

## **HEAD LICE FACT SHEET**

### **Overview**

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 a medical or public health hazard. Head lice are not known to spread disease.

Head lice have three forms:

- **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 eight to nine 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 nine to 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.

### **Signs and Symptoms**

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.

The signs and symptoms of head lice infestation are:

- 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); and
- Sores on the head caused by scratching. These sores can sometimes become infected with bacteria found on the person's skin.

### **Causes and Transmission**

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. This can happen during play at school, at home and elsewhere (sports activities, playground, slumber parties, camp). **Personal hygiene or cleanliness in the home or school has nothing to do with getting head lice.**

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; and
- 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.

### **Risk Factors**

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.

### **Diagnosis**

Misdiagnosis of head lice infestation is common. The diagnosis of head lice infestation is best made by finding a live nymph or adult louse on the scalp or hair of a person.

Because adult and nymph lice are very small, move quickly and avoid light, they may be difficult to find. Use of a fine-toothed louse comb may facilitate identification of live lice.

If crawling lice are not seen, finding nits attached firmly within ¼ 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 ¼ inch from the base of the hair shaft are almost always already hatched or dead. Head lice and nits can be visible with the naked eye, although use of a magnifying lens may be necessary to find crawling lice or to identify a developing nymph inside a viable nit. Nits are often confused with other particles found in hair, such as dandruff, hair spray droplets and dirt particles. 3

If no nymphs or adults are seen, and the only nits found are more than ¼ inch from the scalp, then the infestation is probably old and no longer active – and does not need to be treated.

### **Treatment**

See Head Lice Treatment page.

### **Prevention**

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

- 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 five to 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 two 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 two 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.

To help control a head lice outbreak in a community, school or camp, children can be taught to avoid activities that may spread head lice.

### **Additional Information**

Centers for Disease Control and Prevention:  
<http://www.cdc.gov/parasites/lice/head/index.html>

*This fact sheet provides general information. Please contact your physician for specific clinical information.*

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