



SCHOOL NURSE
Workshop

Dermatology Basics for the School Nurse

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Children's
of Alabama®



Dermatology Basics for the School Nurse



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Upcoming Pediatric Dermatology Fellow at Emory University

Agenda

1. Recognize hives, common causes, and how to treat them
2. Impetigo, cellulitis, abscesses, and hidradenitis
3. Bites and infestations
4. Burns and how to treat them
5. Common lumps and bumps to recognize that are benign (i.e. molluscum, warts)
6. Discuss other common rashes that occur in the pediatric population



Urticaria (Hives)



Urticaria

Acute <6 weeks

Chronic >6 weeks, **should see dermatologist**

- Circular papules and plaques that migrate over a period of hours
- Viral infections (GI or URI), medications, foods (usually associated with diarrhea, other signs of a systemic reaction), insects
- Treatment includes non-sedating anti-histamines (safe to use up to 4 x dosage as directed by a physician) combined with sedating antihistamines (short acting)
- Swelling of the tongue, face, or trouble breathing



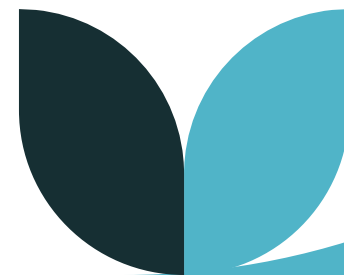


Source: R.P. Usatine, M.A. Smith, E.J. Mayeaux, Jr., H.S. Chumley
The Color Atlas and Synopsis of Family Medicine, Third Edition
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Impetigo

- Blistering and non-blistering form, yellow colored crust
- Caused by staph or strep bacteria and is contagious
- Limited – topical antibiotic mupirocin ointment
- Wide spread – oral antibiotic by PCP or dermatologist
- May happen in isolation or in association with eczema (can be a cause of worsening eczema flare, more scratching, oozing, cracking)

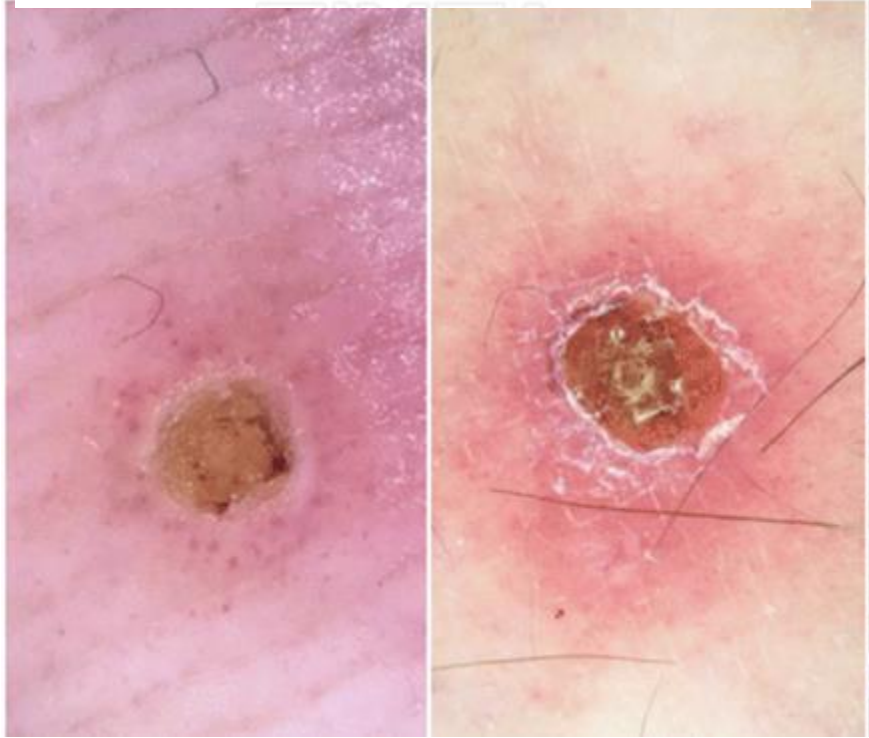
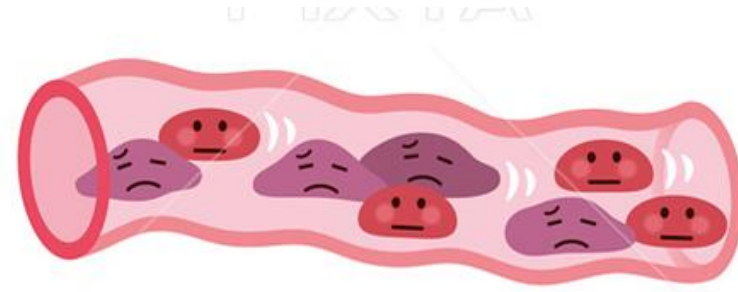




