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

Jessica Kaffenberger, MD
Assistant Professor – Clinical
Division of Dermatology
The Ohio State University Wexner Medical Center

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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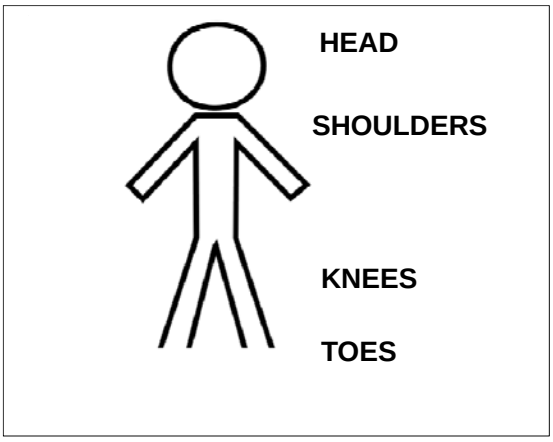
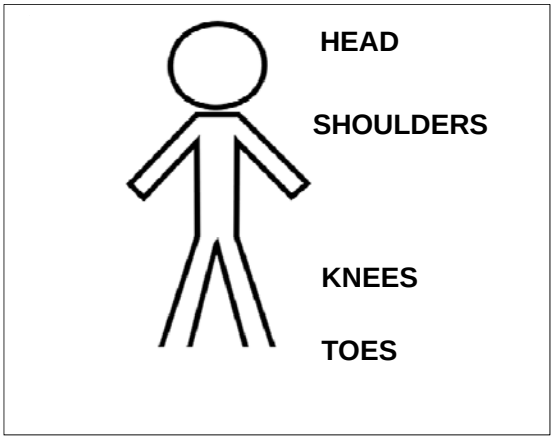


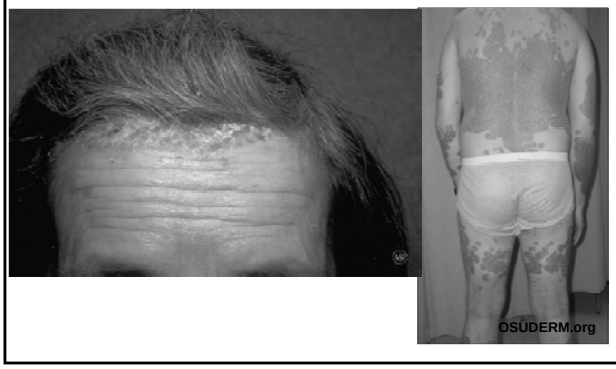


PSORIASIS

Psoriasis

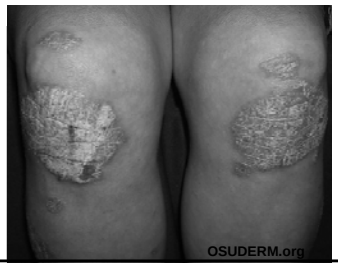
- Four Main types:
  - Plaque
  - Guttate
  - Pustular
  - Inverse
- Arthritis can be seen with any type

Plaque Psoriasis



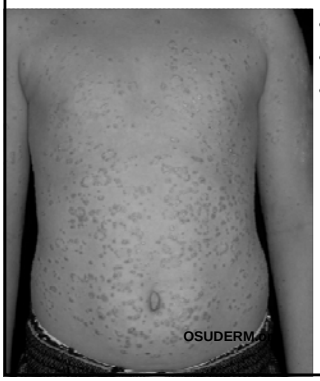
Plaque Psoriasis

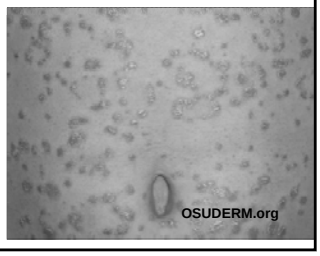
- Most common type
- Scalp, Elbows, Knees, Sacrum
- Usually itches



Guttate Psoriasis

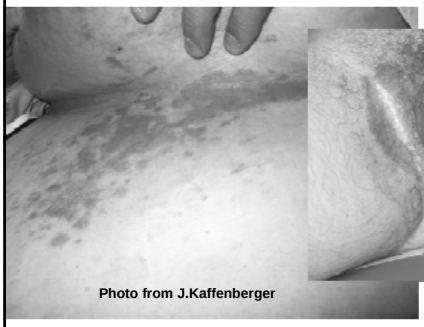
- More common in children
- Related to strep infections
- Trunk most involved
- May resolve spontaneously





