SCABIES: "THE ITCH"

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Bureau of Planning

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Scabies (the age-old affliction called "the itch" or "the seven-year itch") has become quite common in the United States in the past five or six years. Outbreaks of this contagious disease of the skin are frequently reported among school children, day care center enrollees, and residents of nursing homes and institutions. Scabies is no respecter of socioeconomic status and infestation is not related to lack of cleanliness.

Scabies is produced by the female itch mite (Sarcopters scabiei), which is almost translucent or whitish-yellow, about 0.35 mm in diameter and difficult to see with the naked eye. The fertilized female burrows into the stratum corneum--but no deeper--where she spends the rest of her month or two of life laying 40-50 eggs along the course of a ½ to 1 inch tunnel which she creates. This burrow, appearing as a grayish, threadlike line of skin, is pathognomonic. Sometimes the female mite can be extracted from the end of th tunnel with a needle or scalpel blade and placed on a slide for microscopic visualization. To our knowledge, attempts at laboratory confirmation of the apparent scabies epidemic currently taking place on Guam have not been successful. Tunnels are most commonly found between the fingers and on flexor surfaces of the wrist. Usually the eggs hatch in 3-5 days and the larvae leave the tunnel to hide in skin pores. After 4-10 days they develop into adults and mate, and the cycle is repeated.

The infestation is often not noticeable at first. After 3-6 weeks, a sensitization reaction occurs, manifested by an extremely pruritic, erythematous, vesicular, and papular rash. In typical cases, this eruption has a highly characteristic distribution involving the hands (especially the webs between the fingers), wrists, and elbows. This sign can be useful as a means of screening large groups, such as school children, during an epidemic. Other common sites are the axillary areas, female nipples, waist, external genitalia, buttocks, and inner thighs. The head is not involved except in infants.

The eruption of scabies causes intense itching which is generally worse at night or after physical exercise when the body is warm and the mites are more active. Scratching may lead to secondary bacterial infection which can obscure the clinic picture.

The diagnosis of typical scabies should not be difficult. Many cases, however, do not fit this expected pattern. The rash may consist of papular or vesicular lesions with a widely variable distribution. Burrows are not often seen in patients who bath regularly. It may be difficult or impossible to find a mite on microscopic examination of scrapings. Secondary bacterial infection may give the appearance of impetigo. An intensely pruritic rash, with itching worse at night or after exercise, is highly suggestive of scabies, however, especially if there are multiple cases in a household.

Scabies is usually transmitted from person to person through skin-to-skin contact and to a minimal extent through contaminated clothing and bedding. Close contact is necessary to transmit scabies; therefore, it most commonly spreads in households. If one family member has scabies, it is highly likely that other members of the family have it and all should be treated at the same time. Because the itching and rash of scabies are manifestations of hypersensitivity and generally do not appear until 3-6 weeks after the infestation is contracted, asymptomatic carriers are common. Consequently, all household members and other intimate contacts, whether symptomatic or not, must be treated to halt the transmission cycle.

Casual contacts generally do not require treatment. Varying degrees of transmission may occur, however, in group settings such as schools or day care centers.

Untreated, scabies may persist for decades, but treatment is nearly 100% effective provided that the simple details are strictly followed. The treatment of choice is one percent lindane cream or lotion (Kwell). It should be used according to the manufacturer's instructions: "The cream (or lotion) should be applied to dry skin in a thin layer and rubbed in thoroughly. If crusted lesions are present, a warm bath preceding the medication is helpful. If a warm bath is used, allow the skin to dry and cool before applying the cream (or lotion). Usually one ounce is sufficient for an adult. A total body application should be made from the neck down ... The cream (or lotion) should be left on 8-12 hours and should then be removed by thorough washing. ONE APPLICATION IS USUALLY CURATIVE.