Cellulitis

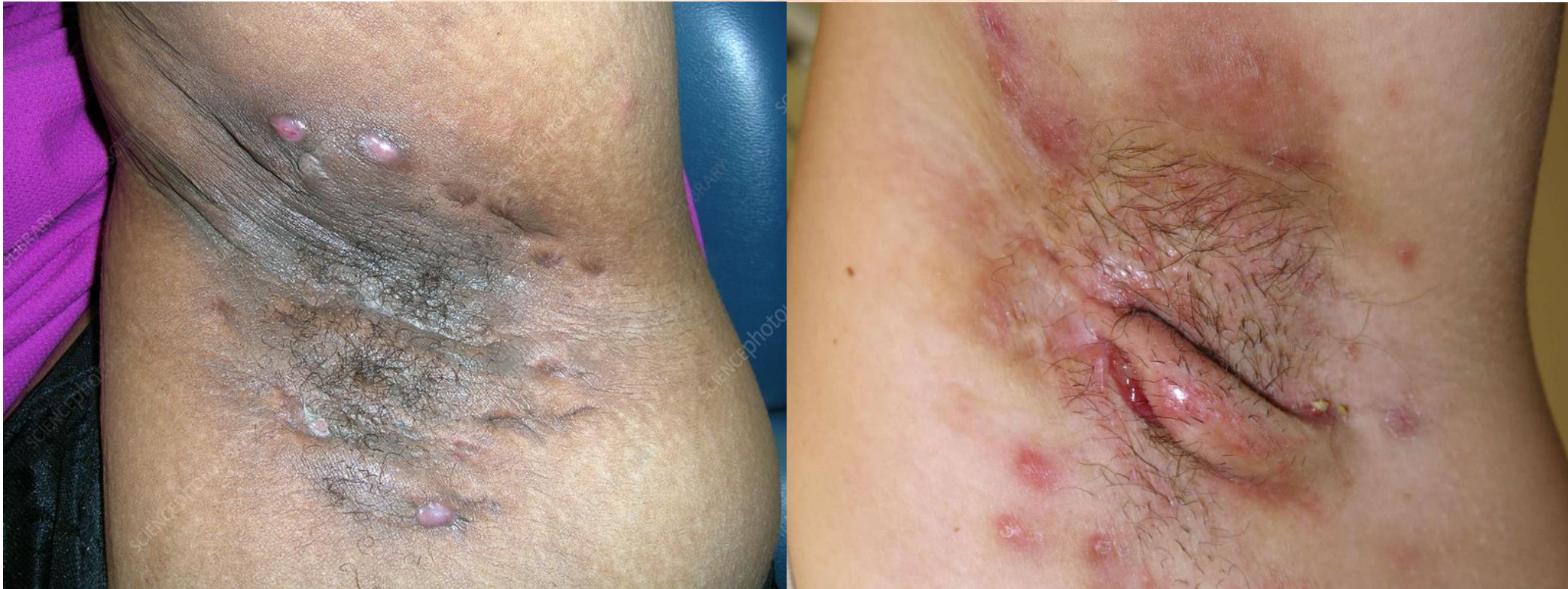
- Bacterial infection deeper in the skin
- Causes confluent and broad expanding redness (greater than ½ inch beyond wound)
- Can happen after break in the skin – some redness during healing is normal
- Things that are not normal – warmth, blistering, discolored drainage, progression despite oral antibiotics







Abscesses – single or recurrent?





