

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 at risk for getting head lice?

In the United States, head lice is most common among children attending child care, preschool or elementary school and among those who live in the households with these children. Head lice are spread by direct contact with the hair of an infested person. It is not common for head lice to be spread by contact with clothing, towels, brushes, or combs of an infested person. Personal hygiene or cleanliness in the home or school has nothing to do with getting head lice.

It is estimated that there are 6-12 million cases of head lice per year in the US amongst children 3 to 11 years of age. African Americans are much less susceptible to head lice than other races.

What do head lice look like?

Egg/Nit: Nits are lice eggs laid by the adult female head louse at the base of the hair shaft nearest the scalp. Nits are firmly attached to the hair shaft and are oval-shaped and very small (about the size of a knot in thread) and hard to see. Nits often appear yellow or white although live nits sometimes appear to be the same color as the hair of the infested person. Nits are often confused with dandruff, scabs, or hair spray droplets. Head lice nits usually take about 8-9 days to hatch. Eggs that are likely to hatch are usually located no more than $\frac{1}{4}$ inch from the base of the hair shaft. Nits located further than $\frac{1}{4}$ inch from the base of hair shaft may very well be already hatched, non-viable nits, or empty nits or casings. This is difficult to distinguish with the naked eye.



Nymph: A nymph is an immature louse that hatches from the nit. A nymph looks like an adult head louse but is smaller. To live, a nymph must feed on blood. Nymphs mature into adults about 9-12 days after hatching from the nit.

Adult: The fully grown and developed adult louse is about the size of a sesame seed, has six legs, and is tan to grayish white in color. Adult head lice may look darker in persons with dark hair than in persons with light hair. To survive, adult head lice must feed on blood. 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 a person. Adult female head lice are usually larger than males and can lay about six eggs each day.

Where are head lice most commonly found?

Head lice and head lice nits are found almost exclusively on the scalp, particularly around and behind the ears and near the neckline at the back of the head. Head lice or head lice nits sometimes are found on the eyelashes or eyebrows, but this is uncommon. Head lice hold tightly to hair with hook-like claws at the end of each of their six legs. Head lice nits are cemented firmly to the hair shaft and can be difficult to remove even after the nymphs hatch and empty casings remain.

What are the symptoms of head lice infestation?

- Tickling feeling of something moving in the hair
- Itching, caused by an allergic reaction to the bites of the head louse
- Irritability and difficulty sleeping; head lice are most active in the dark
- Sores on the head caused by scratching. These sores can sometimes become infected with bacteria found on the person's skin.

How does someone get head lice?

Head-to-head contact with an already infested person is the most common way to get head lice. Head-to-head contact is common during play at school, at home, and elsewhere (sports activities, playground, slumber parties, camp).

Although uncommon, head lice can be spread by sharing clothing or belongings. This happens when lice crawl, or nits attached to shed hair hatch, and get on the shared clothing or belongings. Examples include:

- sharing clothing (hats, scarves, coats, sports uniforms) or articles (hair ribbons, barrettes, combs, brushes, towels, stuffed animals) recently worn or used by an infested person;
- or lying on a bed, couch, pillow, or carpet that has recently been in contact with an infested person.

Dogs, cats, and other pets do not play a role in the spread of head lice.

How is head lice diagnosed?

The diagnosis of a head lice infestation is best made by finding a live nymph or adult louse on the scalp or hair of a person. Because nymphs and adult lice are very small, move quickly, and avoid light, they can be difficult to find. Use of a magnifying lens and a fine-toothed comb may be helpful to find live lice. If crawling lice are not seen, finding nits firmly attached within a ¼ inch of base of the hair shafts strongly suggests, but does not confirm, that a person is infested and should be treated. Nits that are attached more than ¼ inch from the base of the hair shaft are almost always dead or already hatched. Nits are often confused with other things found in the hair such as dandruff, hair spray droplets, and dirt particles. If no live nymphs or adult lice are seen, and the only nits found are more than ¼-inch from the scalp, the infestation is probably old and no longer active and does not need to be treated. If you are not sure if a person has head lice, the diagnosis should be made by their health care provider, local health department, or other person trained to identify live head lice.

Do head lice spread disease?

No, head lice do not spread disease. Head lice should not be considered a medical or public health hazard. Their presence however can be a nuisance since it may cause itching, scratching, or loss of sleep.

How is head lice treated?

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 (medicines that kill lice) have an ovicidal effect (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, pillowcases, 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.

Head lice do not survive long if they fall off of the infected person. These supplemental measures can help to prevent re-infestations:

- Machine wash and dry clothing and bed linens using hot water and the high heat cycle.
- Head lice and eggs are killed by exposure for 5 minutes to temperatures of 129° F or higher.
- Clothing or items that cannot be washed or dry-cleaned should be sealed in a plastic bag for two weeks to kill any remaining lice or eggs.
- Soak combs and brushes in hot water (at least 129°) for 5-10 minutes.
- Vacuum the floor and furniture.

For more information:

Visit the Centers for Disease Control and Prevention's website at <https://www.cdc.gov/parasites/lice/head/index.html> or call Huron County Public Health at 419-668-1652 ext. 230.