

## SCABIES

### What is scabies?

Scabies is an infestation of the skin caused by parasitic mites called *Sarcoptes scabiei*. Scabies mites are found worldwide and can affect all races and socioeconomic classes in all climates. The female mite burrows under the top layer of the skin to lay eggs and can remain there for two months. The eggs hatch and become adult mites within ten days and can continue the infestation until proper treatment is applied.

### How is scabies transmitted?

Scabies is most commonly transmitted by having prolonged direct or frequent skin-to-skin contact with a person already infested with scabies, usually among sexual partners and household members. Healthcare workers may get infested through skin contact with patients with undiagnosed scabies. Scabies may also be transmitted through contact with an infested person's clothing or bedding (fomites).

### The signs and symptoms of scabies are:

- Intense itching, especially at night and over most of the body;
- Presence of the mite burrow(s), often forming a zigzag or "S" pattern on the skin;
- Presence of rash or skin lesions such as red, raised bumps, blisters, brown nodules, or pimple-like irritations.

Common sites of infestation (skin lesions) include: webs and sides of fingers and toes, pubic and groin area, armpits, bends of elbows and knees, wrists, navel, breasts, lower portion of buttocks, penis and scrotum, and waist and abdomen. Scabies is rarely found on the palms of the hands, the soles of the feet, or anywhere above the collar (neck and head).

### How long before symptoms appear?

In healthy people, if they have never been infested with scabies before, symptoms (itching and redness of the skin) appear approximately **4 to 6 weeks** after infection. If a person has been infested with scabies before, he/she will begin to experience symptoms within 1 to 4 days after infestation, because previous exposure to scabies will sensitize the skin (cause an allergic reaction) to mite infestation.

### What does scabies infestation mean for my health?

Scabies does not usually cause anything more than discomfort and inconvenience due to skin rash and itching. Secondary bacterial infections may occur due to aggressive scratching.

Scabies infestations should be treated as soon as possible; if diagnosis and treatment are delayed, the number of live mites multiplies resulting in heavier or atypical infestations. People with weakened immune systems and the elderly are at risk for crusted scabies, also known as Norwegian scabies, which is a more severe infestation of scabies. Because of the larger number of mites, crusted scabies is much more contagious than typical scabies.

### **How long can someone be contagious?**

A person with scabies can pass it on to another person as long as they have not been treated. Pieces of clothing and bedding of an infested person are considered infectious until properly washed or treated. After treatment, a person may unknowingly get re-infested by coming into contact with the same person who had scabies to begin with or with someone else who has scabies.

### **Can my pet give scabies to me?**

No. Other animals become infested with other types of mites (also known as mange), which can cause only temporary itching in humans, but not a long-lasting infestation.

### **How is scabies infestation diagnosed?**

Diagnosis is most commonly made by having a healthcare provider examine the burrows or rash. Sometimes a skin scraping can be used to look for mites, eggs, or mite fecal matter under a microscope to confirm the diagnosis. If a skin scraping or biopsy is negative, it is still possible that you may still be infested. Other ways to check for scabies infestation include applying ink or tetracycline solution to the skin, which is then wiped off with alcohol and the skin is examined to see if the characteristic zigzag or “S” pattern burrows appear.

### **How is scabies treated?**

Scabies can be treated by applying one of several available medicated lotions or creams to the skin. The recommended treatment for scabies is 5% permethrin cream. Always follow the directions provided by your physician or the directions that are included with the lotion or cream. The lotion should be applied to a clean body in a thin layer to all areas of the body from the neck down and left overnight (eight hours). After eight hours, the lotion or cream should be rinsed off in the bath or shower. All clothes, bedding, and towels used by the infested person within two days before treatment should be washed in hot water and dried in a hot dryer. When applied to the skin as directed, the treatment is approximately 90% effective after one application; however, a second treatment of the body may be necessary 7 to 10 days later.

## How soon after treatment will an infested person feel better?

If treatment with 5% permethrin cream is successful, the itching and presence of a rash should slowly go away over a 2 to 3 week period. Symptoms may get worse 1 to 2 days after treatment, due to the release of allergens from the killing of mites. If signs and symptoms continue or get worse or if new lesions are identified within 7 to 14 days, it is possible the treatment did not work and the skin should be reexamined or retested.

## **Scabies treatment summary**

- Seek medical attention as soon as you think you or a family member is infested with scabies.
- Use medication (5% permethrin cream) as directed.
- Wash infested clothing and linen on the hot cycle setting. Dry on hot cycle for at least 20 minutes.
- Items that cannot be put in the washer and dryer may be dry-cleaned or placed in a bag for two weeks to kill any remaining mites.
- Furniture and carpeting should be vacuumed to rid infested area of mites. Dispose of vacuum bag afterwards.
- Fumigation of living areas is not necessary.

## **Other recommendations:**

- Notify and treat all sexual partners and household members of scabies infestation.
- Abstain from intimate or sexual contact until treatment is successfully completed.
- Avoid sexual contact with infected partners.

## **Where can I get more information on scabies?**

From the CDC:

<http://www.cdc.gov/ncidod/dpd/parasites/scabies/default.htm>