Anyone with 2 or more boils “recurrent” in these locations should see a dermatologist



Hidradenitis Suppurativa

- Autoinflammatory condition of the apocrine glands causes recurrent boils
- Armpits, groin, buttocks, under breasts
- Patients may need to wear protective pads to prevent leakage onto clothing
- Might be helpful to store some of these products for patients if they need to change dressings throughout the day
- We manage with topical and oral antibiotics as well as systemic medications that target the immune pathway that causes inflammation



Bites

- Single bites – mosquito, sting, tick, spider
- Multiple small bites – mosquitos (multiple, papular urticaria), fleas, mites, bed bugs

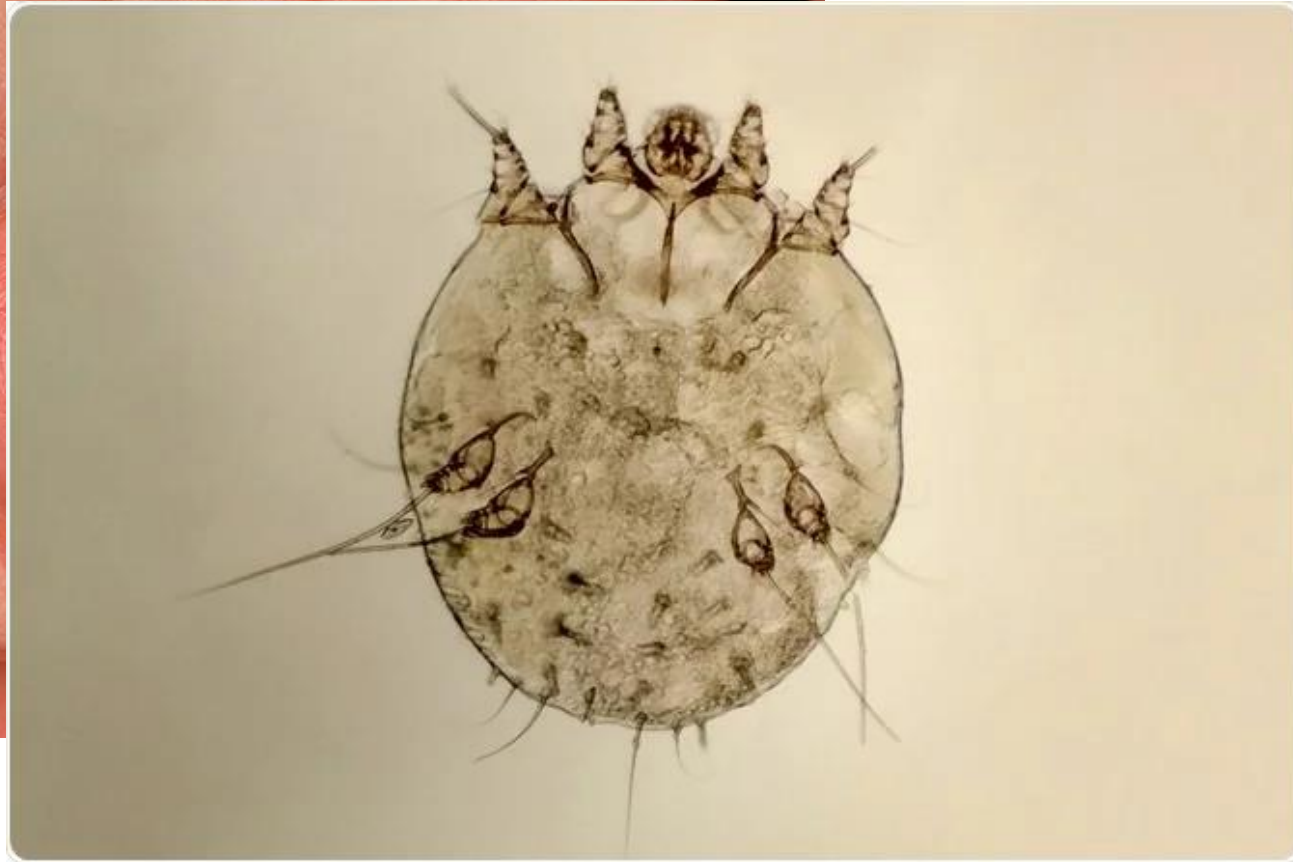






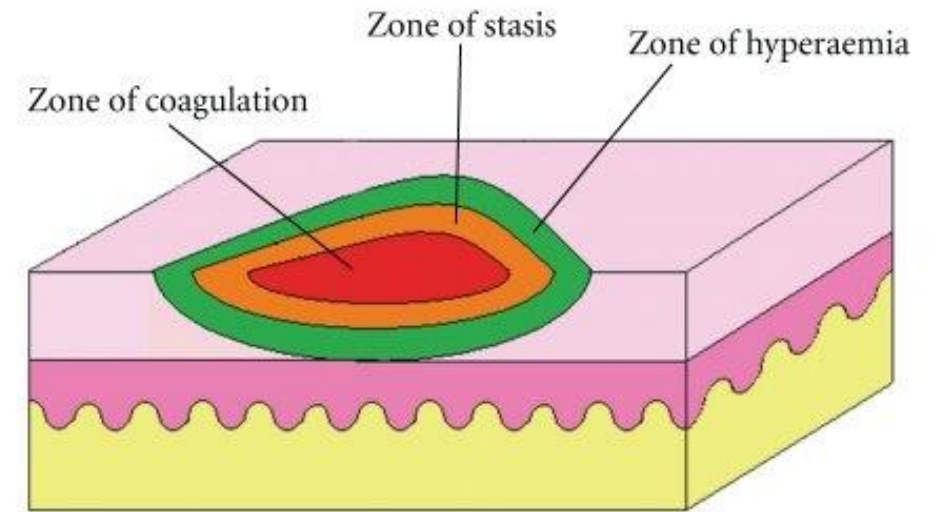






Thermal Burns

- Run under cool water, thought to reduce depth of injury and rescue the zone of stasis/reduce hyperemia which can cause free radical damage
- Avoid ice
- Leave small blisters alone, tight and large blisters can be popped with sterile needle and left as a biologic dressing
- Apply dressing with Vaseline, mupirocin or bacitracin OK too



Molluscum

- Caused by ***Poxvirus, is contagious***
- Pearly dome-shaped papules with central umbilication
- Face, trunk, diaper area common
- In genital area in teens and adults should consider sexual transmission
- Associated with atopic dermatitis
- Spontaneous remission within 6 months to 2 years



Verruca Vulgaris (warts)

- Caused by low-risk HPV types
- Majority of lesions will disappear on their own within 3-5 years
- If persistent or widespread, consider immunodeficiency
- Warts can be painful but so can the treatments



Congenital Nevi

- Moles present at birth or within the first few months of life
- Initially grow more rapidly than proportionally with child
- Usually have overlying hair
- Vary in color, color tends to lighten over time
- Larger = higher risk of melanoma development and CNS involvement



Angiomas

- Spider angiomas commonly seen in children, central vascular papule with thin radiating branches