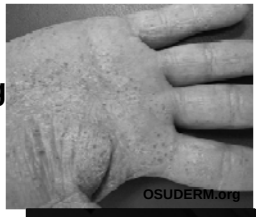
Inverse Psoriasis

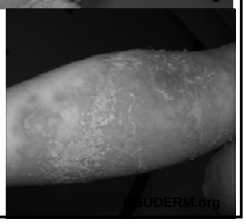
- Usually macerated – scale NOT visible



Pustular Psoriasis

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





Psoriasis

Treatment

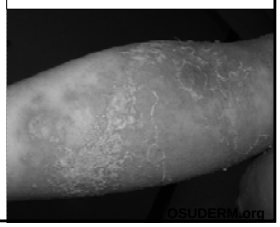
Topical

- 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)

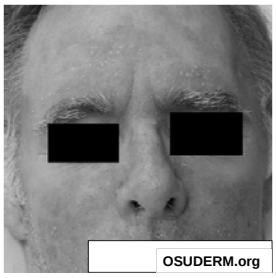
Other:
- Pustular pso: call derm
- AVOID systemic steroids – can cause severe flare when stopped



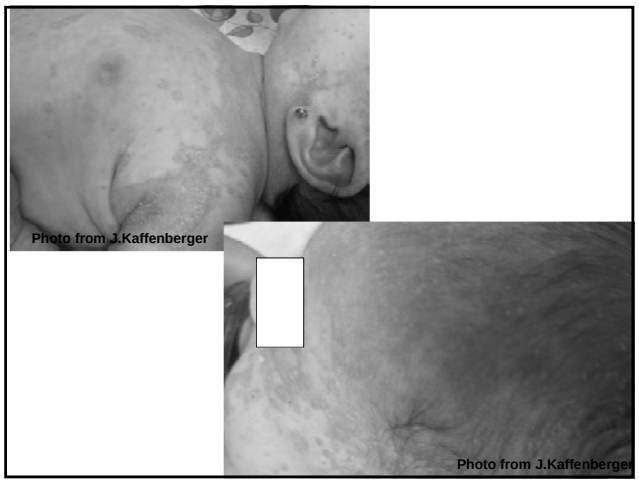
Psoriasis Pearls:

- 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

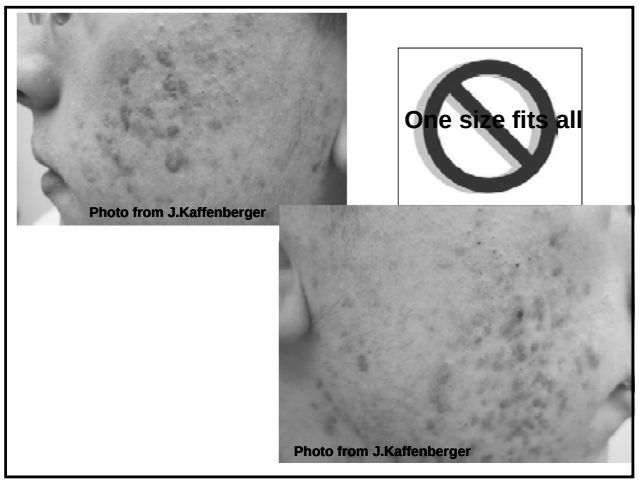
Treatment

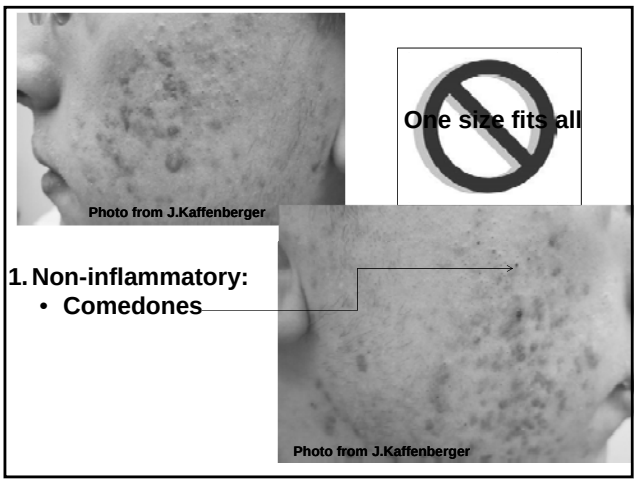
- **Zinc, selenium sulfide, or ketoconazole shampoos**
  - **Leave in for 3-5 min before rinsing**
  - **Use on side of nose and eyebrows too**
- **Scalp: Clobetasol solution**
- **Face: Intermittent (minimize use) hydrocortisone 1-2.5%, or tacrolimus/pimecrolimus**

