

Disease Fact Sheet: Scabies

Scabies is a contagious skin infection that spreads rapidly in crowded conditions and is found worldwide. Personal hygiene is an important preventive measure and access to adequate water supply is important in control.

The disease and its effect on people

The principal sign of the disease is a pimple-like rash that is most commonly found on the hands, especially the webbing between the fingers, the skin folds of the wrist, elbow or knee, the penis, the breast or the shoulder. Infestation often causes intense itching all over the body, especially at night. Scratching of itchy areas results in sores that may become infected by bacteria. A more severe form of scabies, known as Norwegian scabies, is more common among people with weakened immune systems. In this form of the disease, vesicles are present along with thick crusts over the skin. The itching in this type of scabies may be less severe or totally absent.

Cause

Scabies infestation is caused by the microscopic mite *Sarcoptes scabiei*. The fertilized female mite burrows into the skin, depositing eggs in the tunnel behind her. After the eggs are hatched, larvae migrate to the skin surface and eventually change into the adult form. Mating occurs on the skin surface. An adult mite can live up to about a month on a person. Once away from the human body, mites only survive 48-72 hours. The characteristic itchy rash of scabies is an allergic response to the mite. Individuals who are infested with scabies for the first time typically experience symptoms after 4 to 6 weeks. With subsequent infestation, symptoms appear within days.

Scabies spreads principally by direct skin-to-skin contact and to a lesser extent through contact with infested garments and bedclothes. Environments that are particularly vulnerable to the spread of scabies include hospitals, childcare facilities and any crowded living conditions. Infestation is easily passed between sexual partners.

Distribution of the disease

Scabies mites are found worldwide, affecting all socioeconomic classes and in all climates. Epidemics have been linked to poverty, poor water-supply, sanitation and overcrowding.

Scale of the problem

There are about 300 million cases of scabies in the world each year.

Interventions

Improved personal hygiene plays an important part in the prevention and control of scabies and depends on access to adequate water-supply. Treatment of patients is with acaricide ointments preceded by a hot bath with liberal use of soap. Infested clothing should be sterilized or washed in hot soapy water. Bedding, mattresses, sheets and clothes may require dusting with acaricides.

Several recent studies have demonstrated that an oral dose of ivermectin is extremely effective in curing scabies. The mass distribution of ivermectin organized by WHO for the control of onchocerciasis and lymphatic filariasis (in this case associated with albendazole) could have an important impact on scabies.

Prepared for World Water Day. Reviewed by staff and experts from the cluster on Communicable Diseases (CDS) and the Water, Sanitation and Health Unit (WSH), World Health Organization (WHO)