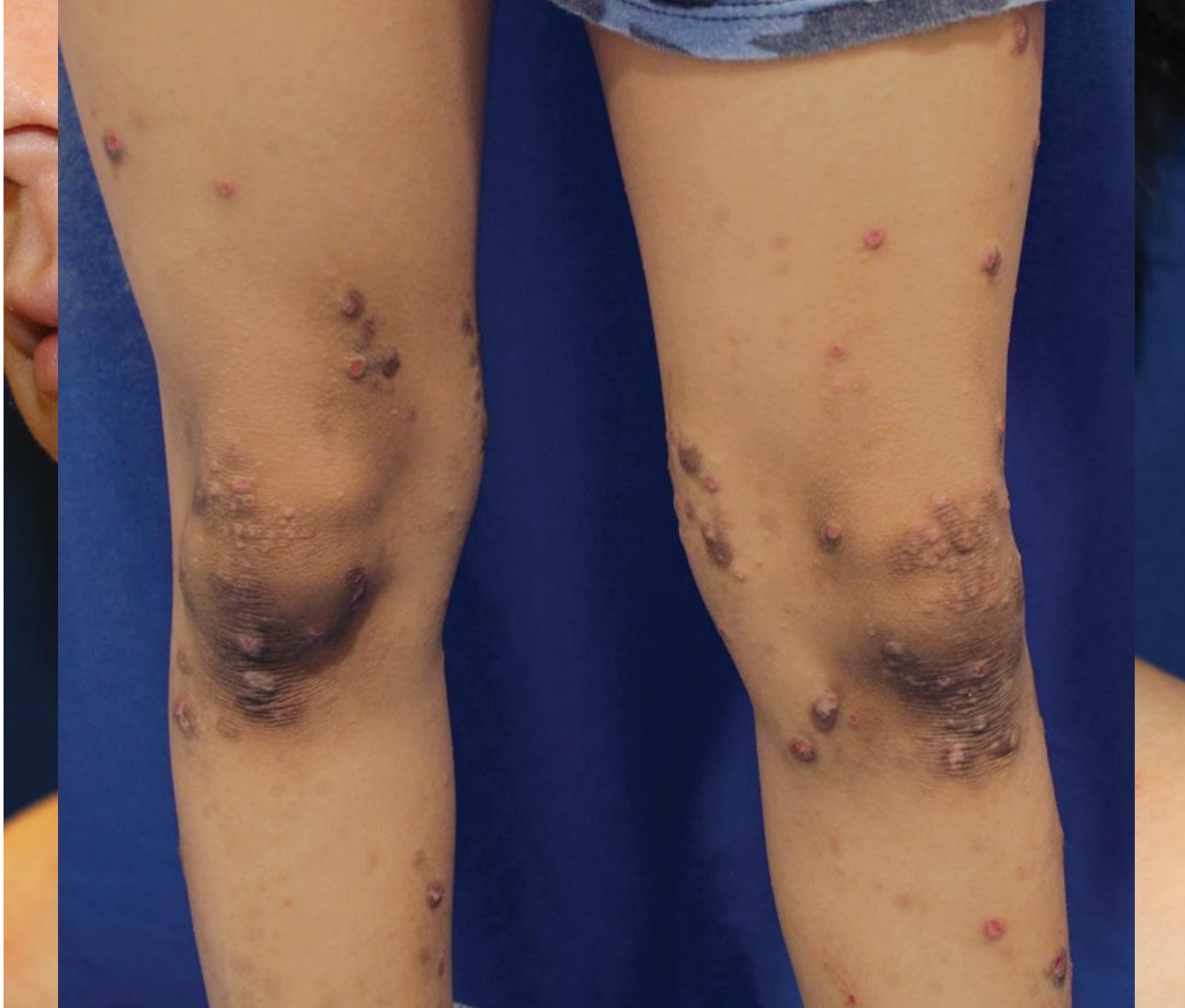
Common rashes to recognize



Atopic Dermatitis

- Most common skin disorder seen in infants and children
- Over half will present in first year of life
- Irritants, allergens, bacteria, and scratching all activate the skin's innate immune system
- Prone to developing infections (impetigo, viral)
- Associated with asthma and seasonal allergies, also food allergies





Keratosis Pilaris

- Plugged hair follicles with varying degrees of erythema
- Associated with sensitive skin/atopy
- Found on cheeks, upper arms, thighs
- Difficult to treat, can use mild exfoliants



Psoriasis

- Genetic, immune mediated
- One third of cases occur within first two decades of life
- Thick red plaques with overlying white scale, well-defined
- Elbows, knees, scalp, groin, associated joint inflammatory arthritis



Psoriasis, Depression, and Inflammatory Overlap: A Review

Nupur Patel ¹, Anish Nadkarni ¹, Leah A Cardwell ², Nora Vera ¹, Casey Frey ¹, Nikhil Patel ¹,
Steven R Feldman ^{1 3 4}

Affiliations [+](#) expand

PMID: 28432649 DOI: [10.1007/s40257-017-0279-8](https://doi.org/10.1007/s40257-017-0279-8)



