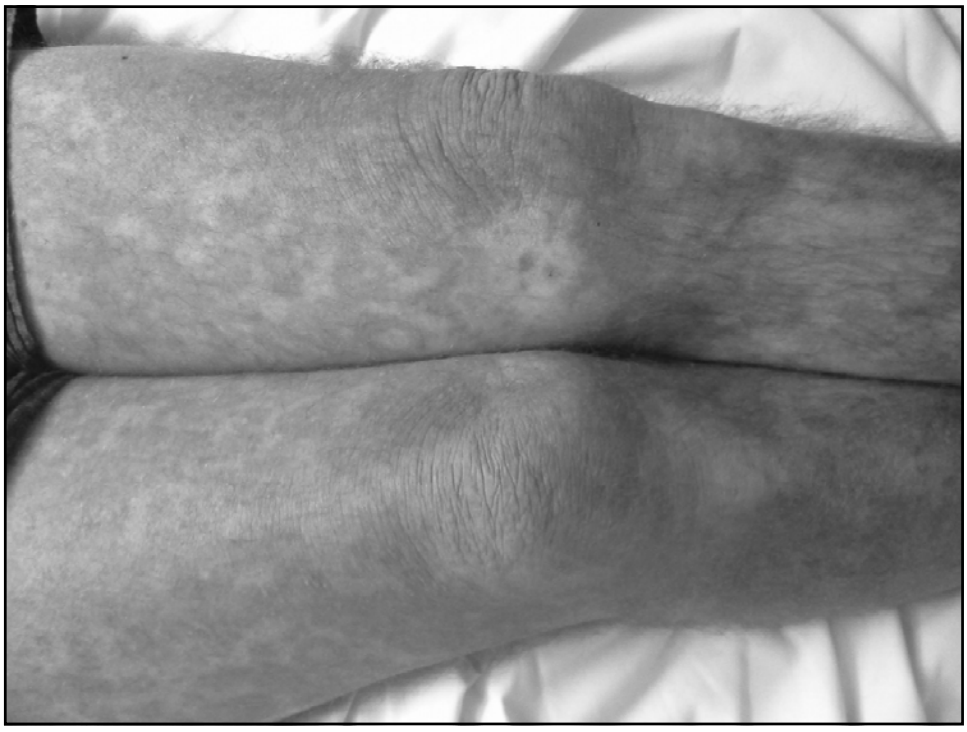
- Finger webs
- Antecubital fossa
- Axilla
- Breasts/Groin



- Permethrin (5%)! Neck down full body – Everyone in house
- Everything washed in a hot cycle the following AM

Urticaria

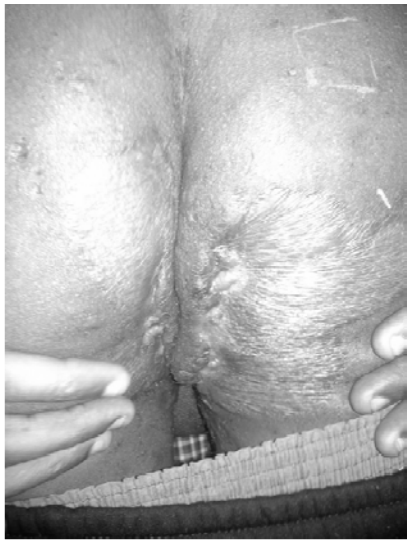


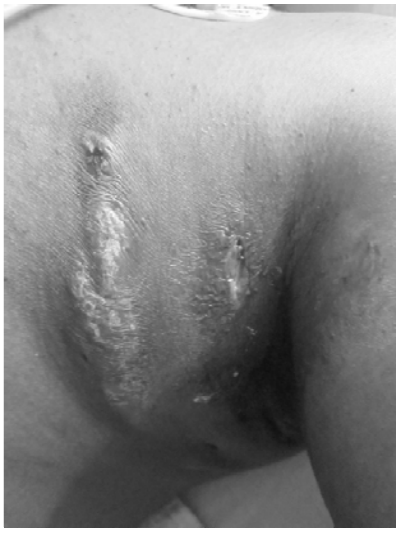


Urticaria

- Itchy, evanescent, and transient wheels
- *If greater than 24 hrs in one place, it is not urticaria!!
- Common causes include strep infections, drugs, hymenoptera envenomations
- Never scaly
- Titrate cetirizine (start 10 mg bid) for treatment

