

Dermatology

## Scabies

Scabies is caused by scabies mites. The mites are very small and live in the tunnels they burrow into skin. Scabies mites are parasites specific only to humans. Itching and spots are caused because the skin becomes sensitive to the mites and their secretions. Scabies is still common.

## Symptoms

The most common symptom of scabies is itching, which is especially strong in the evenings and at night. There may be small or larger spots and scratches on the skin. Fingers and wrists, elbow folds and armpits, abdominal area, buttocks and feet usually show the most symptoms. Small blisters and pustules are quite common. Thin five-millimetre-long mite tunnels most often occur on wrists and between the fingers. Crusted scabies can develop all over the skin in the elderly and in immunocompromised individuals. In young children and the elderly, scabies can also spread to the scalp.

## Spread

The scabies mites spread in close skin contact from one person to another. Infestations occur during sex and in family contacts. In groups such as children in day care or in institutional care of the elderly, scabies spread more easily. Epidemics occur in medical institutions, causing patients, their family/relatives and the care staff to become infected. Short-term contact, such as shaking hands, does not usually lead to infection. The scabies mites do not live outside the human body for more than 24 hours and therefore very rarely spread through bedding.

## Incubation period

After infection with scabies, there is an asymptomatic period of 2-4 weeks. In the second half of it, the infection can already be transmitted from one person to another. If a person gets re-infected with scabies, the asymptomatic period is shorter.

## Diagnosis

A positive diagnosis requires the detection of scabies tunnels. A doctor or nurse can find a scabies mite at the end of a scabies tunnel by digging out with a pin and placing it under a microscope.

## Treatment

Treatment consists of scabies medication, changing the clothes used and treating the person who had infected others with scabies as well as those infected. Repeated treatment after a week is necessary to ensure the effectiveness of the treatment. All family members are treated at the same time. Those who have symptoms are treated twice and those who do not, just once.

## Scabies medication

Scabies medication are the permethrin cream (Nix®) available over the counter, and the prescription drug, ivermectin tablets (Scatol®).

## Nix® cream (permethrin; 30 g tube)

One tube is enough for an adult to be treated once. The cream is applied to clean and dry skin from the toes to the tip of the jaw, neck and ears. The cream is also applied to the scalp and face (not around the eye), if there are signs or symptoms of scabies in these

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areas, and always for children under two years of age and elderly people, The cream should be applied with special care to the toes and fingers, nail edges, navel, armpits, groins and external genitals. The duration of action is at least 12 hours in adults and 6-8 hours in toddlers. The average amounts of cream needed for one treatment are indicated in the package instructions. For infants, the doctor will prescribe the duration of treatment. At the end of treatment, the skin is washed with water and soap. If washing of the hands and genitals is necessary during treatment, the cream should be applied immediately again to these areas.

The Nix® treatment is repeated after one week. Asymptomatic family members or other contact persons are treated once.

**Scatol® tablets (ivermectin 3 mg tablet)**

The dose of ivermectin is 0.2 mg/kg. Therefore, for a patient who weighs 60kg, the normal dose is 12 mg in one single dose. The medication is repeated after 1-2 weeks for patients who have symptoms. Ivermectin should be taken with a meal. Consumption of orange juice or alcohol during treatment with ivermectin should be avoided. Ivermectin interacts with some medicines.

**Other treatment**

After the first anti-scabies treatment, if necessary, scabies rash is treated with a cream containing cortisone and an antibacterial agent (e.g. Sibicort®). The cream is applied twice a day as long as the rash remains.

**Treatment of clothing**

The clothes, towels and bed linen used during the first scabies treatment are placed in normal machine wash (60°C). Outerwear (e.g. coats and jackets, gloves, hats) should also be washed. If the garment does not withstand normal water wash, put it in a plastic bag and put the bag in a freezer for 24 hours or keep the garment in a sealed plastic bag at room temperature for 72 hours. The mattress and bedroom are vacuumed normally. If the Nix® cream is on the skin overnight, the sheets should be changed and the bedroom is cleaned in the morning after washing off the treatment cream. In this case, wear plastic gloves. During the second medication, change the clothes, towels and bed linen in the same way as during the first round of treatment.

**Symptoms after medication**

The itching and skin symptoms caused by scabies infection often last for 2–3 weeks. They are caused by the infection of the skin and do not mean that the scabies medication has failed. Do not use Nix® cream more than twice without doctor's supervision, as the cream may also irritate the skin. Both the Nix cream and Scatol tablets are generally well tolerated. Treatment with cream may sometimes fail for various reasons. In case of doubt, you need to see a doctor again.