


## What is scabies?

Scabies is a **contagious, pruritic** skin infection caused by reactions to the ***Scaroptes scabiei*** mite, its eggs or its feces. Scabies is not a reportable disease, so its true prevalence is difficult to ascertain.

## PRESENTATION

### ▪ Risk factors:

- Poverty
- **Overcrowding** 
- Bed-sharing
- Families with many children
- Extremes of age (young, old)
- Immunocompromised
- Developmental delay
- **Lack of clean running water** is risk factor for secondary skin infections

### HISTORY AND PHYSICAL EXAM

#### This is a clinical diagnosis

- Pruritic rash, worse at night
- **Burrows, erythematous papules** between the fingers, wrist flexures, elbows or armpits
- Does not usually occur above the neck
- **Symptoms in other household members**

*Indigenous communities are disproportionately affected, resulting in significant morbidity*

## PATHOPHYSIOLOGY

- Direct skin-to-skin transmission of *Sarcoptes scabiei*. Limited transmission through fomites (ex: linen) since mite can only live 24-36 hours away from skin.
- Female adult mite burrows into epidermis and deposits eggs that hatch on day 2-4 and mature into adult mites over the next 10-14 days.
- Infected individuals develop a type I and IV hypersensitivity reaction to the mites, eggs, or excrement, illustrated by erythematous papules.



## DIFFERENTIAL DIAGNOSIS

- Atopic dermatitis
- Insect bite
- Eczema
- Impetigo
- Tinea corporis (ringworm)
- Psoriasis

## POSSIBLE COMPLICATIONS:

*Occur due to scratching*

**Secondary bacterial infection** typically caused by *S. aureus* and *S. pyogenes*

Risk of **sepsis** in **immunocompromised** individuals

## POTENTIAL INVESTIGATIONS

- Microscopic examination of skin scraping – scrape oil-coated blade across skin to obtain sample
- Burrow ink test – Lesion covered with ink, remove ink with alcohol. Ink remains tracking through burrows.
- Dermoscopy – Magnify and examine skin directly. *Difficult in remote setting*

## MANAGEMENT

**1st line: 5% permethrin cream.\*** Leave on for 12-14h, then bathe to remove. Repeat 1 week later. **\*Use in patients >3 months**

**Other topicals:** 10% crotamiton lotion/cream, **sulphur precipitated in petroleum jelly** (safe in patients <3 months), benzyl benzoate

### Other aspects of treatment:

- **All household members must be treated simultaneously to avoid re-infestation**
- **Bedding and clothing** should be **washed and dried** in a hot dryer **or sealed in a bag for >72 hours**, as mites typically cannot survive without human skin contact for longer than this

*Itching may persist beyond treatment completion, and does not reflect a failure of treatment*

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