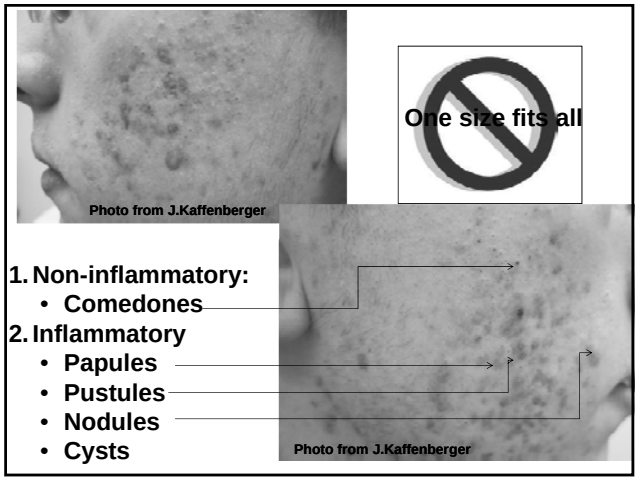
Seborrheic dermatitis pearls

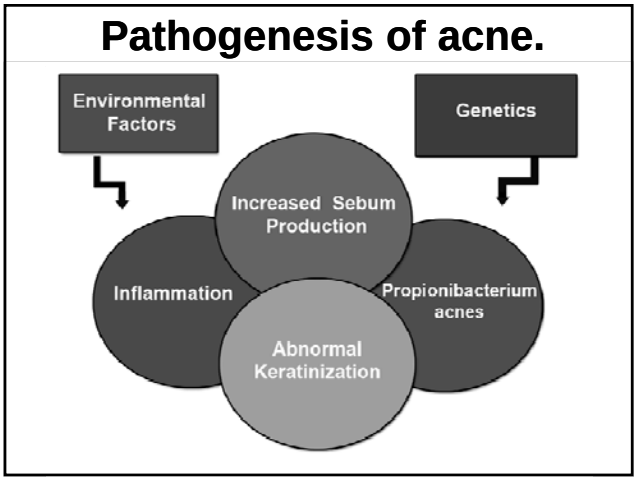
- **Manage expectations: can't cure, can control**
- **Assoc with Parkinson's and AIDs**
- **Can overlap with psoriasis "sebopsoriasis"**

ACNE


One size fits all
Photo from J.Kaffenberger
Photo from J.Kaffenberger

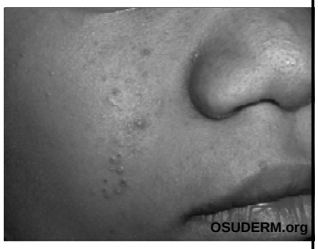

One size fits all
Photo from J.Kaffenberger
1. Non-inflammatory:
• Comedones
Photo from J.Kaffenberger


One size fits all
Photo from J.Kaffenberger
1. Non-inflammatory:
• Comedones
2. Inflammatory
• Papules
• Pustules
• Nodules
• Cysts
Photo from J.Kaffenberger


Pathogenesis of acne.
Environmental Factors
Genetics
Increased Sebum Production
Inflammation
Propionibacterium acnes
Abnormal Keratinization

Non-inflammatory acne

- abnormal keratinization
- increased sebum production

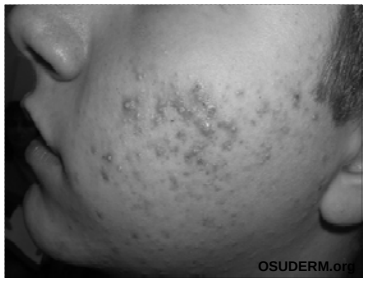


Open <u>comedones</u> = blackheads
Closed <u>comedones</u> = whiteheads

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"**

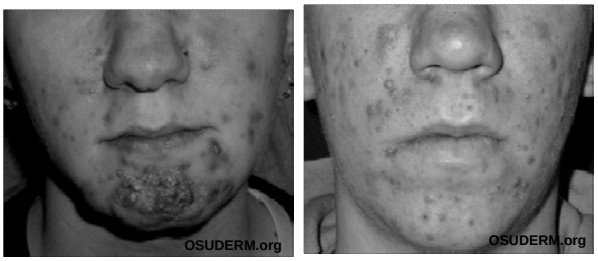
1. Antibiotics
- **Doxycycline 100mg PO BID**
- **Minocycline 100mg PO BID**
- **Minimize course to 3-6 months**

