Scabies and Pediculosis capitis

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Scabies

Spread of the mite Sarcoptes *scabiei* through skin-to-skin contact or sharing clothing/towels/sheets

Typically only 10 to 12 mites!

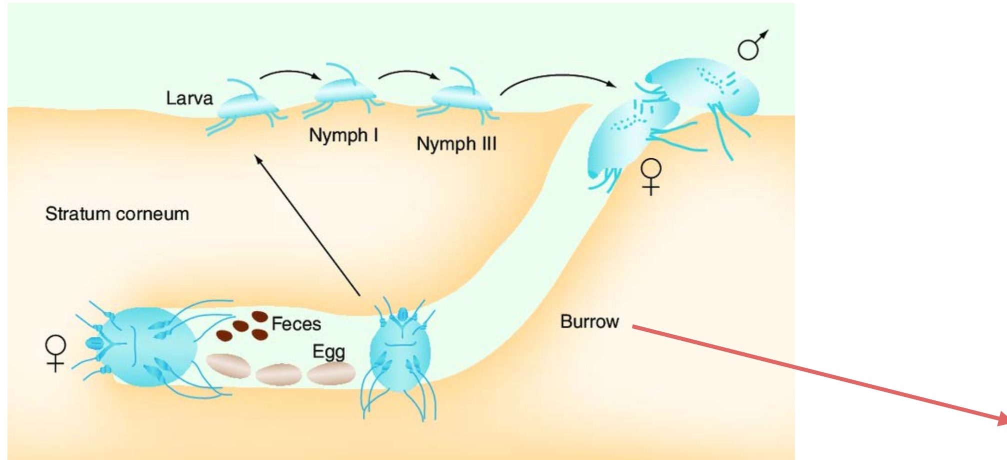
Symptoms develop in 4 - 6 weeks (1st infection) and 1 - 4 days (subsequent infections)

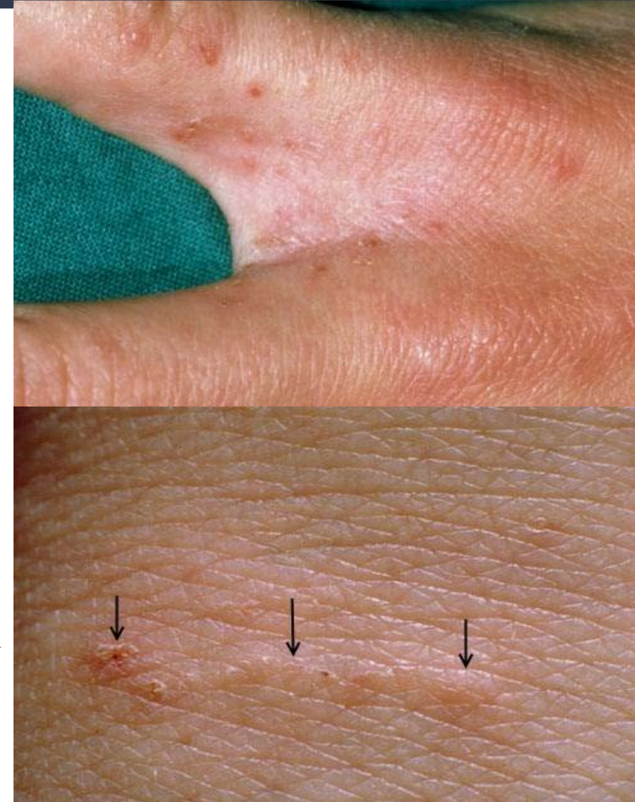
Presentation:

- Intensely pruritic lesions
- Typical distribution in web spaces between fingers/toes, wrists, skin folds (slide 4)
- Spares face in adults
- Infants affected on palms/soles, face, scalp
- Lesions described as erythematous papules with scaly lines/“burrows” (slide 3)

Life cycle of Sarcoptes Scabiei

The scabies mite burrows and lays eggs under the skin's surface triggering an allergic reaction