Since the symptoms of scabies result from a hypersensitivity reaction, they may persist for a week or more after all mites have been killed by treatment. This often leads to excessive use of Kwell. Patients should be advised that symptoms are likely to persist for a time; if necessary, an antipruritic should be prescribed.

Intimate articles of clothing, bedding, towels, and washclothes should be washed and dried using the hot cycles of the washer and dryer. Hot ironing also kills the mite. Mites probably don't survive away from the host for more than one or two days so that sealing personal articles in a plastic bag for ten days should also be an effective procedure. Such items as furniture and carpets require no special attention.

It is not necessary to exclude children from school longer than the time necessary to complete the recommended treatment.

Lindane (Kwell) should be used strictly as recommended. Fatal convulsions and carcinogenesis have been reported in laboratory animals exposed to large amounts of the drug. Convulsions have also been reported in children after topical application, but in most cases the application was excessive or prolonged; in at least one case it appeared that the drug was accidentally ingested from the skin. Although there is no proof that Kwell poses a real hazard when properly used, alternative medications should probably be used for treatment of infants and small children. Some authorities recommend 5-10 percent precipitated sulfur in petrolatum; although this preparation is unlikely to have systemic effects, it has esthetic shortcomings. Crotamiton (Eurax) appears to be an effective scabicide which may be used an an alternative to lindane; however, there have been no controlled trials comparing the efficacy of crotamition with that of lindane.

Mites similar to that which causes scabies in humans cause mange in various animal animal species. Since these mites do not complete their life cycles in human skin, human infestation is self-limited and of short duration. Human infestation with these mites (most often acquired from dogs) is fairly common, however, and may give rise to pruritic skin lesions. The usual treatment for scabies should be effective. If the patient has a pet with symptoms suggestive of mange, a veterinarian should be consulted.

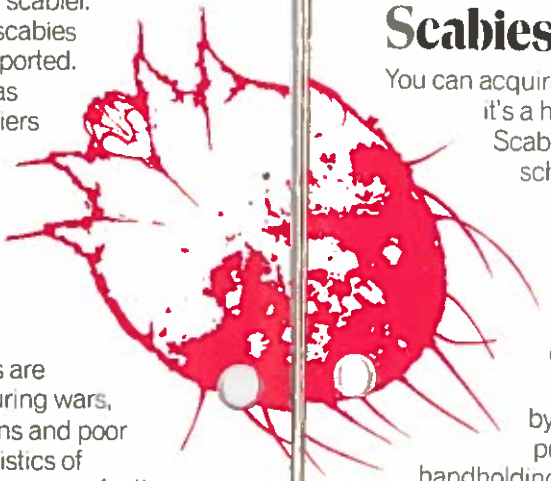
CDWS/INDIANA SBH

SCABIES

Anyone can get it

What is Scabies?

Scabies is a skin disease caused by an almost invisible organism, the "itch mite" (Sarcoptes scabiei). This disease has plagued man for thousands of years; in fact, ancient Greeks and Romans took note of the "itch" in their records. It was not until 1687, however, that a scientist named Bonomo, using a microscope, described the organism Sarcoptes scabiei. Since then, numerous scabies epidemics have been reported. For example, scabies was so common among soldiers during the Civil War that they nicknamed it "the camp itch." Waves of scabietic infection also occurred during World War I and World War II.



Scabies outbreaks are particularly common during wars, when crowded conditions and poor hygiene, both characteristics of wartime living, make it very easy for the mite to grow and spread. In fact, scabies was so frequently seen from 1700 to 1945 that it ranked from third to fifth among most common skin diseases. By the 1950s, the incidence of scabies declined rapidly to the point where one medical dictionary defined it as an organism, "now extinct."

In recent years, however, scabies has been making a vigorous comeback. No one really knows why; all we do know is that the mites seem to come and go in unexplainable cycles. Therefore, if your doctor tells you that you have scabies, don't be embarrassed; it's a common condition your physician can easily treat.

How do you get Scabies?