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:

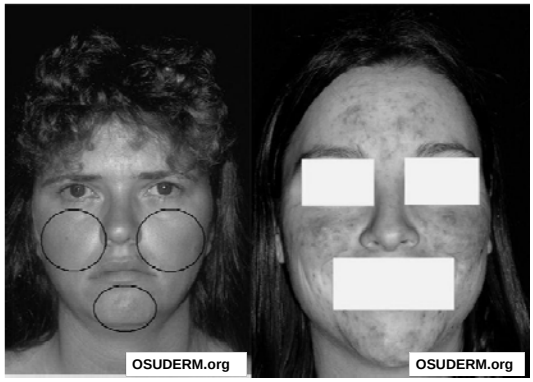
- Hormonal therapy
  - OCPs
    - 3 "approved"
    - Reality: all likely work,
      - Ideally pick one w/ low androgenic progestin
      - (norgestimate, desogestrel, drospirenone, 3rd gen progestins)
  - Spironolactone (off-label)
    - Blocks androgens
    - Dose: 50mg BID, can increase to 100mg PO 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

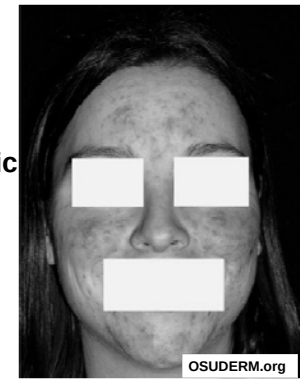
Rosacea



Rosacea

4 Types:

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

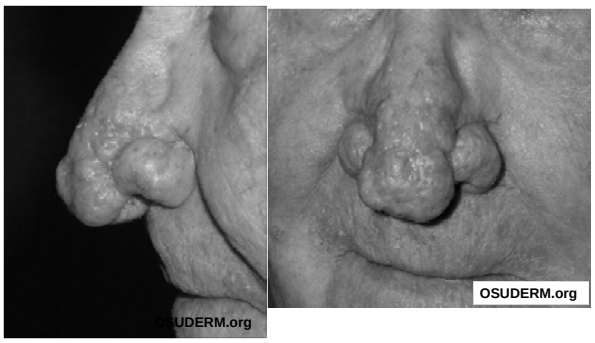


Rosacea

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

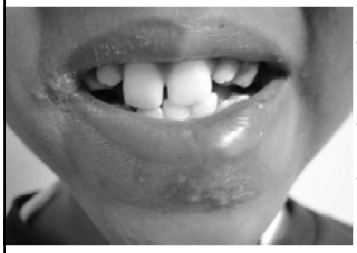


Photo from J.Kaffenberger

- 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:

Ben Kaffenberger, MD
Assistant Professor
Division of Dermatology
The Ohio State University Wexner Medical Center

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

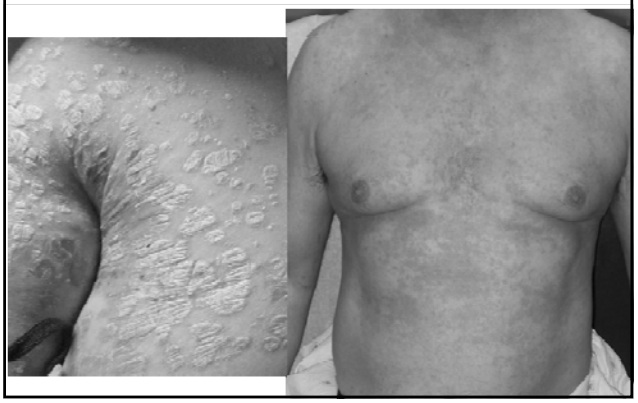
Topical Steroids You need to know

Low: Hydrocortisone 2.5% crm/oint

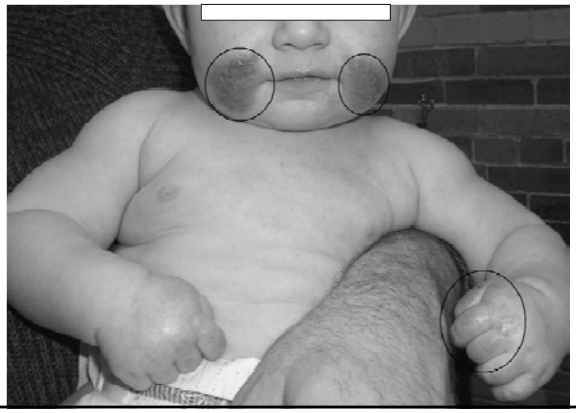
Medium: Body – Triamcinolone 0.1% crm/oint

