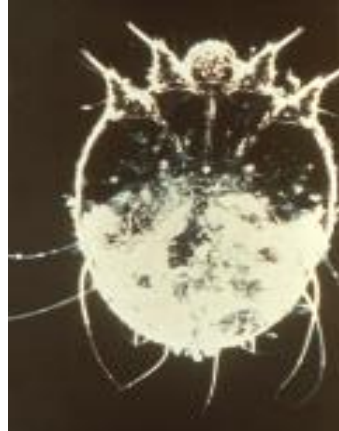


SCABIES



Acute Communicable Disease Control Program
County of Los Angeles Department of Public Health

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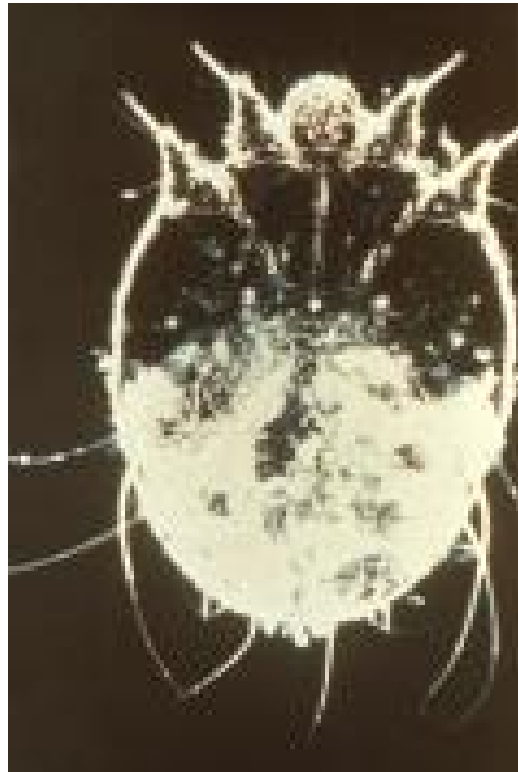
Overview

- Background – History, What Causes Scabies, and Life Cycle
- Transmission, Incubation, and Risk Factors
- Clinical Presentation and Diagnosis
- Treatment
- Environmental Measures
- Questions and Answers



What causes Scabies?

- Scabies is a skin infestation caused by the human itch mite, *Sarcoptes scabiei*



<http://phil.cdc.gov/phil/>



Scabies

- Common, worldwide, contagious skin disease
- Affects people of all races & social classes
- Atypical (or crusted) scabies, highly contagious
- Scabies misunderstood by general public and medical community

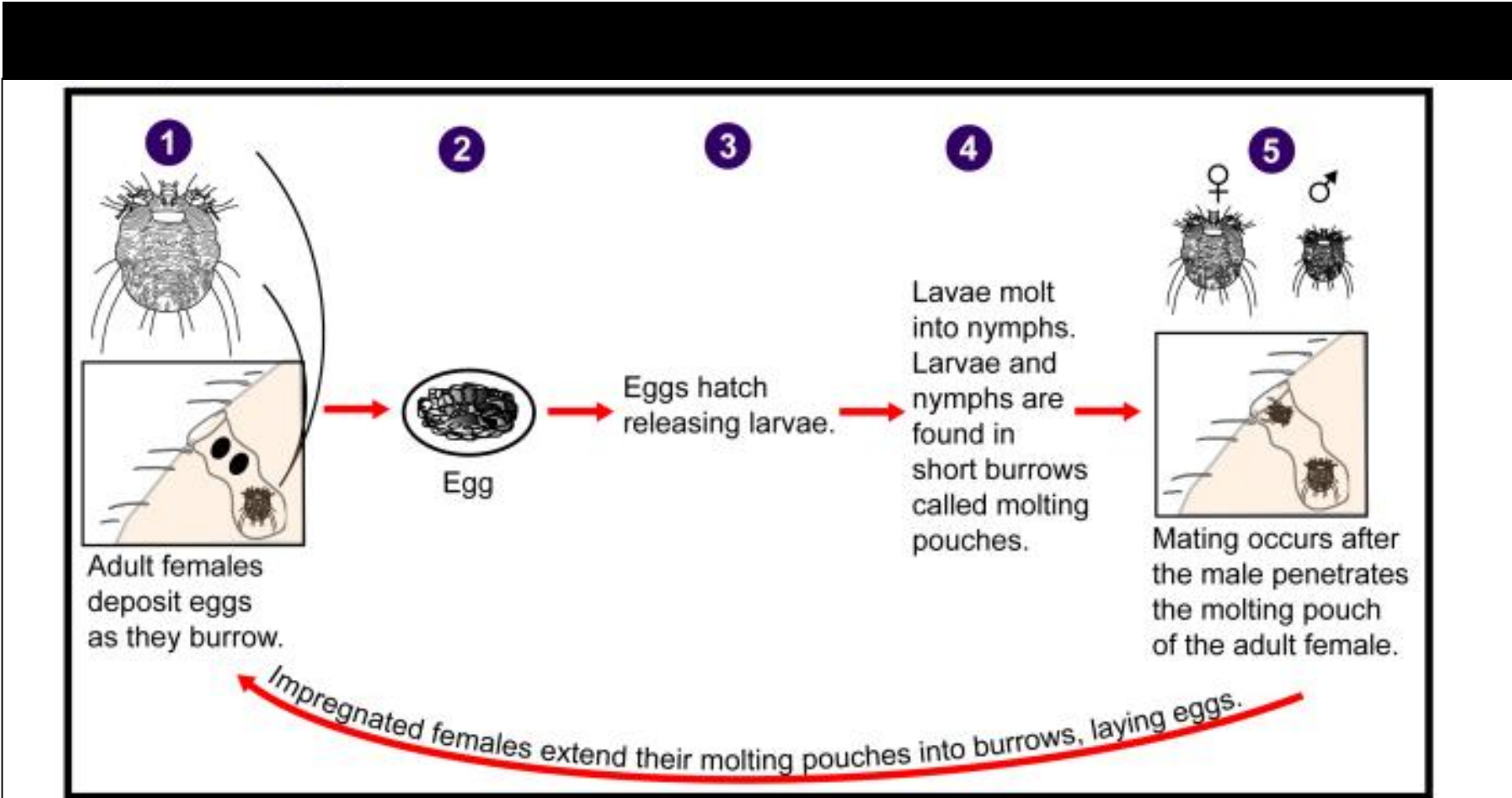
Chosidow, O, Scabies, N Engl J Med, 2006;354: 1218-27.



