

# DISPATCH



## Lice (head, body, pubic) and Scabies

### What are they?

Lice are small parasites that live entirely on humans. Pediculosis is the term for an infestation of lice. The female lice hold on to skin or hairs and lay their eggs, called nits. Adult lice are the size of a sesame seed, have six legs, and are tan to greyish-white.

Both the adults and the immature larvae feed on human blood. The small bites from the lice are intensely irritating which leads to scratching and potential for secondary skin infections from bacteria on the skin.

There are three types of lice:

- |              |                                     |  |
|--------------|-------------------------------------|--|
| • Body lice  | <i>(Pediculus humanus corporis)</i> | Larger in size than head or pubic lice<br>Live in seams of clothing            |
| • Head lice  | <i>(Pediculus humanus capitis)</i>  | Live on scalp, eyebrows, eyelashes; most common in children                    |
| • Pubic lice | <i>(Phthirus pubis; "crabs")</i>    | Live in pubic area, occasionally on other coarse hair such as armpits or beard |

Scabies is a skin disease caused by mites, a type of parasite, penetrating the skin to dig burrows. The mite lays its eggs underneath the skin in these burrows causing intense itching. The itching can lead to further breaks in the skin which can become infected. One type of scabies, crusted scabies, is a severe form that can occur in persons who are immunocompromised (have a weak immune system), elderly, disabled, or debilitated. It is also called Norwegian scabies. Persons with crusted scabies have thick crusts of skin that contain large numbers of scabies mites and eggs. Persons with crusted scabies are very contagious to other persons and can spread the infestation easily both by direct skin-to-skin contact and by contamination of items such as their clothing, bedding, and furniture.

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## How can you get infected?

Lice are transmitted by close direct contact with someone who has lice or with infected clothing, towels, or bedding. Lice crawl and cannot fly. You can get lice by:

- Head-to-head contact with someone who has head lice
- Re-using bedding and towels infected with lice
- Sharing personal items such as hats, towels, brushes, or combs of someone who has lice

The mite that causes scabies is usually spread through prolonged, direct skin-to-skin contact. Scabies is common in crowded areas with poor sanitation. Outbreaks have occurred in prisons, nursing homes, and child care facilities. Occupational scabies is primarily a risk with exposure to patients with crusted scabies where transmission can occur even after brief skin-to-skin contact, such as a handshake.

## What are the symptoms?

Intense itching is the main symptom. The lice, and symptoms, are typically found: along the scalp, at the waistband, in the armpits, at the bra strap, or anywhere clothing is tighter and closer to the body.

The signs and symptoms of lice may include:

- Intense itching
- Red bumps on skin
- Areas where skin has been excessively scratched
- Tiny white specks (eggs, or nits) on the bottom of hair shafts that are hard to remove
- Itching may persist for 2 to 4 weeks after lice have been removed

One complication of pediculosis results from the intense itching that leads to scratching of the skin. Once the skin is scratched, small cuts form and can become infected with bacteria. These parasites are also highly contagious and other family members need to be evaluated and treated as well.

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Body lice are known to spread epidemic typhus, trench fever, and louse-borne relapsing fever in conditions of unrest where good hygiene is not possible, such as war. Head and pubic lice do not spread disease.

Itching and skin rash from the immune system response to the mite are the most common symptoms. If a person has never had scabies before, symptoms may take as long as 4-6 weeks to begin. It is important to remember that an infested person can spread scabies during this time, even if he/she does not have symptoms yet. In a person who has had scabies before, symptoms usually appear much sooner (1-4 days) after exposure.

## How do you prevent it?

Scabies can be prevented by personal protective equipment to prevent direct skin-to-skin contact. Individuals who have had skin-to-skin contact with an infested individual should notify their infection control officer and seek medical attention. Prophylactic treatment may be indicated, particularly for crusted scabies. Other individuals within the fire station should be evaluated for unrecognized cases. Scabies sometimes also can be spread by contact with items such as clothing, bedding, or towels that have been used by a person with scabies, but such spread is very uncommon, with the exception of crusted scabies. However, as noted below, good hygiene requires that bed linens and clothing be laundered after each use.

Infestation with body lice is unlikely to last on anyone who bathes regularly and who has at least weekly access to freshly laundered clothing and bedding. Head lice are less easily removed and are NOT an indication of poor hygiene, as simple shampoos will not remove the adults or nits.

## Prevention:

- Do not share personal items such as bedding, towels or combs
- Launder community linens daily with hot water
- Using Universal Precautions
  - Hand hygiene (wash with soap and water or using an alcohol based hand rub)
  - Proper handling and disposal of instruments/devices and contaminated clothing

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## What should you do if you are exposed to lice or scabies or get infected with them?

A physician can diagnose the presence of lice through an exam of hair, skin and clothing.

Improved hygiene and access to regular changes of clean clothes is the only treatment needed for body lice infestations.

Head lice can be diagnosed at home by finding the nits or adults along the scalp. Treatment is recommended even if only one egg is found.

For head or lice:

- Use over-the-counter shampoos containing 1% permethrin; retreatment in 9 days to kill newly hatched eggs may be necessary
- Prescription shampoos containing malathion 0.5% or benzyl alcohol are recommended if treatment with over-the-counter shampoos is not successful
- Remove the nits (eggs)
  - Dishwashing detergent can help dissolve the 'glue' that helps nits stick
  - Nit combs are specially designed to remove the eggs
  - Repeat combing for nits in 7-10 days
- Consult a physician if the medications fail or for any signs of skin infection

Pubic lice are also treated with the above shampoos

For all lice infestation:

- Destroy or carefully wash infected clothing, bedding and towels in hot water (at least 130° F), then machine dry using a hot cycle.
- Items that cannot be washed in hot water must either be destroyed or sealed (suffocated) in plastic bags and not used for 10 - 14 days.
- Treat all potentially infected sources to eliminate reinfection.
  - Lice can live for varying periods off the human host:
    - Body lice: 5 - 10 days
    - Head lice: 2 days
    - Pubic lice: 1 day

Scabies mites do not survive more than 2-3 days away from human skin. Spraying or fumigating office or living areas is unnecessary. Transmission can occur even after brief skin-to-skin contact, such as a handshake, with a person who has crusted (Norwegian) scabies. In general, a person who has skin-to-skin contact with a person who has crusted scabies would be considered a good candidate for treatment.

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For More Information and Frequently Asked Questions (FAQs), check out:

- ✓ Centers for Disease Control and Prevention (CDC): <http://www.cdc.gov/parasites/lice/>
  - CDC, Scabies: <http://www.cdc.gov/parasites/scabies/>
  - CDC, Workplace Frequently Asked Questions:  
[http://www.cdc.gov/parasites/scabies/gen\\_info/faq\\_workplace.html](http://www.cdc.gov/parasites/scabies/gen_info/faq_workplace.html)

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