You can acquire scabies very easily because it's a highly contagious condition. Scabies often spreads among school children quite rapidly, due to their close contact. In addition, family members, roommates and sexual partners are all candidates for spread of an infestation.

Usually scabies spreads by direct contact with another person who is infested. Even handholding games among children, or simply shaking hands, can result in scabies being transmitted from one individual to another. Exchanging clothing or sharing a bed or towels is also a means of spreading scabies. The scabies mite does not "jump" from one person to another, and does not survive very long in clothing or linens.

However, any contact with someone who is afflicted is almost assurance of transmission.

Who gets Scabies?

Virtually anyone can get scabies—business executive, soldier, physician, housewife, college girl, teenage boy, or infants. They can be exposed to the mite anytime, anyplace, anywhere.

Unlike numerous other conditions and diseases, age, race and sex are not recognized by these mites. While scabies is most often seen in younger people—under 30 years of age—one physician recently reported in a medical journal that he discovered scabies in a college professor, a 73-year-old man and a fellow physician.

Similarly, country dwellers are just as likely to contract scabies as city dwellers. In fact, much to everyone's surprise, the first reported modern scabies epidemic recently swept through several small rural towns in the Northeastern United States. Scabies outbreaks occur in larger U.S. cities, too. Clearly, scabies is one of the least discriminating conditions known to man.

What happens when you get Scabies?

The male and female mite mate on the skin surface. Then, the female uses her tiny jaws and two pairs of forelegs to burrow

into, or penetrate, the outermost layer of skin where she lays one to three eggs daily. In a few days the eggs hatch and the six-legged larvae travel to the surface of the skin. Here, the larvae transform into immature mites. When the female mite reaches maturity, she mates, burrows into the skin and the cycle begins again. The male mite dies after mating; the female dies after her egg-laying is completed, usually five weeks after reaching adulthood.

It is extremely difficult to see the female mite without the aid of a magnifying glass, since she is just 1/60 of an inch in length (the male is slightly smaller), but the linear zigzag burrows just below the surface of the skin are often quite visible to the naked eye. Usually, a grayish-white thread on the surface of the skin marks her trail. If your doctor suspects scabies, he will look for these characteristic trails in the spaces between the fingers, the back of the hands, elbows, armpits, breasts, groin, penis, along the belt line, on the back or buttocks.

What are the signs of Scabies?