Types of Scabies

- Typical (Conventional): Patients usually have only 10-15 live adult females on the body at any given time
- Atypical (Crusted, formerly known as Norwegian): Heavy infestation with hundreds to thousands of mites. Caused when treatment & diagnosis is delayed. Highly communicable!

Life Cycle of Scabies Mite



Scabies Facts



- On the body, a scabies mite can live up to 4-6 weeks
- Once away from the human body, mites do not survive more than 48 – 72 hours
- Scabies mite cannot jump
- Visible by magnifying glass and microscope



Transmission



- By direct, prolonged, skin-to-skin contact with a person infested with scabies (e.g. bathing, back rubs, and applying lotion)
- By indirect contact, sharing clothing, towels, and bedding



Incubation Period

When do first symptoms appear?

- Symptoms may appear 4-6 weeks after exposure to an infested person or environmental contacts (clothing, bedding, etc.) in primary infestation
- If previously infested with scabies or following exposure to atypical scabies, symptoms may appear within 1-4 days



Scabies Symptoms

Both typical and atypical scabies symptoms include:

- Rash (small red bumps)
- Papules (pimple-like rash)
- Vesicle (blister-like rash)
- Chafed/swollen skin (irritation caused by friction)
- Intense itching, especially at night and over most of the body
- Sores on the body caused by scratching
- Secondary bacterial infections or scarring caused by scratching
- Burrows/tunnels (may look brown or black)
- Track marks (thin thread-like lines)



Atypical Scabies (Crusted)



<https://commons.wikimedia.org/wiki/>



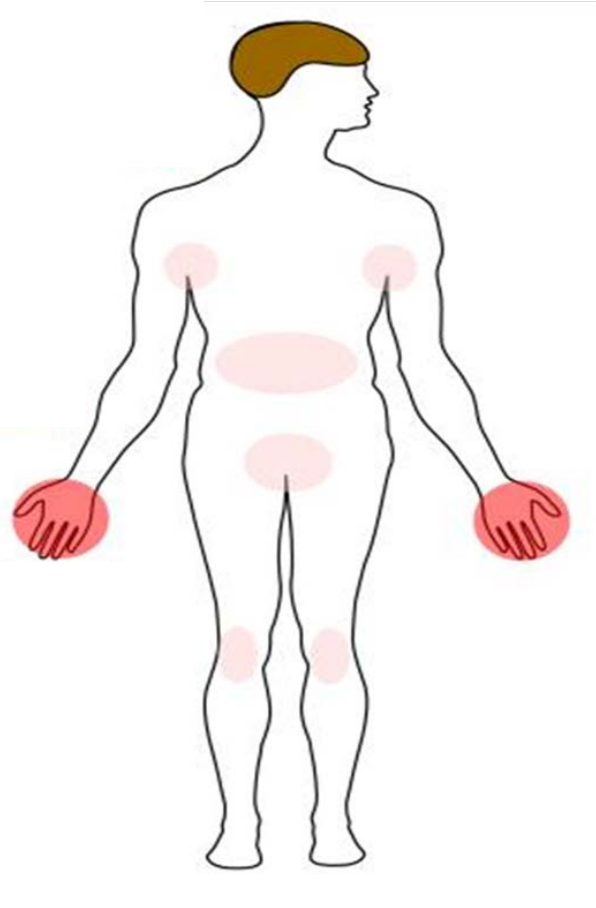
Atypical Scabies Symptoms

Atypical scabies symptoms progresses to:

