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Patient information: Scabies (Beyond the Basics)

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SCABIES OVERVIEW

Scabies is an infestation of the skin by a mite called *Sarcoptes scabiei*. It causes intense itching and can be spread from one person to another through close skin-to-skin contact. Fortunately, effective treatments for scabies are available.

Scabies became more common in North America and Europe during the 1960s, and peaked around 1980. It has declined somewhat since then, but scabies remains a common problem, affecting as many as 300 million people worldwide [1].

SCABIES APPEARANCE

The scabies mite has eight legs, is whitish-brown in color, and is nearly invisible to the naked eye. The symptoms of scabies are caused by the female mites, which tunnels into the skin after being fertilized. The female lays eggs under the skin and continues to tunnel until she dies, usually after a month or two. When the eggs hatch, new mites travel back to the surface of the skin, then mate and repeat the cycle of tunneling and laying more eggs. A person who is infected with scabies typically has around 12 mites at any given time.

HOW IS SCABIES SPREAD?

Scabies is usually passed from one person to another through close skin-to-skin contact. It is common for infected parents to pass scabies to their child (particularly an infant) or vice versa as a result of close contact. However, it is unusual for school children to pass scabies to each other. It takes about three to four weeks for signs or symptoms of a first scabies infection to develop after infection. People who have been infected with scabies previously may develop symptoms within a few days after another exposure.

The most common mode of transmission between young adults is sexual contact, although the infection can be passed without sexual activity.

The mites that cause scabies only survive for 24 to 36 hours once they are no longer in contact with the skin; however, they may survive longer in colder conditions. As a result, scabies tends to be more common in the winter than in the summer.

Although uncommon, it is possible for a person to get scabies by wearing or handling heavily infected clothing, or sleeping in an unchanged bed recently occupied by an infected individual. This is more likely with a severe form of the condition called crusted scabies (see '[Crusted scabies](#)' below).

Animals can also become infected with scabies (a condition called mange), although animals are affected by a different type of mite. This mite can tunnel under the skin and cause itching in humans, but it does not

reproduce and does not require treatment because symptoms resolve when the mite dies (usually within a few days). People who suspect that their pet has mange should have the animal evaluated by a veterinarian. Getting the proper treatment for the pet will prevent new mites from infecting the human.

SCABIES SYMPTOMS

Typical scabies — The primary symptom of scabies is widespread itching, which may be severe and is usually worse at night.

Scabies also causes visible lesions (reddish bumps or blisters) on the skin; however, these are often very small and can be difficult to see ([picture 1](#)). These bumps or blisters are often more noticeable in children, especially if they scratch frequently.

A person may also notice a "burrow" or tunnel sign, a thin, visible line in the skin that extends from 2 to 15 millimeters (0.08 to 0.6 inches). Although not everyone with scabies has visible burrows, the presence of such marks strongly suggests scabies (see ['Do I have scabies?'](#) below).

The following parts of the body are more likely than others to be affected by scabies ([figure 1](#)):

- The fingers and webbing between the fingers
- The skin folds around the wrists, elbows, and knees
- The armpits
- The area surrounding the nipples (particularly in women)
- The waist
- The male genitalia (penis and scrotum)
- The lower buttocks and upper thighs
- The sides and bottoms of the feet

The back is usually not affected, nor is the head (except sometimes in infants or very young children).

Scabies lesions can become more irritated and inflamed with scratching, which may lead to infection. (See ['Treating infection'](#) below.)

Crusted scabies — People with a weakened immune system (including those with HIV infection, lymphoma, or other conditions) may develop "crusted scabies", also called "Norwegian scabies". This condition may also affect elderly people or those with Down syndrome.

Crusted scabies causes large, crusty red patches or bumps on the skin, which spread easily if untreated. The scalp, hands, and feet are often affected, although the patches can occur on any part of the body. The lesions of crusted scabies often contain large numbers of mites, although there may be little to no itching.

DO I HAVE SCABIES?

Scabies is usually diagnosed based upon symptoms (widespread itching, presence of bumps) and history (eg, whether family members or sexual partners also have these signs). A healthcare provider may be able to confirm the diagnosis by scraping the top layers of skin at the site of a lesion and examining it under a microscope for mites or eggs; however, this is not usually necessary.

Anyone who has symptoms of scabies should see their healthcare provider to be evaluated and confirm the

diagnosis.

SCABIES MANAGEMENT

Getting rid of mites — The most commonly used treatment for scabies is a topical (cream) medication such as permethrin (Elimite®, Acticin®). People with crusted scabies are usually treated with permethrin and an anti-parasitic pill (ivermectin/Stromectol®). Permethrin 5 percent cream (Acticin®, Elimite®) is usually the preferred treatment for pregnant women and infants.

In order for any treatment to be successful, it must be used correctly. Creams or lotions must be applied carefully to cover all skin from the neck down, and rinsed off according to instructions. Talk to a healthcare provider to be sure you understand which treatment is recommended and how to properly use it.

Treat family members — In some cases, household members and close contacts of a person with symptoms need treatment for scabies, even if there are no symptoms, to avoid a repeating cycle of infection. A healthcare provider can help to decide if this is necessary, depending upon the individual situation.

