<table>
<thead>
<tr>
<th>Typical Scabies</th>
<th>vs</th>
<th>Crusted Scabies</th>
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</table>
| **Human scabies** is caused by an infestation of the skin by the human itch mite (*Sarcoptes scabiei* var. *hominis*). The adult female scabies mites burrow into the upper layer of the skin (epidermis) where they live and deposit their eggs. | | **Description**
Severe form of scabies; much more numerous than typical scabies (up to 2 million per person compared to 10 to 15 per person) and can easily be shed in the scales and flakes from the affected skin; more prevalent in persons who are institutionalized, debilitated, or immunocompromised |
| A typical infestation is when an infested person has between 10 and 15 live, adult, female mites on the skin | **Symptoms**
Severe itching (pruritus), especially at night; a pimple-like (papular) itchy (pruritic) is also common |
| | **Transmission**
Direct, prolonged skin-to-skin contact with an infested person |
| | **Diagnosis**
Usually is made based upon the customary appearance and distribution of the rash and the presence of burrows |
| | | (Whenever possible, the diagnosis of scabies should be confirmed by identifying the mite or mite eggs or fecal matter. This can be done by carefully removing the mite from the end of its burrow using the tip of a needle or by obtaining a skin scraping to examine under a microscope for mites, eggs, or mite fecal matter. However, a person can still be infested even if mites, eggs, or fecal matter cannot be found; fewer then 10-15 mites may be present on an infested person who is otherwise healthy.) |
| | **Treatment**
Treatment with both oral Ivermectin and topical agent should be used (Please see medication guidelines below) |
| | **Contacts**
Treatment also is recommended for household, sexual, and close contacts of infested persons, particularly those who |
have had prolonged skin-to-skin contact; all persons should be treated at the same time in order to prevent reinfestation

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<td>Ohio Administrative Code (OAC) 3701-3-13 states: A person with scabies shall be isolated for twenty-four hours following initial treatment with an effective scabicide.</td>
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<td>Prevention &amp; Control</td>
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<td>Isolation</td>
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<td>Ohio Administrative Code (OAC) 3701-3-13 states: A person with the manifestation of scabies known as “crusted scabies” shall be isolated until the mite can no longer be demonstrated on a scabies preparation</td>
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### Medications

Products used to kill scabies mites are called scabicides. No "over-the-counter" (non-prescription) products have been tested and approved to treat human scabies.

The following medications for the treatment of scabies are available only by prescription.

### Classic scabies: one or more of the following may be used

1. **Permethrin cream 5%**

   **Brand name product: Elimite**

   Permethrin is approved by the US Food and Drug Administration (FDA) for the treatment of scabies in persons who are at least 2 months of age. Permethrin is a synthetic pyrethroid similar to naturally occurring pyrethrins which are extracts from the chrysanthemum flower. Permethrin is safe and effective when used as directed. Permethrin kills the scabies mite and eggs. Permethrin is the drug of choice for the treatment of scabies. Two (or more) applications, each about a week apart, may be necessary to eliminate all mites. Children aged 2 months or older can be treated with permethrin.
2. Crotamiton lotion 10% and Crotamiton cream 10%

Brand name products: Eurax*; Crotan*

Crotamiton is approved by the US Food and Drug Administration (FDA) for the treatment of scabies in adults; it is considered safe when used as directed. Crotamiton is not FDA-approved for use in children. Frequent treatment failure has been reported with crotamiton.

3. Sulfur (5%-10%) ointment (multiple brand names)

Sulfur in an ointment base (petrolatum) is safe for topical use in children, including infants under 2 months of age. The odor and cosmetic quality may make it unpleasant to use (CITE KARTHIKEYAN 2007).

4. Lindane lotion 1%

Brand name products: None available

Lindane is an organochloride. Although FDA-approved for the treatment of scabies, lindane is not recommended as a first-line therapy. Overuse, misuse, or accidentally swallowing lindane can be toxic to the brain and other parts of the nervous system; its use should be restricted to patients who have failed treatment with or cannot tolerate other medications that pose less risk. Lindane should not be used to treat premature infants, persons with a seizure disorder, women who are pregnant or breast-feeding, persons who have very irritated skin or sores where the lindane will be applied, infants, children, the elderly, and persons who weigh less than 110 pounds.

5. Ivermectin

Brand name product: Stromectol

Ivermectin is an oral antiparasitic agent approved for the treatment of worm infestations. Evidence suggests that oral ivermectin may be a safe and effective treatment for scabies; however, ivermectin is not FDA-approved for this use. Oral ivermectin should be considered for patients who have failed treatment with or who cannot tolerate FDA-approved topical medications for the treatment of scabies. If used for classic scabies, two doses of oral ivermectin (200 Ug/kg/dose) should be taken with food, each approximately one week apart. The safety of ivermectin in children weighing less than 15 kg and in pregnant women has not been established.

Note that although ivermectin guidelines recommend taking on an empty stomach, scabies experts recommend taking with a meal to increase bioavailability (CITE NEJM Currie article).
Crusted scabies: both oral and topical agents should be used

1. **Ivermectin**

   **Brand name product: Stromectol**

   Ivermectin is an oral antiparasitic agent approved for the treatment of worm infestations. Evidence suggests that oral ivermectin may be a safe and effective treatment for scabies; however, ivermectin is not FDA-approved for this use. The safety of ivermectin in children weighing less than 15 kg and in pregnant women has not been established.

   For crusted scabies, ivermectin should be administered together with a topical agent. Oral ivermectin (200 Ug/kg/dose) should be taken with food. Depending on infection severity, ivermectin should be taken in three doses (approximately days 1, 2, and 8), five doses (approximately days 1, 2, 8, 9, and 15), or seven doses (approximately days 1, 2, 8, 9, 15, 22, and 29).

2. **Permethrin cream 5%**

   **Brand name product: Elimite**

   Permethrin is approved by the US Food and Drug Administration (FDA) for the treatment of scabies in persons who are at least 2 months of age. Permethrin is a synthetic pyrethroid similar to naturally occurring pyrethrins which are extracts from the chrysanthemum flower. Permethrin is safe and effective when used as directed. Permethrin kills the scabies mite and eggs. Permethrin is the drug of choice for the treatment of scabies. Topical permethrin should be administered every 2-3 days for 1-2 weeks to treat crusted scabies.

3. **Benzyl benzoate 25% (with or without tea tree oil)**

   Benzyl benzoate may be used as an alternative topical agent to permethrin. However, this agent may cause immediate skin irritation. Lower concentrations may be used in children (10% or 12.5%).

4. **Keratolytic cream**

   A topical keratolytic cream may also be used to help reduce the crusting of the skin and aid in the absorption of the topical permethrin or benzyl benzoate.
References:

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