

Prevention and Treatment of Head Lice

What are head lice?

The head louse, or *Pediculus humanus capitis*, is a parasitic insect that can be found on the head, eyebrows, and eyelashes of people. Head lice feed on human blood several times a day and live close to the human scalp. Head lice are not known to spread disease.

Who is affected by head lice?

Head lice are found worldwide. In the United States, infestation with head lice is most common among preschool children attending child care, elementary schoolchildren, and the household members of infested children. Although reliable data on how many people in the United States get head lice each year are not available, an estimated 6 million to 12 million infestations occur each year in the United States among children 3 to 11 years of age. In the United States, infestation with head lice is much less common among African-Americans than among persons of other races, possibly because the claws of the head louse found most frequently in the United States are better adapted for grasping the shape and width of the hair shaft of other races.

Head lice move by crawling; they cannot hop or fly. Head lice are spread by direct contact with the hair of an infested person. Anyone who comes in head-to-head contact with someone who already has head lice is at greatest risk. Spread by contact with clothing (such as hats, scarves, coats) or other personal items (such as combs, brushes, or towels) used by an infested person is uncommon. Personal hygiene or cleanliness in the home or school has nothing to do with getting head lice.

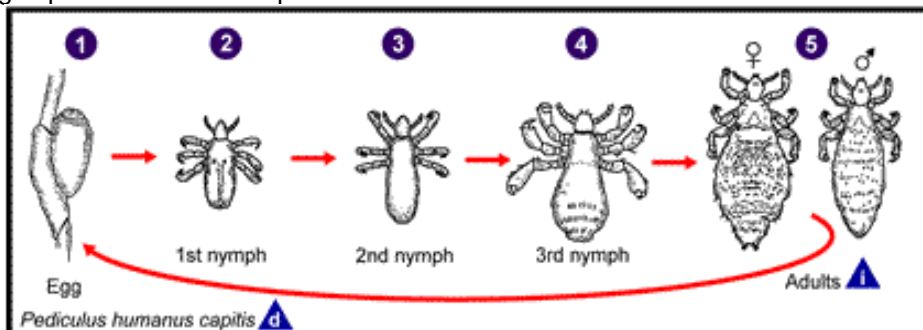
What to do if an infestation occurs?

Treatment for head lice is recommended for persons diagnosed with an active infestation. All household members and other close contacts should be checked; those persons with evidence of an active infestation should be treated. Some experts believe prophylactic treatment is prudent for persons who share the same bed with actively-infested individuals. All infested persons (household members and close contacts) and their bedmates should be treated at the same time.

How can we prevent head lice?

The following are steps that can be taken to help prevent and control the spread of head lice: ²

- Avoid head-to-head (hair-to-hair) contact during play and other activities at home, school, and elsewhere (sports activities, playground, slumber parties, camp). Do not share clothing such as hats, scarves, coats, sports uniforms, hair ribbons, or barrettes.
- Do not share combs, brushes, or towels. Disinfest combs and brushes used by an infested person by soaking them in hot water (at least 130°F) for 5–10 minutes.
- Do not lie on beds, couches, pillows, carpets, or stuffed animals that have recently been in contact with an infested person.
- Machine wash and dry clothing, bed linens, and other items that an infested person wore or used during the 2 days before treatment using the hot water (130°F) laundry cycle and the high heat drying cycle. Clothing and items that are not washable can be dry-cleaned OR sealed in a plastic bag and stored for 2 weeks.
- Vacuum the floor and furniture, particularly where the infested person sat or lay. However, spending much time and money on housecleaning activities is not necessary to avoid reinfestation by lice or nits that may have fallen off the head or crawled onto furniture or clothing.
- Do not use fumigant sprays or fogs; they are not necessary to control head lice and can be toxic if inhaled or absorbed through the skin.¹
- Additional information can be found at the CDC Prevention and Control site: <https://www.cdc.gov/parasites/lice/head/prevent.html>



~Centers for Disease Control and Prevention (CDC). <https://www.cdc.gov/parasites/lice/head/biology.html>

1. Centers for Disease Control and Prevention (CDC). https://www.cdc.gov/parasites/lice/head/gen_info/faqs.html
2. Centers for Disease Control and Prevention (CDC). <https://www.cdc.gov/parasites/lice/head/prevent.html>

Treatment:

Treatment for head lice is recommended for persons diagnosed with an active infestation. All household members and other close contacts should be checked; those persons with evidence of an active infestation should be treated. Some experts believe prophylactic treatment is prudent for persons who share the same bed with actively-infested individuals. All infested persons (household members and close contacts) and their bedmates should be treated at the same time.