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

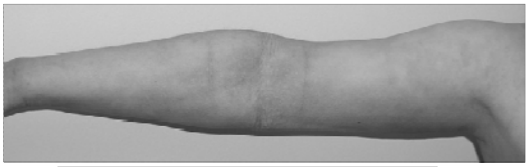
Psoriasis ←→ Atopic Dermatitis

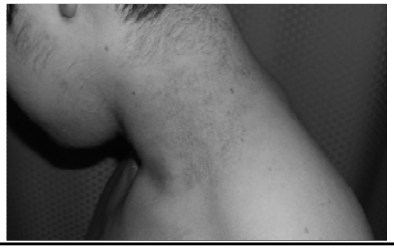


Atopic Dermatitis



Childhood Atopic Dermatitis

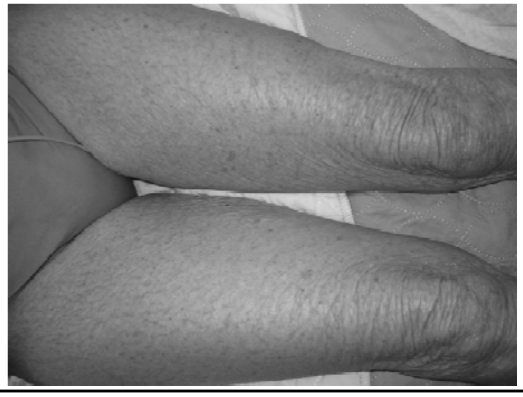




Treatment of Atopic Dermatitis (AD)

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

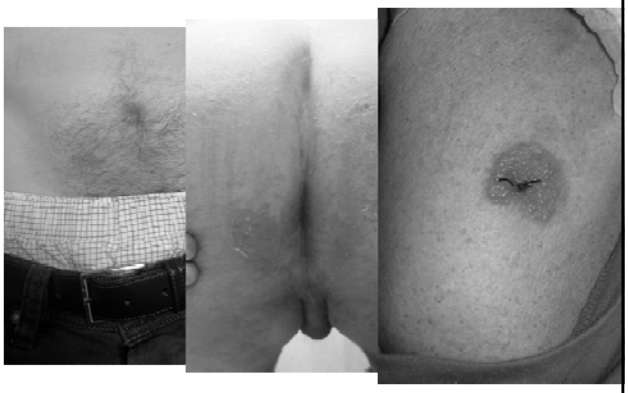
Asteatotic Eczema – Eczema craquele



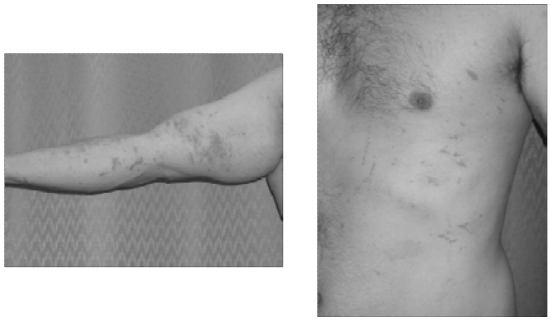
Asteatotic Eczema

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

Contact Dermatitis



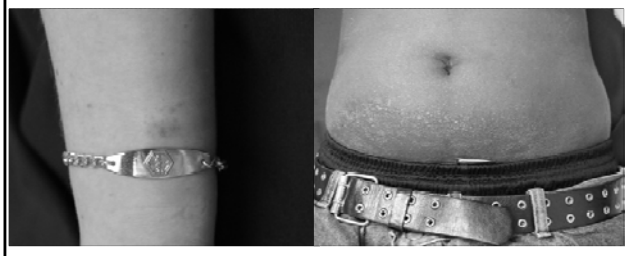
Contact Dermatitis – Poison Ivy



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

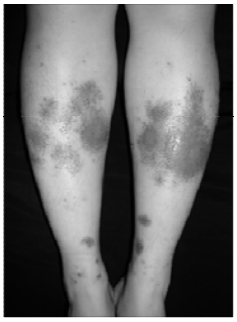


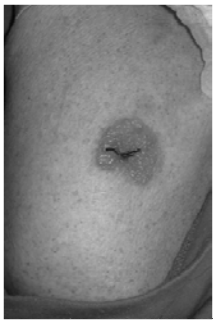
Contact Dermatitis – Nickel

- 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)