Although scabies is less frequently spread by touching the clothing or bedsheets of an infected person, it is still a good idea to wash or isolate any clothing, bedding, towels, pajamas, underwear, or stuffed animals that the person has touched within three days before treatment. It is not usually necessary to wash other items. Reasonable options for eliminating mites from these items include placing them in plastic bags for at least three days, machine washing and then ironing or drying in an electric dryer on the hot setting, or dry cleaning.

Crusted scabies is more likely to be spread through shared clothing or objects than typical scabies (see ['Crusted scabies'](#) above).

Relieving itching — Antihistamines may help to control itching. Non-sedating antihistamines, such as loratadine (Claritin®) or cetirizine (Zyrtec®), are generally recommended during the day while sedating antihistamines (eg, diphenhydramine/Benadryl®) can help to control itching and improve sleep at night.

Itching may persist for several weeks after mites are eliminated; a steroid cream or a course of oral glucocorticoids may be recommended if itching is severe. If symptoms persist or become worse, the person may have become re-infected.

Treating infection — The skin usually heals without difficulty after mites are treated. Keeping the skin clean and dry and avoiding scratching can help to prevent infection. However, if signs of a skin infection develop (eg, redness, swelling, pus, pain), oral antibiotics are generally recommended.

Return to work/school — Children can usually return to school after one treatment for scabies. Classmates and teachers do not usually need to be treated unless there are signs or symptoms of scabies infection.

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our web site (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

[Patient information: Scabies \(The Basics\)](#)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

This topic currently has no corresponding Beyond the Basics content.

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

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The following organizations also provide reliable health information.

- National Library of Medicine

(www.nlm.nih.gov/medlineplus/scabies.html, available in Spanish)

- Center for Disease Control and Prevention

(www.cdc.gov/scabies/, available in Spanish)

- The Nemours Foundation

(<http://kidshealth.org/parent/infections/skin/scabies.html>)

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[1-6]

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GRAPHICS

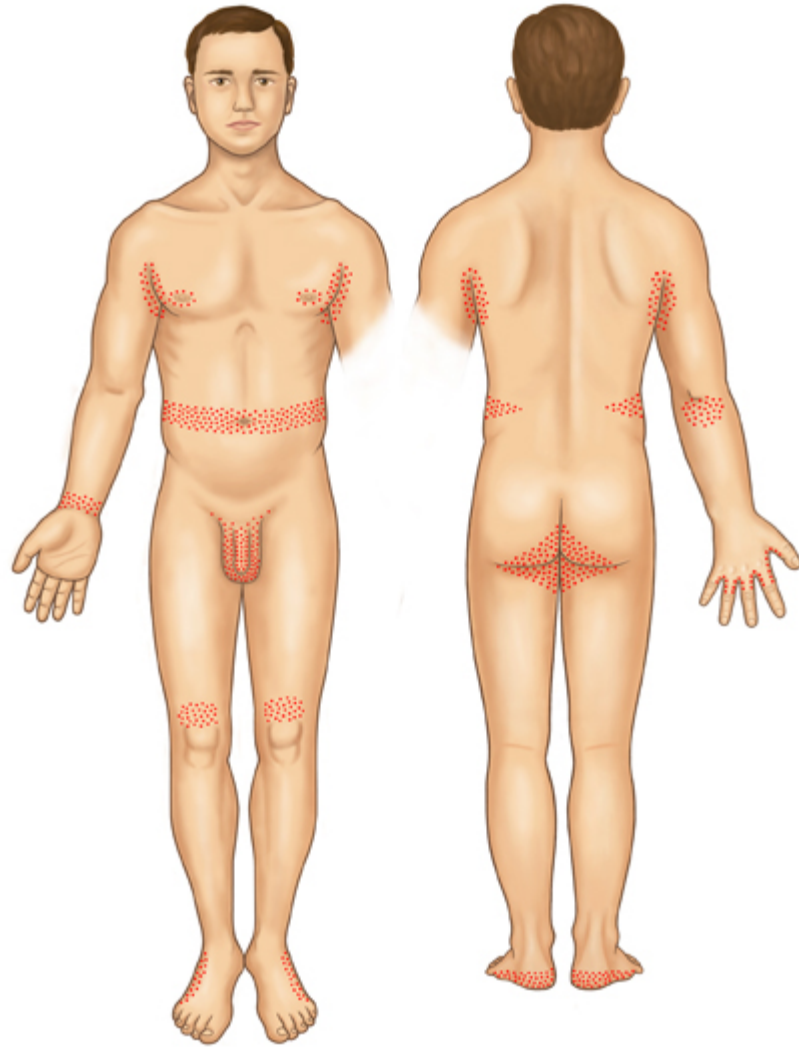
Scabies between the fingers



Scabies often affects the webs of the fingers.

Courtesy of John T Crissey, MD.

Parts of the body affected by scabies



Scabies usually affects the sides and webs of the fingers, inside of the wrists, elbows, armpits, skin around the nipples (especially in women), skin around the belly button, waist, male genitals (scrotum and penis), knees, lower half of the butt and tops of thighs, and sides and backs of the feet. The back is not usually affected. The head is not usually affected except in very young children.

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