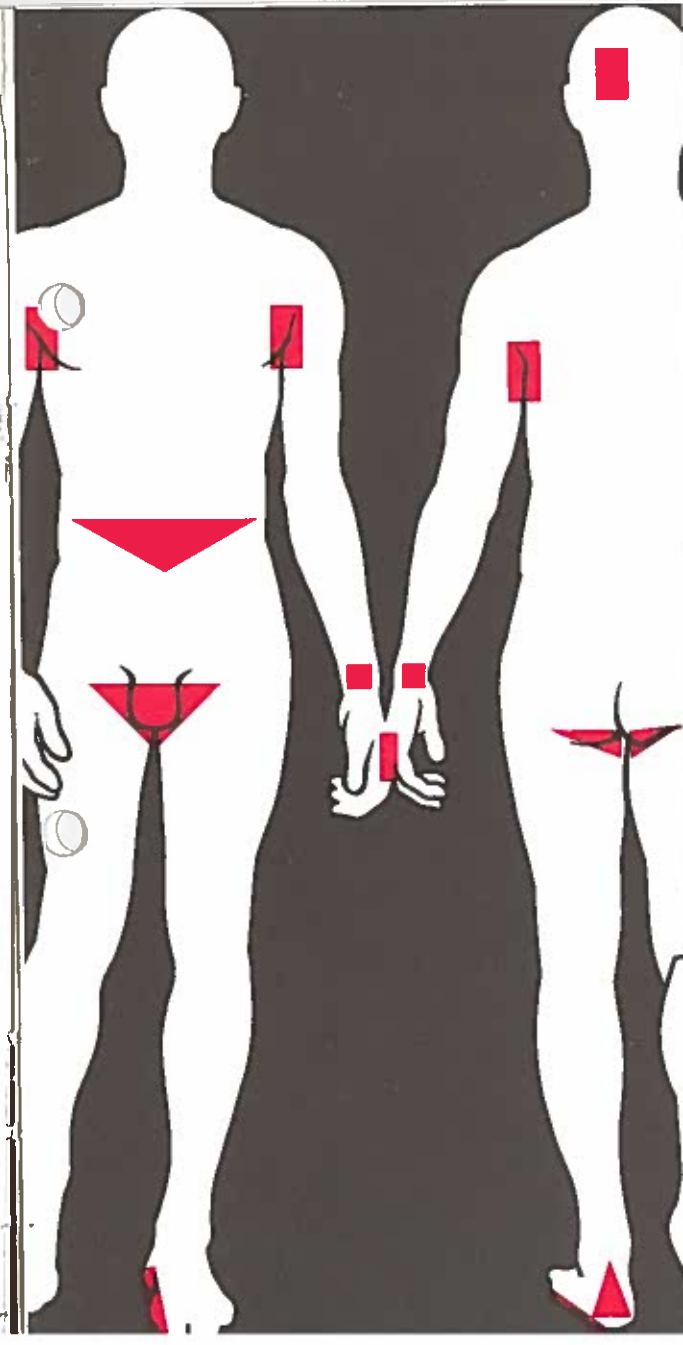
The only way to find out whether or not you have scabies is to see your doctor. A red, itchy rash, typical of scabies, is very common in other skin disorders, too.

Your doctor can tell precisely what causes the rash. If it looks like scabies, he may want to confirm his diagnosis by scraping a few tiny specks of skin from the itchy area, placing the specimen on a slide and examining it under a microscope. This only takes a few moments and is virtually painless.

If this is your first case of scabies, it may have taken four to six weeks from the time you contracted scabies for the symptoms to emerge. In addition to the linear burrows that appear between the fingers, on the elbows, hands, wrists, or other susceptible areas, you'll probably feel intense itching, particularly at night. It is not known why the itching worsens at night, but it is suspected that it may be due to the warmth afforded by blankets. It is also believed that the mites become more active at night when they intensify their burrowing and feeding. Although the itch is uncomfortable, you should try to avoid scratching, since this can lead to other infection and delay your healing.

Is there a cure?

Yes, and the treatment is effective and easy. The first significant breakthrough came during World War II, when thousands of U.S. soldiers tested the insecticide DDT as a new agent for scabies.



Treatment was effective, and the epidemic was virtually wiped out. In the 1960s, scabies began to reappear, but by this time researchers had found that the insecticide was a health hazard. As a result, DDT is no longer available for treatment. Other, less hazardous, agents were subsequently developed. Your doctor will prescribe one for you and you should use it according to his directions. The newer agents are esthetic, safe and won't irritate your skin. Treatment is so effective that scabies is almost always gone within 24 hours. However, the itch may last as long as two or three weeks.

Can you get Scabies again?

Regrettably, there is no immunity to scabies. However, with a second infestation the symptoms show up much faster. You will probably begin to itch within a few hours after contracting the mites. However, don't assume immediately that any new rash is another case. See your doctor, and let him make the proper diagnosis.

Good personal hygiene is essential. Wash your hands often, shampoo your hair frequently, wear clean clothes daily and don't exchange clothes with others. There are more steps you can also take to ward off another case. For example, if any member of your family has scabies, all the other members should be checked immediately. Obviously, no one should use the same bedding or clothing as the afflicted person. Any person with scabies should sleep in a clean bed and wear clean clothes.

Above all, be sure to call your physician if you have a skin condition that itches mostly at night. Treatment is quick and easy, and in almost no time at all you'll be cured of the infestation and feel fine again.

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