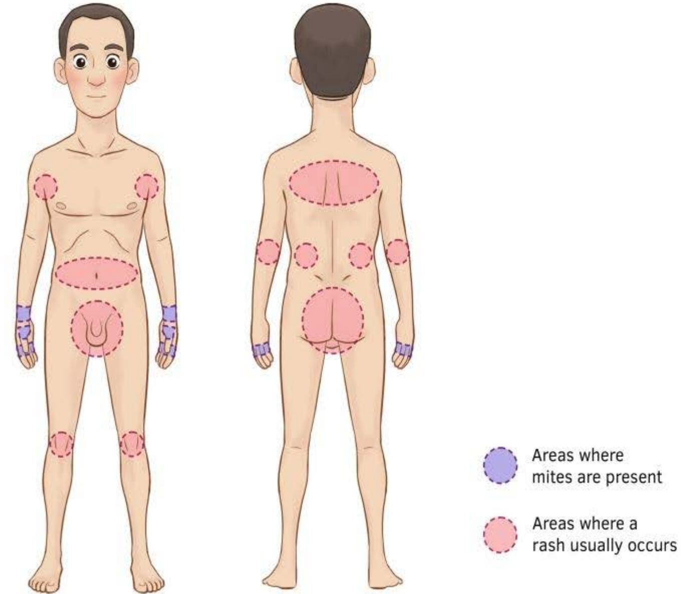
Scabies
What does it look like?

Distribution of scabies rash in young children and adolescents/adults mostly in skin folds:

- Between toes/fingers
- Buttocks
- Wrists/Elbows
- Armpits
- Groin area
- Soles/Ankles

Mites live on hands/wrists

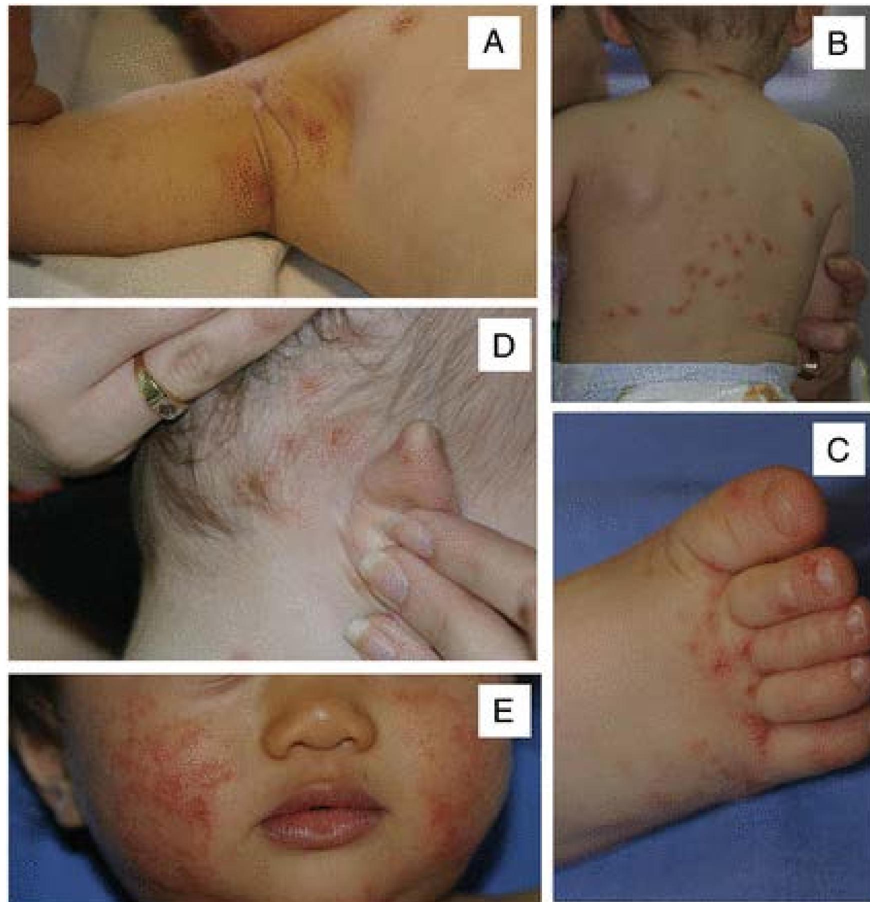
Young Children:



Scabies
What does it look like? (infants)

