



# Clinical Evidence Handbook

A Publication of BMJ Publishing Group

## Scabies

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This is one in a series of chapters excerpted from the *Clinical Evidence Handbook*, published by the BMJ Publishing Group, London, U.K. The medical information contained herein is the most accurate available at the date of publication. More updated and comprehensive information on this topic may be available in future print editions of the *Clinical Evidence Handbook*, as well as online at <http://www.clinicalevidence.bmj.com> (subscription required).

This series is coordinated by Kenny Lin, MD, MPH, Associate Deputy Editor for *AFP Online*.

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Author disclosure: Paul Johnstone and Mark Strong declare they have no competing interests.

Scabies is an infestation of the skin by the mite *Sarcoptes scabiei*. In adults, the most common sites of infestation are the fingers and the wrists, although it may manifest in older persons as a diffuse truncal eruption.

- Scabies is a very common public health problem. In many resource-poor settings, it is an endemic problem; whereas in industrialized countries, it is most common in institutionalized communities.

- Topical permethrin seems highly effective at increasing clinical cure of scabies within 28 days.

Topical permethrin use has been associated with isolated reports of serious adverse effects, including death.

Topical crotamiton seems effective at increasing clinical cure of scabies at 28 days, although it is less effective than topical permethrin.

We found insufficient evidence to judge the effectiveness of topical benzyl benzoate, topical malathion, or topical sulfur compounds for treating scabies.

Oral ivermectin seems more effective at increasing clinical cure of scabies compared with placebo. It may be more effective at increasing clinical cure compared with topical benzyl benzoate. However, it may be less effective than topical permethrin in the short term.

- There have been isolated reports of severe adverse effects with oral ivermectin, including death and convulsion, but these are rare.

- Observational data suggest that oral ivermectin may be effective in certain circumstances, such as when included in the treatment of hyperkeratotic crusted scabies, in persons with concomitant human immunodeficiency virus (HIV) infection, and when treating outbreaks in residential facilities.

- Although tested in randomized controlled trials (RCTs), oral ivermectin is not presently licensed for the treatment of scabies in most countries. It is only available on a named patient basis in the United Kingdom.

Topical lindane use has been restricted or is not available in many parts of the world owing to the mounting evidence for serious adverse effects. We have not included it in this review. However, it may be the most effective treatment that is locally available in some countries. Harms must be carefully weighed against benefits before it is used.

### Definition

Scabies is an infestation of the skin by the mite *S. scabiei*. Typical sites of infestation are skin folds and flexor surfaces. In adults, the most common sites are between the fingers and on the wrists, although it may manifest in older persons as a diffuse truncal eruption. In infants and children, the face, scalp, palms, and soles are also often affected. Infection with the scabies mite causes discomfort and intense itching, particularly at night, with irritating papular or vesicular eruptions. The discomfort and itching can be especially debilitating in immunocompromised persons, such as those with HIV/AIDS.

### Incidence and Prevalence

Scabies is a common public health problem. In many resource-poor settings, scabies is an endemic problem; whereas in industrialized countries, it is most common in institutionalized communities. Case studies suggest that epidemic cycles occur every seven to 15 years, and that these partly reflect the population's immune status.

**Etiology and Risk Factors**

Scabies is particularly common where there is social disruption, overcrowding with close body contact, and limited access to water. Young children, immobilized older persons, persons with HIV/AIDS, and other medically and immunologically compromised persons

are predisposed to infestation and have particularly high mite counts. Although not based on evidence from randomized controlled trials, treating family members and other close contacts at the same time as treating the index case is advisable to minimize reinfection and further spread. Clothing and bed linen belonging to the index case should also be washed.

**Clinical Questions**

**What are the effects of topical treatments for scabies?**

Beneficial	Permethrin (topical)
Likely to be beneficial	Crotamiton (topical; less effective than topical permethrin)
Unknown effectiveness	Benzyl benzoate (topical) Malathion (topical) Sulfur compounds (topical)

**What are the effects of systemic treatments for scabies?**

Likely to be beneficial	Ivermectin (oral; although tested in randomized controlled trials, it is not presently licensed for the treatment of scabies in most countries)
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**Prognosis**

Scabies is not life-threatening, but the severe, persistent itch and secondary infections may be debilitating. Occasionally, crusted scabies develops. This form of the disease is resistant to routine treatment and can be a source of continued reinfestation and spread to others.

SEARCH DATE: July 2013

Adapted with permission from Johnstone P, Strong M. Scabies. *Clin Evid Handbook*. June 2015:582-583. Visit <http://www.clinicalevidence.bmj.com> for full text and references. ■

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