

## Head Lice Prevention and Control

*The head louse, or *Pediculus humanus capitis*, is a parasitic insect. Lice live close to the scalp and feed on human blood. While their bites cause itching and irritation, lice are not known to spread disease.*

### Exposure Risk

Head lice are found worldwide. In the United States, infestation with head lice most commonly occurs among children and their family members. Reliable data on how many adults get head lice each year are not available, but an estimated 6 to 12 million infestations occur annually in the U.S. among children 3 to 11 years old.

Head lice move by crawling; they cannot hop or fly. They typically are spread by direct contact with the hair of an infested person. Personal hygiene or cleanliness in the workplace, home or school has nothing to do with getting head lice, public health officials say. Lice do not survive long if they fall off a person and cannot feed. Spread by contact with clothing, personal items such as combs or brushes, or bedding, towels or furnishings used by an infested person is uncommon.

Dogs, cats and other pets do not spread head lice.

### Recognition

Lice and nits are found almost exclusively on the scalp, particularly around and behind the ears and near the neckline at the back of the head. Occasionally they may be found on eyelashes or in eyebrows.

Head lice have three forms: egg or nit, nymph and adult. Even as adults they can be hard to see.

**Egg/Nit:** Oval-shaped nits are laid at the base of the hair shaft close to the scalp. They often are yellow or white, although they may appear to be the same color as the hair of the infested person. Nits generally take eight to nine days to hatch. Eggs that are likely to hatch are usually located no more than a quarter inch from the scalp. Nits found higher up on the hair shaft may have already hatched. Nits are firmly cemented to the hair and can be difficult to remove, even after the nymphs hatch and empty casings remain.

**Nymph:** A nymph is an immature louse that hatches from the nit. To live, a nymph must feed on blood. Nymphs mature into adults about nine to 12 days after hatching.

**Adult:** The adult louse is about the size of a sesame seed, has six legs and is tan-to-grayish-white in color. An adult head louse can live about 30 days on a person's head but will die within one or two days if it falls off. Adult female head lice are usually larger than males and can lay about six eggs a day.



## Signs and Symptoms

The following are signs and symptoms of a head lice infestation:

- Tickling feeling of something moving in the hair.
- Itching caused by an allergic reaction to bites.
- Irritability and difficulty sleeping; head lice are most active in the dark.
- Sores on the head caused by scratching.

## Diagnosis and Treatment

Finding nits or lice in the hair and related symptoms usually leads to detection of infestation. It may be necessary to use a magnifying lens and fine-toothed comb to find live lice and confirm a diagnosis. Nits firmly at the base of hair shafts strongly suggests, but does not confirm, that a person is infested and should be treated. If no live nymphs or adult lice are seen and nits appear higher on the hair shaft, the infestation is probably inactive and does not need to be treated.

If you are unsure, visit a medical professional to confirm the diagnosis and recommend treatment.

Treatment for head lice is recommended for persons diagnosed with an active infestation. Head sores can sometimes become infected with bacteria and may require additional evaluation and treatment. All household members and other close contacts should be checked and receive treatment if infested. As a precaution, some experts recommend treating an infested person's bedmate.

Over-the-counter lice medicine should be applied according to the instructions on the box or printed on the label, including how long it should be left on the hair and how it should be washed out. If the infested person has hair longer than shoulder length, it may be necessary to use a second bottle.

If a few live lice are still visible eight to 12 hours after treatment but are moving more slowly than before, do not retreat. The medicine may take longer to kill all the lice. If the medicine does not appear to be working, do not retreat with it. Consult a medical professional.



## Prevention

Preventive measures should be combined with medication to kill lice and prevent their spread. The following steps are recommended:

1. Avoid head-to-head contact with an infested child or adult. Do not share items such as bedding, towels, headwear, neck scarves and grooming aids that come into contact with the hair of an infested person.
2. Comb dead and any remaining live lice out of the hair using a fine-tooth nit comb. Most over-the-counter medication comes with a comb or one can be purchased separately. Checking the hair and combing to remove nits and lice every two to three days after treatment may decrease the chance of self-reinfestation. Continue to check for two to three weeks to be sure all lice and nits are gone.
3. Have an infested person put on clean clothing after treatment. Wash items used by an infested person in the two-day period before treatment starts. Wash in hot water (130°F) and hot air cycles; lice and eggs are killed by exposure for five minutes to temperatures greater than 128.3°F. Items that cannot be laundered may be dry-cleaned or sealed in a plastic bag for two weeks.
4. Soak combs and brushes in hot water (at least 130°F) for five to 10 minutes.
5. Use a vacuum to pick up fallen hair on carpets, couches, chairs and beds.
6. 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.
7. To learn more, refer to the Centers for [Disease Control and Prevention head lice website](#).