A + B. papulonodules in the axillary/inguinal folds and back in infant
C. papulopustules, vesicles, burrows in the dorsum of foot
D. scalp involvement in infant
E. facial eczematous lesions with burrows (often with eyelid involvement)

Infants: can mimic atopic dermatitis



Scabies: Diagnosis

Typically a <u>clinical</u> diagnosis

- Physical findings, especially burrows
- Itching out of proportion to physical findings
- Similar symptoms among household contacts

Can confirm diagnosis with microscopic examination of burrow scrapings (mites, ova, or fecal pellets)

Look for evidence of secondary bacterial infection

Scabies: Treatment

First-line: Topical Permethrin 5%

- Apply to entire body from the neck down
- Wash off after 8 - 14hr
- Repeat in 7 days
- For infants, can apply to face, avoiding perioral and orbital regions.
- Consider topical CS for pruritus

Second-line: Oral Ivermectin

To prevent re-infection:

- Treat close contacts
- Wash/dry clothing, bedding in hot water
- Alternatively can seal items in plastic bag for 3 days

Pediculosis capitis – Head Lice

Pediculus humanus capitis

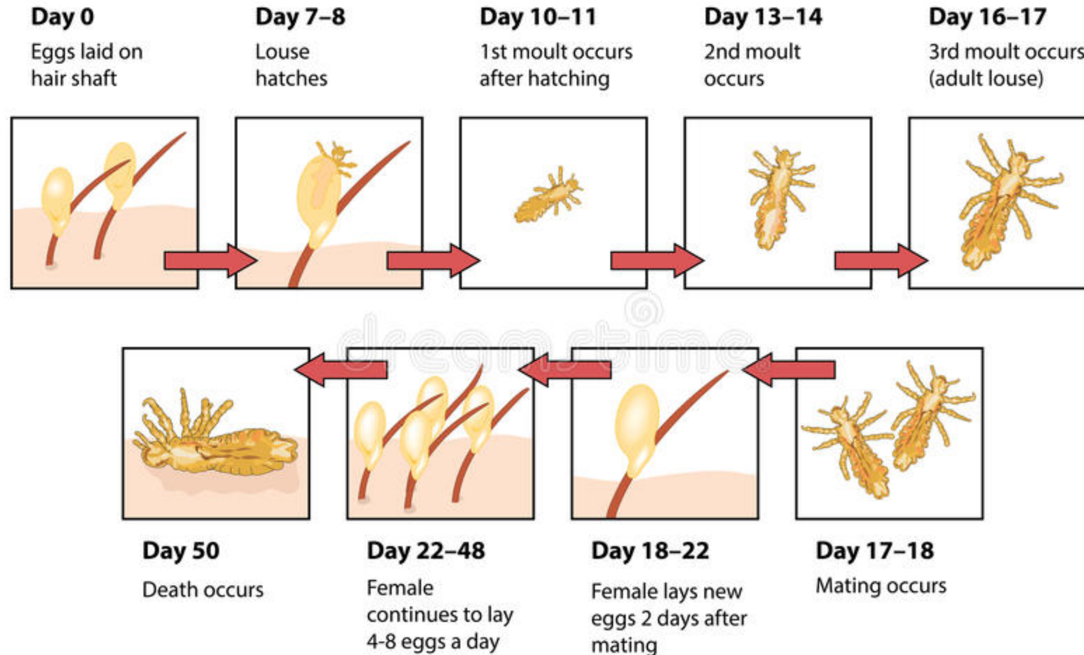
Most common among 3 - 11 year olds attending daycare or school

Infections most often spread by direct head-to-head contact, less often by clothing, combs, or towels

NOT associated with poor personal hygiene

NOT a public health hazard as the lice--though annoying--do not spread disease

Life-cycle of the head louse

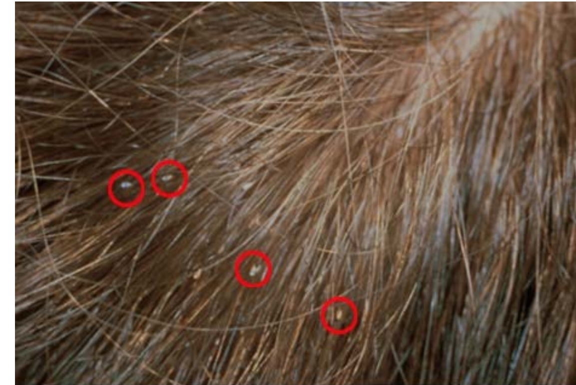


Head Lice vs Dandruff

Case-based question:

A mother brings her 3 year-old daughter in for persistent scratching at her scalp that seems to have worsened over the past two weeks. She is concerned that she may have lice.