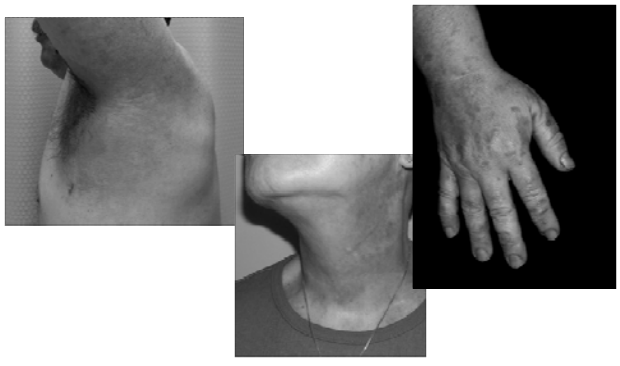




Contact Dermatitis - Neomycin

- 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”

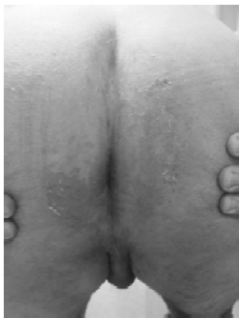
Contact Dermatitis – Fragrance and Preservatives



Contact Dermatitis – Fragrance and Preservatives

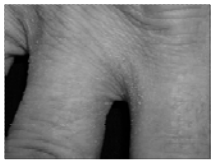
- Face, Neck, Hands
- Common exposures:
  Shampoo, soap, conditioner, hair products, moisturizer, perfume, deodorant
- Very difficult to avoid these substances as even products that say "hypoallergenic" or "dermatologist tested" often have fragrances
- Allergic patients only react to some fragrances and preservatives

