

SCABIES



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INTRODUCTION:

Scabies is a contagious skin infection caused by the *Sarcoptes scabiei* mite. It is characterized by intense itching and a rash.

ETIOLOGY/CAUSES:

- Scabies is caused by infestation with the **Sarcoptes scabiei mite**. The mite is a tiny, eight-legged parasite that burrows into the upper layer of the skin.
- **Close contact:** Living in crowded environments or close quarters where direct skin contact is frequent increases the risk of transmission. This includes places like nursing homes, prisons, schools, or daycare centers.
- **Sexual contact:** Scabies can be transmitted through sexual contact, including intimate contact or sharing sex toys with an infected person.
- **Weakened immune system:** Individuals with weakened immune systems, such as those with HIV/AIDS or undergoing chemotherapy, are more susceptible to scabies infestation.
- **Age:** Scabies can affect people of all ages, but it is more common in infants, young children, and older adults due to their weaker immune systems and increased close contact with others.

PATHOPHYSIOLOGY:

Infestation: The scabies infestation typically begins when a female mite comes in contact with the skin of a human host. This contact usually occurs through prolonged, direct skin-to-skin contact.

Burrowing: The female mite burrows into the upper layer of the skin, called the stratum corneum, using its mouthparts and front legs. It creates a burrow or tunnel

where it lives, feeds, and lays eggs. The burrow is usually a few millimeters long and appears as a thin, irregular, grayish-white, or flesh-colored line on the skin.

Egg-laying: Inside the burrow, the female mite lays eggs. She can lay 2 to 3 eggs per day, and over her lifespan of a few weeks, she can lay up to 40 to 50 eggs. The eggs are tiny and difficult to see with the naked eye.

Development: The eggs hatch within a few days, and the larvae emerge from the eggs. The larvae are very small and have only six legs.

Maturation and reproduction: The larvae convert into nymphs, which have eight legs, and then into adult mites. The process from eggs to adult mites takes around 10 to 14 days. After maturation, the adult male mites mate with the females in the burrow.

Allergic reaction and itching: As the mites burrow into the skin and lay eggs, they trigger an allergic reaction in the body. This immune response leads to intense itching, which is often worse at night.

Transmission and spread: If left untreated, the adult mites continue to burrow, lay eggs, and reproduce on the skin. This allows the infestation to spread to other areas of the body or to other individuals through direct skin contact or sharing of personal items.

CLINICAL MANIFESTATION:

- **Intense itching:** The hallmark symptom of scabies is severe itching, which is often worse at night. The itching is typically more intense in areas where mites are most active, such as between the fingers, wrists, elbows, armpits, waist, buttocks, and genitals. Scratching the affected areas can lead to skin damage and secondary infections.

- **Rash:** A scabies rash usually appears as small, red bumps or blisters on the skin. The rash can be accompanied by redness, inflammation, and sometimes crusting or scaling.
- **Burrows:** In some cases, thin, irregular, grayish-white, or flesh-colored lines or tracks may be visible on the skin. These are known as burrows and are created by the female mites as they tunnel into the upper layer of the skin to lay eggs.
- **Sores and secondary infections:** Prolonged and vigorous scratching of the itchy areas can lead to open sores, crusts, or scabs on the skin.
- **Generalized symptoms:** In some cases, scabies infestation can cause generalized symptoms such as fatigue, irritability, and difficulty sleeping due to the intense itching.

DIAGNOSIS:

- **Physical Examination/Visual examination:** The healthcare professional will visually inspect the affected areas of your skin for characteristic signs of scabies, such as burrows, rash, or tiny red bumps. They may use a magnifying glass or a dermatoscope to aid in the examination.
- **Skin scraping:** In some cases, the healthcare professional may perform a skin scraping to collect a small sample of skin from the affected area. The collected sample is then examined under a microscope to identify the presence of *Sarcoptes scabiei* mites or their eggs.
- **Dermoscopy:** Dermoscopy is a technique that involves using a handheld device called a dermatoscope to examine the skin in greater detail. It allows the healthcare professional to visualize the characteristic features of

scabies, such as burrows, mites, or eggs, which may not be easily visible to the naked eye.

- **Skin biopsy:** In rare cases where the diagnosis is uncertain, a skin biopsy may be performed. A small sample of skin is taken from the affected area and sent to a laboratory for microscopic examination. This can help differentiate scabies from other skin conditions with similar symptoms.

PHARMACOLOGICAL MANAGERMENTS:

- **Permethrin cream:** This topical medication is considered the gold standard for scabies treatment. It kills the mites and their eggs. Some brand names for permethrin cream include Elimite, Nix, and Acticin.
- **Ivermectin:** This oral medication is used when topical treatments are ineffective or not feasible. It works by paralyzing and killing the mites. Ivermectin is available in tablet form, and some brand names include Stromectol and Sklice.
- **Crotamiton cream or lotion:** Crotamiton is a topical medication that relieves itching and helps to kill the mites. It is typically applied to the entire body from the neck down. Eurax is a common brand name for crotamiton cream.

NON PHARMACOLOGICAL MANAGERMENTS:

- **Avoid close skin-to-skin contact:** Minimize direct skin-to-skin contact with individuals who have a known scabies infestation. This is particularly important in crowded settings, such as nursing homes, schools, or daycare centers.
- **Limit sharing personal items:** Avoid sharing clothing, bedding, towels, or other personal items with individuals who have scabies. Mites can survive on these items and spread to others.

- **Maintain personal hygiene:** Practicing good hygiene can help reduce the risk of scabies infestation. Regularly wash your hands with soap and water, especially after direct contact with someone who has scabies or after touching potentially contaminated surfaces.
- **Launder clothing and bedding:** If you suspect or know that you have been in contact with someone with scabies, wash your clothing, bedding, and towels in hot water and dry them on high heat. This helps kill any mites or eggs that may be present.
- **Vacuum and clean living spaces:** Regularly vacuum and clean your living environment, including furniture, rugs, and car seats, to remove any mites that may have fallen off the skin.
- **Treat close contacts:** If someone in your household or close contacts has scabies, it's important that they receive proper treatment. Even if you don't have symptoms, consider seeking medical advice to determine if preventive treatment is necessary for you or other family members.
- **Follow healthcare facility protocols:** In settings like nursing homes or healthcare facilities, it's crucial to adhere to infection control protocols and follow the guidance provided by healthcare professionals.