Some pediculicides which kill lice also kill eggs. For pediculicides that are only weakly ovicidal or not ovicidal, routine retreatment is recommended. For those that are more strongly ovicidal, retreatment is recommended only if live (crawling) lice are still present several days after treatment (see recommendation for each medication). To be most effective, retreatment should occur after all eggs have hatched but before new eggs are produced.

When treating head lice, supplemental measures can be combined with recommended medicine (pharmacologic treatment); however, such additional (non-pharmacologic) measures generally are not required to eliminate a head lice infestation. For example, hats, scarves, pillow cases, bedding, clothing, and towels worn or used by the infested person in the 2-day period just before treatment is started can be machine washed and dried using the hot water and hot air cycles because lice and eggs are killed by exposure for 5 minutes to temperatures greater than 53.5°C (128.3°F). Items that cannot be laundered may be dry-cleaned or sealed in a plastic bag for two weeks. Items such as hats, grooming aids, and towels that come in contact with the hair of an infested person should not be shared. Vacuuming furniture and floors can remove an infested person's hairs that might have viable nits attached.

Treat the infested person(s): Treatment requires using an Over-the-counter (OTC) or prescription medication.

Follow these treatment steps:

- Apply lice medicine, also called pediculicide, according to the instructions contained in the box or printed on the label. If the infested person has very long hair (longer than shoulder length), it may be necessary to use a second bottle. Pay special attention to instructions on the label or in the box regarding how long the medication should be left on the hair and how it should be washed out. Have the infested person put on clean clothing after treatment.
- If a few live lice are still found 8–12 hours after treatment, but are moving more slowly than before, do not retreat. The medicine may take longer to kill all the lice. Comb dead and any remaining live lice out of the hair using a fine-toothed nit comb.
- If, after 8–12 hours of treatment, no dead lice are found and lice seem as active as before, the medicine may not be working. Do not retreat until speaking with your healthcare provider; a different pediculicide may be necessary. If your healthcare provider recommends a different pediculicide, carefully follow the treatment instructions contained in the box or printed on the label.
- Nit (head lice egg) combs, often found in lice medicine packages, should be used to comb nits and lice from the hair shaft. Many flea combs made for cats and dogs are also effective.
- After each treatment, checking the hair and combing with a nit comb to remove nits and lice every 2–3 days may decrease the chance of self-reinfestation. Continue to check for 2–3 weeks to be sure all lice and nits are gone. Nit removal is not needed when treating with spinosad topical suspension.
- Retreatment is meant to kill any surviving hatched lice before they produce new eggs. For some drugs, retreatment is recommended routinely about a week after the first treatment (7–9 days, depending on the drug) and for others only if crawling lice are seen during this period. Retreatment with lindane shampoo is not recommended.

Supplemental Measures: Head lice do not survive long if they fall off a person and cannot feed. You don't need to spend a lot of time or money on housecleaning activities. Follow these steps to help avoid re-infestation by lice that have recently fallen off the hair or crawled onto clothing or furniture.

- Machine wash and dry clothing, bed linens, and other items that the infested person wore or used during the 2 days before treatment using the hot water (130°F) laundry cycle and the high heat drying cycle. Clothing and items that are not washable can be dry-cleaned **OR** sealed in a plastic bag and stored for 2 weeks.
- Soak combs and brushes in hot water (at least 130°F) for 5–10 minutes.
- Vacuum the floor and furniture, particularly where the infested person sat or lay. However, the risk of getting infested by a louse that has fallen onto a rug or carpet or furniture is very small. Head lice survive less than 1–2 days if they fall off a person and cannot feed; nits cannot hatch and usually die within a week if they are not kept at the same temperature as that found close to the human scalp. Spending much time and money on housecleaning activities is not necessary to avoid reinfestation by lice or nits that may have fallen off the head or crawled onto furniture or clothing.
- Do not use fumigant sprays; they can be toxic if inhaled or absorbed through the skin.
- Specific over-the-counter and prescription medication information can be found at <https://www.cdc.gov/parasites/lice/head/treatment.html>.