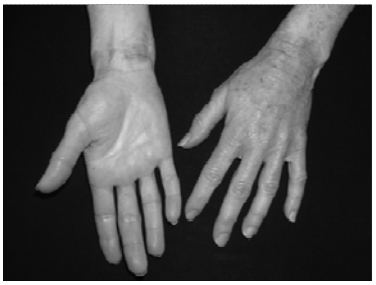
Contact Dermatitis – Perianal



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

Irritant Hand Dermatitis





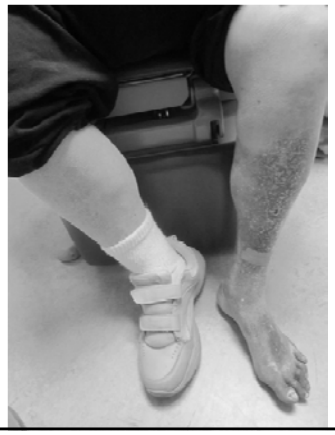
Irritant Hand Dermatitis

- 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

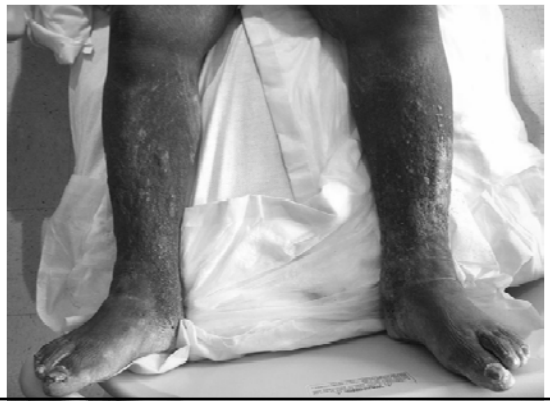
Stasis Dermatitis



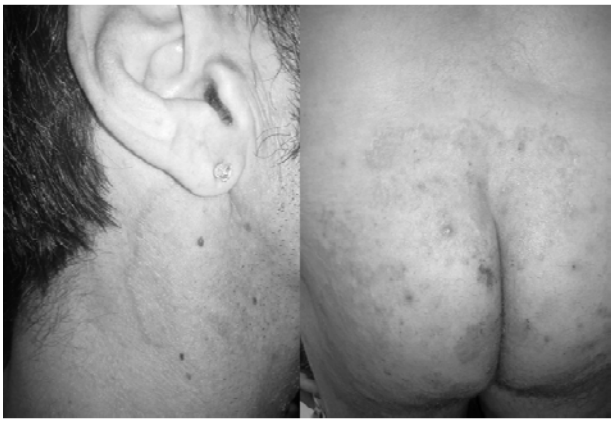
Stasis Dermatitis

- 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

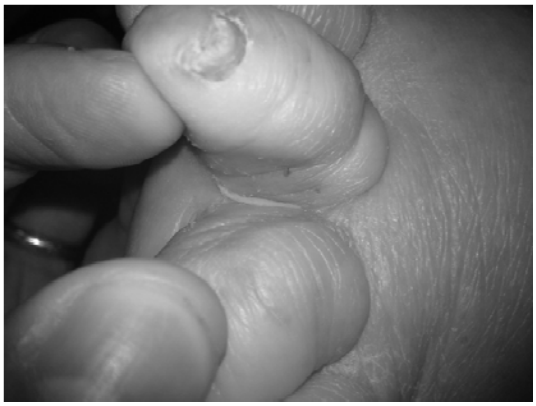


Tinea

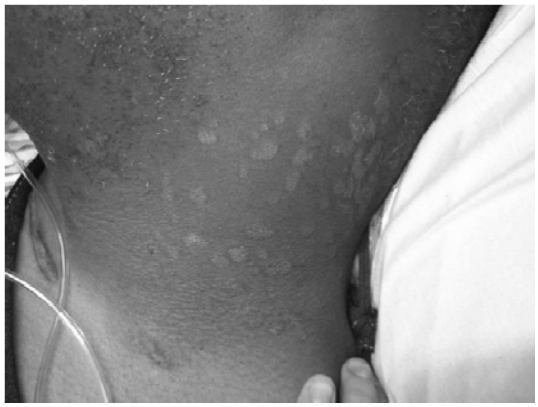


Tinea

- 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



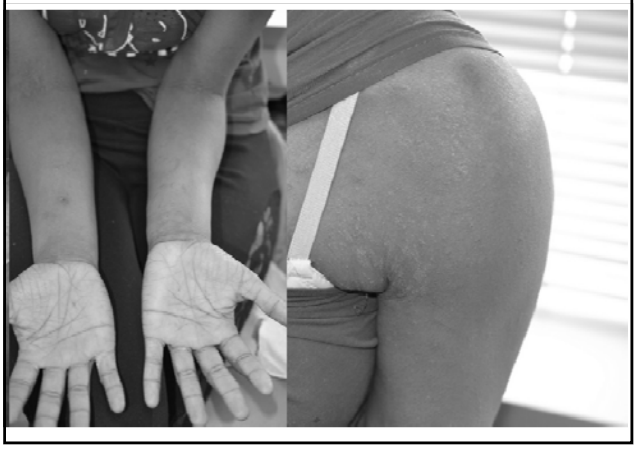
Tinea Versicolor



Tinea Versicolor

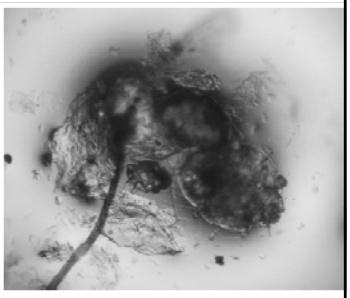
- Upper body, summer time, young-adults, typically in humid environments
- Scrape with slide or fingernail, scaling can confirm it
- Treat: Fluconazole 300 mg x 2, 1 wk apart
- For maintenance, have patient use OTC dandruff shampoo (zinc pyrithione, selenium, or ketoconazole) as body wash tiw