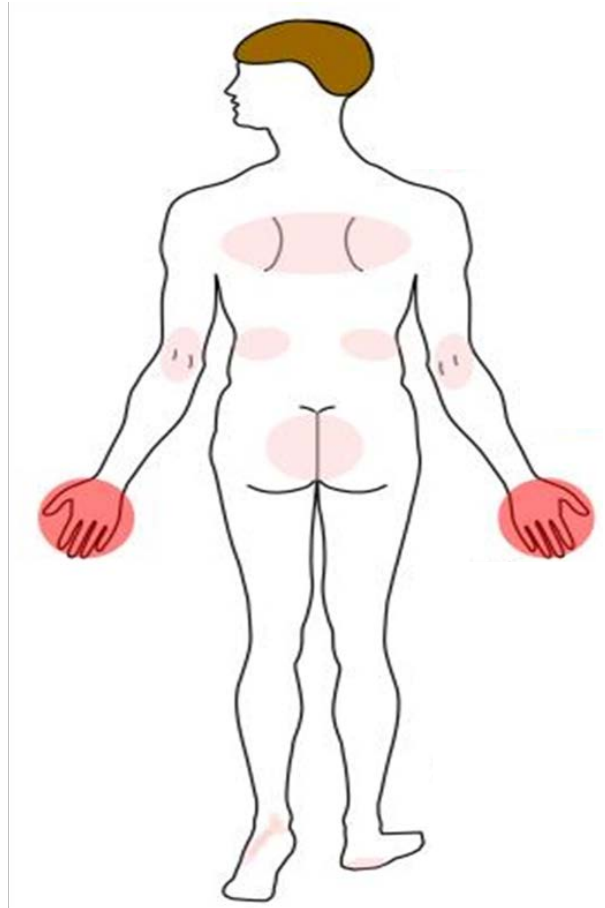
- Crusty (scabbed) or toughened skin
- Scaly skin (flakes)



Common Body Sites



- Wrists
- Finger webs
- Elbows
- Skin folds
- Under breasts
- Waistline
- Lower abdomen
- Genitals
- Buttocks



Hand: Papules



Abdomen: Rash



Legs: Secondary Bacterial Infestation



Diagnosis

- May be initially misdiagnosed
- Usually clinical observation
 - Based on appearance of rash, sores, track marks
- Skin scraping
 - Examine specimens for mites, eggs, pellets
 - Negative skin scraping does not rule out scabies



Who Should Be Treated?

- Anyone diagnosed with scabies
- Persons who have *close, prolonged contact* with the infested person should also be treated, *especially* those who had:
 - Contact with infested clothing or bedding
 - Close, sexual contact
 - Substantial contact with an atypical scabies infested person's environment



Timing of Treatment

- Everyone should be treated at the same time as the infested person to prevent possible re-exposure and re-infestation
 - Patients
 - Employees
 - Co-workers
 - Household members
 - Friends
 - Sexual partners



Scabies Treatment Options

- Topical Scabicide (most frequent)
 - 5% Permethrin cream (Elimite, Acticin)
 - **Elimite treatment of choice**
 - Adult dose is 30 grams, follow package insert
 - One dose is usually curative
 - 10% crotamiton lotion (Eurax)



Scabicide Treatment

Scabicide cream or lotion is most frequently prescribed

- Contact with the eyes and mouth should be avoided
- Apply medication to the skin and wash off after 8 – 14 hours
 - It can be applied at bedtime and washed off in the morning
- If scabicide is washed off during hand washing, toileting or perineal care, it must be reapplied
- Itching may persist for 1 – 2 weeks following successful treatment



Ivermectin

- 200 mcg/kg orally, may repeat day 14
- Not approved by FDA for scabies treatment
- Indications
 - Failure to respond to topical agents
 - Elderly
 - Unable to tolerate/comply with topical agents
- Linked to neurological effects in elderly populations



Reasons for Treatment Failures

- Infected or crusted lesions did not allow penetration of scabicide – need to soften scabiness;
- Re-infestation from untreated contacts;
- Cell-mediated immunodeficiency;
- Resistance of mites to the scabicide.



Environmental Cleaning

Prevent possible re-infestation with or re-exposure to scabies during treatment

- Clean any bedding and clothing worn or used next to the skin anytime during the 3 days before treatment
 - Machine wash and dry using hot water and hot dryer cycles
 - Dry clean non-washables
 - Store all other items in closed plastic bag for 1 week



Additional Cleaning

If infested person had atypical scabies (crusted skin) additional cleaning is recommended

- Thoroughly clean and vacuum rooms used by infected person
 - Immediately discard vacuum bag
 - Environmental disinfestation using pesticide sprays or fogs generally unnecessary and is discouraged
 - Unlike bed bugs or fleas, scabies mites do not survive on their own



Canine (and Feline) Scabies/Mange



The canine mite can burrow under human skin and cause itching and skin irritation

- It dies off in a couple of days
- It cannot reproduce
- It can reoccur with each exposure

– Until dog/cat is treated, the mange (canine scabies) is contagious to humans



Questions?



References/Further Information



<http://publichealth.lacounty.gov/acd/Diseases/Scabies.htm>

<http://www.cdph.ca.gov/HealthInfo/discond/Pages/Scabies.aspx>

<http://www.cdc.gov/parasites/scabies/>