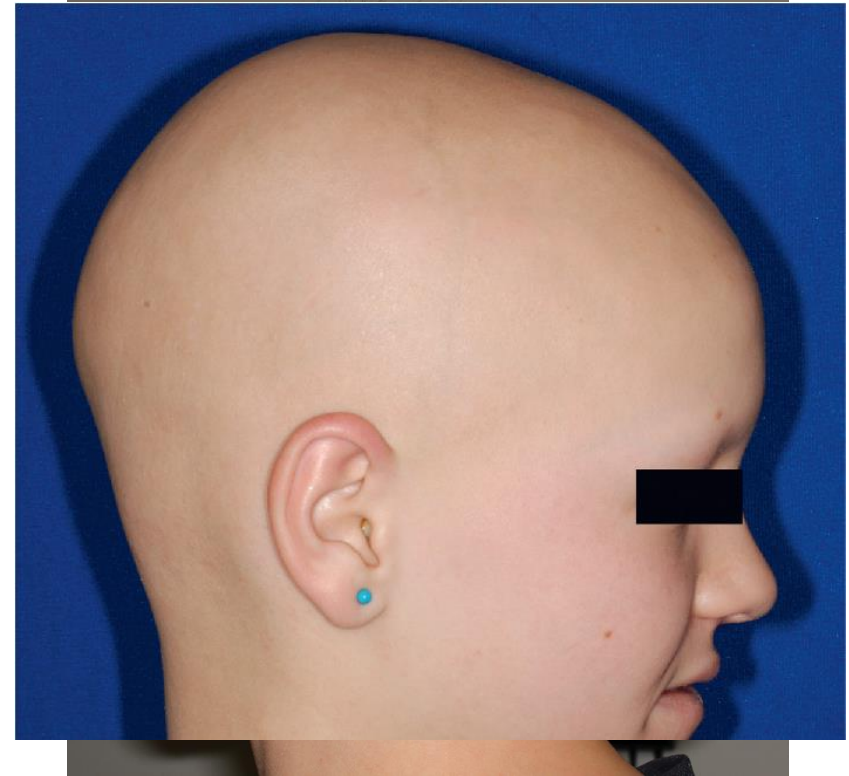
Vitiligo

- Autoimmune destruction of melanocytes
- Strongly associated with family history of **autoimmune thyroid disease**, will always ask about child's growth and development as well as family history
- Likes to develop around areas of friction/trauma (waist, hands, feet, knees)



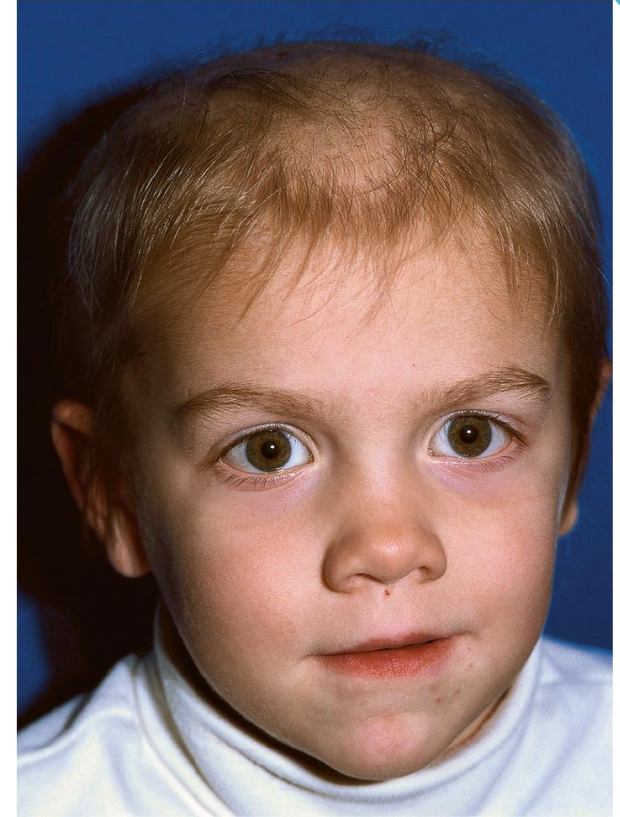
Alopecia Areata

- 20% of patients with AA are <18 years old
- Sudden onset of circular patches of hair loss
- Strong association with AA and atopic dermatitis
- Can treat topically or with injections
- New systemic medications are approved for AA



Trichotillomania

- Caused by consciously or by habitually plucking, pulling, or cutting the hair
- Often occurs when doing homework, working on the computer, watching television, or sitting on the toilet
- Commonly involves scalp, eyebrows, or eyelashes
- Patient may also have nail biting, lip picking or licking, lip biting, etc.