Scabies



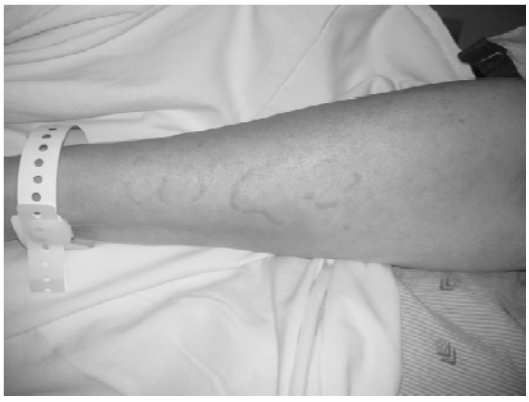
Scabies

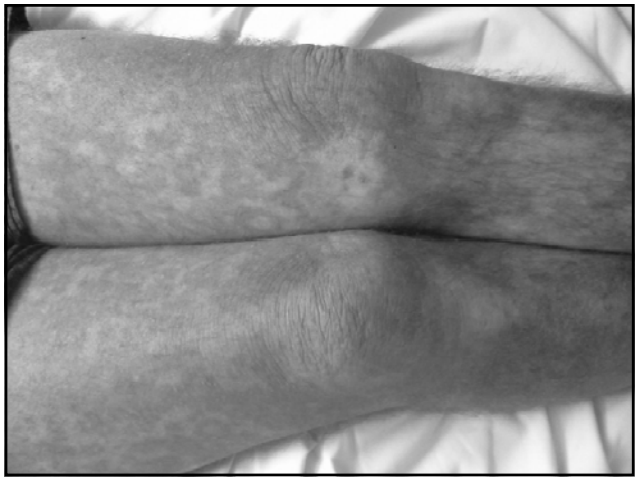
- Finger webs
- Antecubital fossa
- Axilla
- Breasts/Groin



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

Urticaria

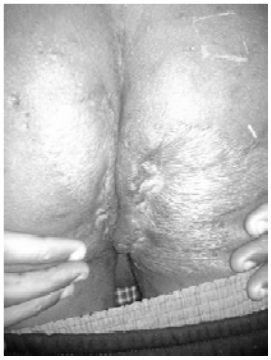
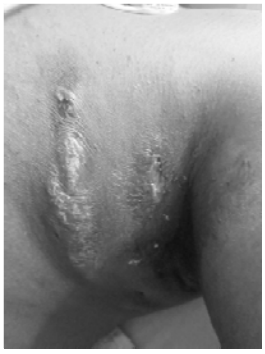




Urticaria

- 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

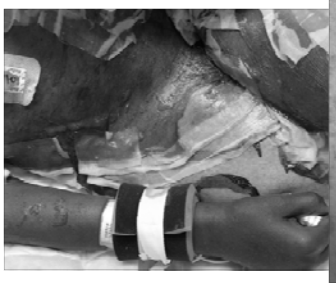
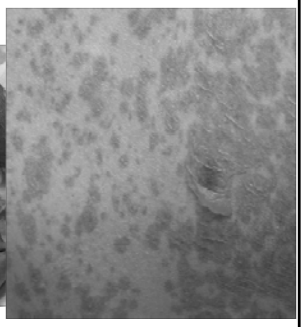
Hidradenitis suppurativa

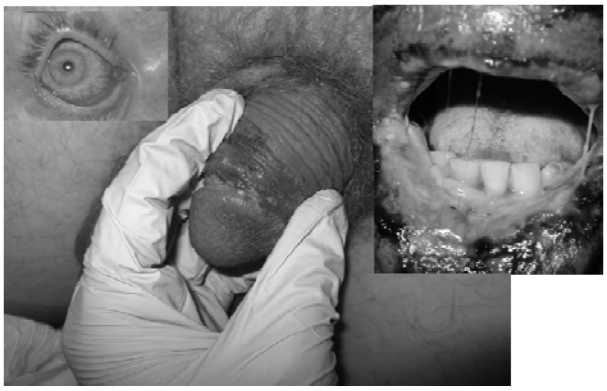
Hidradenitis suppurativa

- 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

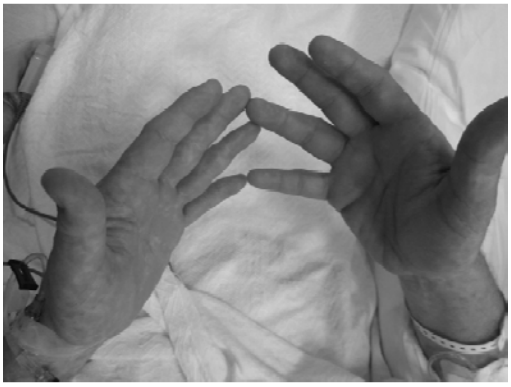
Severe Cutaneous Adverse Reactions Stevens-Johnson Syndrome

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.

- ppdc@cfaes.osu.edu, 614-292-5006

Thanks Everyone