Hidradenitis suppurativa



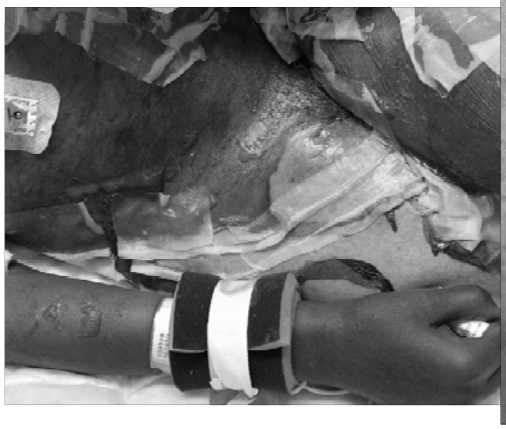


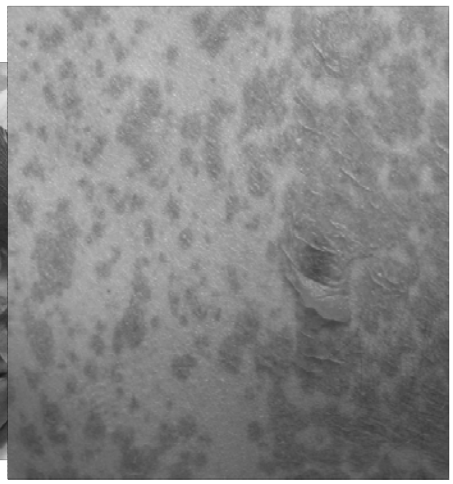
Hidradenitis suppurativa

- **Treatments:**

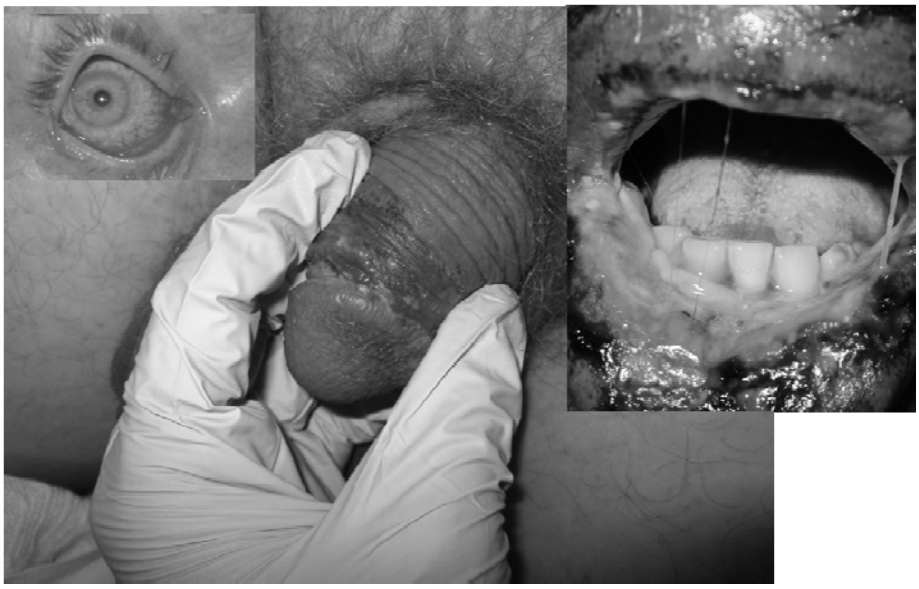
- **Topical acne treatments**
- **Weight loss**
- **Chronic antibiotics (Doxycycline 100 mg bid)**
- **??Adalimumab, infliximab?? Needs referral to dermatology.**
- **If severe and can't get into dermatology – consider referral to plastics/gen surg for excision and skin grafting**

Severe Cutaneous Adverse Reactions Stevens-Johnson Syndrome

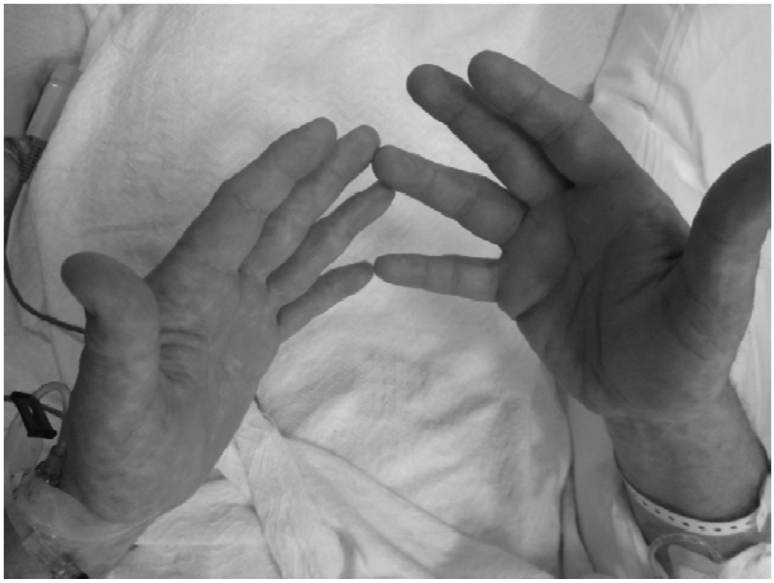




Stevens-Johnson Syndrome



Stevens-Johnson Syndrome



Stevens-Johnson Syndrome

- Acute death of epidermis due to exposure to a medication
- Key early finding is pain/involvement of multiple mucous membranes, followed by sloughing of the skin
- Usually within 1-3 weeks of starting med
- Aromatic Anticonvulsants, allopurinol, Sulfa, NSAIDS,
- High Mortality - Stop med, call dermatology/hospital with dermatology capabilities

Lastly – Bed Bugs or Cimex lectularius

C. Wayne Elliott Plant and Pest diagnostic center.

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Thanks Everyone