Acanthosis Nigricans

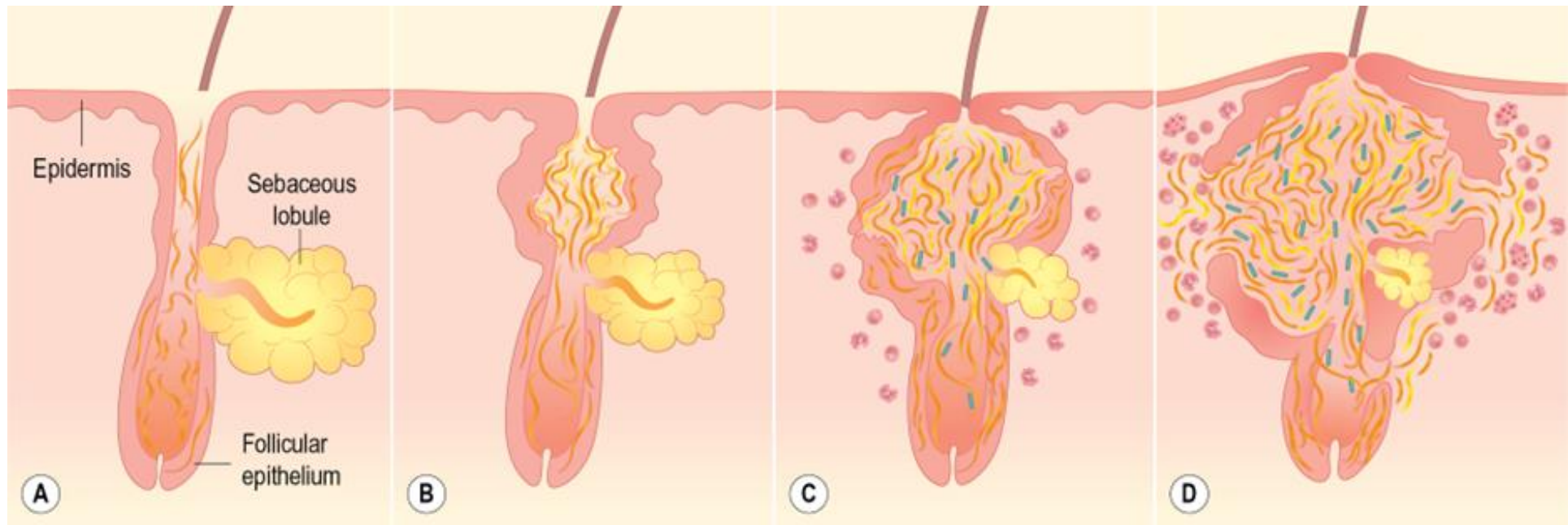
- Thickening of skin into “velvety” plaques
- Commonly seen around the neck, under arms, tops of fingers, chest/breasts
- Associated with diabetes, insulin resistance, and obesity
- Increased insulin like growth factor leads to skin changes



Severe Nodulocystic Acne

- Acne increasingly common, affects up to 80% of people between ages 11 – 30
- Family history plays a role
- For severe acne we treat with systemic medications that have side effects you may see:
 1. Doxycycline – sunburns or blistering, upset stomach
 2. Isotretinoin – dry lips, nose bleeds, joint pain, stomach pain, rarely worsening depression





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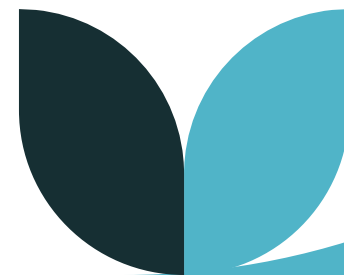
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Diagnosis?

- A. Seborrheic dermatitis
- B. Scar
- C. Vitiligo
- D. Atopic dermatitis





The shape and distribution of this rash makes you consider which of the following as most likely?

- A. A thermal burn
- B. Tick bite
- C. Psoriasis
- D. Bed bug bites





The patient with this rash is also at risk for which of the following?

- A. Arthritis
- B. Thyroid disease
- C. Food allergies
- D. Asthma
- E. C&D





What other possible symptom is associated with this condition?

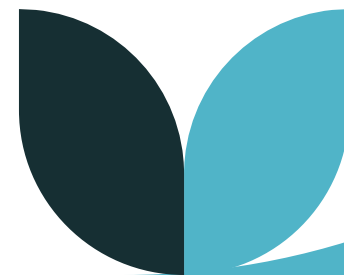
- A. Joint pain
- B. Asthma
- C. Constipation
- D. Fever





This patient should be checked for:

- A. Food allergies
- B. Diabetes
- C. Acne
- D. Kidney disease



Which of the following is a classic location for scabies?

- A. Scalp
- B. Face
- C. Elbows and knees
- D. Hands and feet



A child is sent to you after burning his hand on a hot monkey bar at school. All the following can be done after thermal burns **except**:

- A. Applying vaseline
- B. Applying a non-stick dressing
- C. Washing with ice-cold water
- D. Applying topical antibiotics





Which scenario could explain the patient's rash?

- A. Patient had diarrhea 3 days ago followed by appearance of rash
- B. Patient had tongue and lip swelling after eating peanuts
- C. Patient started a new medication for 2 days ago
- D. All of the above



Thank you!

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