

What is head lice infestation?

The head louse (*Pediculous humanus capitus*) is one of three types of lice that can infest people. These insects are about the size of a sesame seed and live in human hair where they feed on tiny amounts of human blood. Head lice are hard to see because they are very small, avoid light, and move fast. It is easier to see their eggs (called nits), which resemble dandruff, but are attached to the base of the hair, close to the scalp. Head lice live only on humans—they do not live on pets.

Who gets head lice infestation?

Anyone can get head lice. Infestation with head lice is most common among children attending child care and elementary school, and their household members and caretakers. Head lice can also be seen in group settings, such as sports teams and camps.

How is head lice infestation spread?

Head lice move by crawling; they cannot hop or fly, so they are usually spread by direct contact with the hair of a person infested with head lice. The most common way to get head lice is by head-to-head contact with a person who already has head lice. Less common ways to spread head lice are by indirect contact with shared objects, such as combs, brushes, hats, or other personal items. Head lice can be spread as long as lice or eggs remain alive on the person with head lice or in their clothing. Head lice need human blood to survive. They usually do not survive for more than two days away from the human body.

What are the symptoms of head lice infestation?

Head lice are not known to spread disease, but they can bite the scalp and cause itching, which can lead to scratching and sores. The sores can sometimes become infected with bacteria found on the person's skin. Indications of head lice infestation include: the tickling feeling of something moving in the hair, itching, feeling irritable or having difficulty sleeping, and having sores on the head caused by scratching.

How soon after exposure do symptoms appear?

Itching might begin a few days to several weeks after infestation.

How is head lice infestation diagnosed?

Head lice infestation is diagnosed by finding a live, crawling louse on the scalp or hair of a person. A fine-tooth comb and magnifying glass might be needed in order to see them. If crawling lice are not seen, finding nits attached firmly within $\frac{1}{4}$ inch of the base of hair shafts suggests, but does not confirm, the person is infested. Nits frequently are seen on hair behind the ears and near the back of the neck. Nits that are attached more than $\frac{1}{4}$ inch from the base of the hair shaft are almost always hatched or dead. Misdiagnosis of head lice infestation is common because nits can be confused with other particles found in hair, such as dandruff, hair spray droplets, and dirt particles. If no nymphs or adults are seen, and the only nits found are more than $\frac{1}{4}$ inch from the scalp, then the infestation is probably old and no longer active and does not need to be treated.

What is the treatment for head lice infestation?

Persons diagnosed with an active infestation and usually their bedmates should be treated with a medicine that is effective against lice (called a pediculicide). All household members and other close contacts should be checked and everyone found to be infested should be treated on the same day. Detailed guidelines for head lice treatment can be found at <http://www.cdc.gov/parasites/lice/head/treatment.html>.

Four critical steps should be followed to control an infestation of head lice:

1. Use an effective head louse treatment. Doctors can recommend a medicated shampoo, cream, or lotion to kill head lice. These can be over-the-counter or prescription medications and need to be applied according to the instructions contained in the box or printed on the label. Retreatment is generally recommended for some prescription and non-prescription (over-the-counter) drugs after 7-9 days in order to kill any surviving hatched lice before they produce new eggs.
2. Remove nits from the head (combing). Remaining eggs should be removed from the hair shafts with a special nit comb or fine-tooth comb often found in the product package (metal combs are much more effective than plastic). Many flea combs made for cats and dogs are also effective. Checking the hair a small section at a time under a bright light or lamp that can be directed at the area being worked on and using a magnifying glass makes the nits easier to find. Tissues to clean the comb, a plastic bag for the discarded tissues, and hair clips to pin up the sections of hair that have been combed are also helpful. This might take an hour or more, so an entertaining video might help keep the child occupied.
3. Remove lice and nits from the household by vacuuming, storing, washing, or freezing objects suspected of being infested. All clothing, bed linens, and other items that a person infested with lice used during the two days before treatment should be washed using the hot water laundry cycle and the high heat drying cycle. Items that are not machine-washable should be dry cleaned or sealed in a plastic bag for two weeks (enough time for any eggs to hatch and the lice to die). Vacuum the floor and furniture, particularly where the infested person sat or laid.
4. Check heads daily and remove nits until infestation is gone, followed by weekly head checks to detect re-infestation. Every 2-3 days, comb the hair with a nit comb to remove nits and lice to decrease the chance of re-infestation. This should continue for 2-3 weeks to be sure that all lice and nits are gone.

If, after 8-12 hours of treatment, no dead lice are found and lice seem as active as before, the medicine might not be working. Speak with your healthcare provider; a different medicine might be necessary. If your healthcare provider recommends a different product, carefully follow the treatment instructions contained in the box or printed on the label.

Suffocation of head lice with olive oil, mayonnaise, butter, margarine, or any similar food-grade product is not recommended. In addition, do **not** use motor or machine oils, or kerosene, as these materials can be harmful. Pet shampoo should **not** be used to treat a lice infestation. Fumigant sprays or fogs should **not** be used because these can be toxic if inhaled or absorbed through the skin.

How can head lice infestation be prevented?

Head lice can be prevented by avoiding head-to-head contact during play and other activities and not sharing personal items, such as clothing, combs, brushes, hats, scarves, barrettes, helmets, or towels.

To prevent re-infestation and spread of head lice, the hair of everyone in the household should be checked when anyone is found to have head lice. Everyone with head lice, as well as any persons who share the same bed with actively-infested individuals, should be treated on the same day. Individuals should be able to return to school/daycare and their usual activities after the first treatment. "No-nits" policies that require a child to be free of nits before he or she can return to school or child care are not generally necessary.

How can I get more information about head lice?

- If you have concerns about head lice, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/local-health-districts/>.
- Visit the Centers for Disease Control and Prevention website at <http://www.cdc.gov/parasites/lice/head/>.

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