On further questioning, you learn that the patient attends day-care. Mom has not heard any reports of children with lice attending the program. The patient is otherwise healthy (eating, pooping, peeing, sleeping, and playing normally) and has no personal or family history of eczema. When asked if she scratches at her head more at night time, mom is unsure.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On scalp exam, you find several tiny white spots in the hair (see image).

What can you do to help differentiate between dandruff and head lice?

Head Lice vs Dandruff

Head Lice	Dandruff
Firmly attached to the hair shaft. Most easily found near nape of neck.	Easily flakes off when touched
Eggs or “nits” are only present on shaft of hair (may see live adult lice moving on scalp)	Visible on scalp
Complain of scalp itching and “crawling” sensation	Tends to cause itching when the scalp is dry, winter time

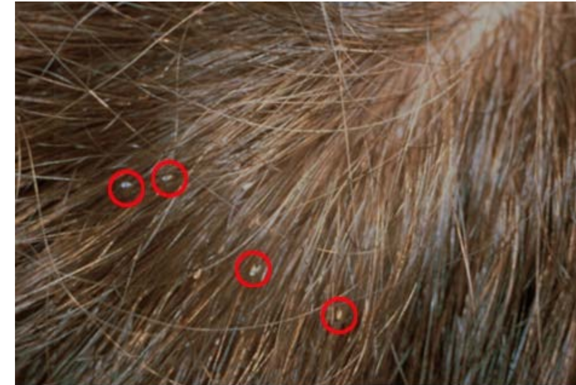
Head Lice vs Dandruff

Case-based question continued:

During the exam you notice several yellow/light-brown spots of similar size.

These do not easily dislodge from the hair shaft with manipulation.

You look for live adult lice along the scalp, but it looks clear expect for one area with red, scabbed-over excoriations. Her mother says she had to stop her daughter from scratching there last night.



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You diagnose the patient with head lice and begin counseling the parent on the best methods for treating the infestation.

Medical Treatment of Head Lice

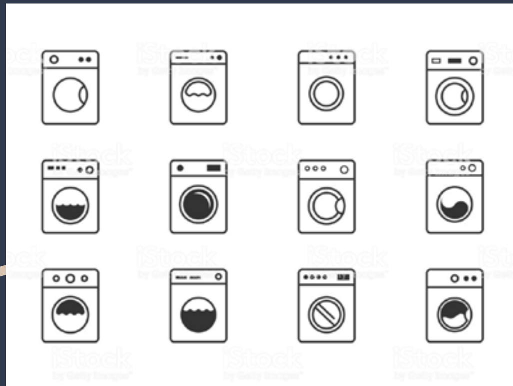
Over the counter:

- Permethrin lotion, 1% (Nix)
  - For age 2 months and older
  - Consider retreatment in 9 days if live lice are seen
- Pyrethrins combined with piperonyl butoxide (Rid)
  - For age 2 years and older
  - Avoid if allergy to chrysanthemums or ragweed
  - Consider retreatment in 9 days if live lice are seen

Prescription Medications:

- Ivermectin lotion, 0.5%
  - Apply to dry hair, only one treatment
  - Can use oral Ivermectin (off-label)
- Benzyl alcohol lotion, 5%
- Malathion lotion, 0.5%
  - 6 years and older, flammable (No dryers!)

Tips for Avoiding Reinfection



Check and treat other household members for lice

Lice cannot survive more than 24 - 48 hours on inanimate objects. Consider doing the following to possibly contaminated items the patient had come in contact with over the past two days:

- Wash bedding, stuffed animals, clothing, and hats hot water at 130 F, dry on high heat at least 20 minutes
- Seal unwashable items in an airtight bag for two weeks
- Vacuum the floor and furniture
- Wash combs and brushes in hot (130 F) soapy water, let soak 5 - 10 min