

OSPI Infectious Disease Control Guide for School Staff, April 2004.

Head Lice (*Pediculus humanus capitus*)

Description

Head lice appear as an infestation on the head, eyebrows, or eyelids. Head lice outbreaks are common in the United States among children between the ages of 3-12 years. Signs and symptoms of head lice infestation include:

1. Itching
2. A tickling feeling of something moving in the hair.
3. The detection of live lice.
4. Sores or scratch marks on the head caused by scratching.

There may also be eggs (nits) or egg cases attached to hairs. Head lice are not a health hazard or a sign of uncleanliness and are not responsible for the spread of any disease. Thus, infestation is principally a nuisance rather than a major threat to the student's well being. Head lice are the cause of much embarrassment, misunderstanding, many unnecessary days lost from school and work, millions of dollars spent on remedies, and many hours spent on the misuse of remedies. Approaches to controlling the spread of head lice have evolved over the years and continue to evolve. Some chemical agents used in the past to eradicate head lice have proven to be dangerous and toxic to the children.

Mode of Transmission

Transmission of head lice occurs only by direct contact with a live louse through head-to-head contact or through contact with personal articles such as hats or combs. Transmission may be through play at school and at home (slumber parties, sports activities, at camp, on a playground). Other transmission could be through lying on a bed, couch, pillow, or stuffed animal that has recently been in contact with an infected person. Lice cannot jump, hop, or fly. Live lice can be transmitted as long as the lice remain alive on a person's head or on their clothing. Lice cannot live away from a human host; most die within 7 days.

Incubation Period

Head lice eggs normally hatch in 7-10 days. Mature head lice are capable of laying eggs 8-10 days after hatching. The adult life span is about 1 month.

Infectious Period

Head lice may be transmitted as long as the lice remain alive on an infested person. Live eggs (nits) may or may not hatch. Only if eggs hatch do they cause further transmission from head to head. As stated above, the adult life span is about 1 month. A student with active head lice has likely had the infestation for a month or more by the time it is discovered. Therefore, that student poses little risk of transmitting live lice to others for 1 day. By removing nits, the possibility of hatching new lice is minimized.

How to screen: Choose a well-lit area. Examine the student's scalp and hair, especially at the base of the scalp near the nape of the neck and behind the ears. Separate the hair and look for adult lice. A lice egg hatches into a baby louse called a nymph. It looks like an adult head louse, but is much smaller. Nymphs mature into adults about 7 days after hatching. The adult louse is about the size of a sesame seed, has six legs, and is tan to grayish-white in color. In persons with dark hair, the adult louse will look darker. Females lay eggs (nits) and they are usually larger than males. Anything removed from the hair, including particles thought to be eggs (nits), should be confirmed by looking at them through a magnifying glass or low-powered microscope. Finding eggs (nits) within one-quarter inch indicates likely infestation and the student should be treated. However, finding only hatched eggs (empty nit casings) may simply be evidence of a past infestation.

Treatment: Chemical products to kill live lice are available over-the-counter and by prescription. Inappropriate use of chemical products may have toxic effects, so package instructions should be followed scrupulously. Chemical treatment is not recommended for children under the age of 2 years. If the problem persists, the child's health care provider should be consulted. Remember to keep all medication away from small children. **One percent gamma benzene hexachloride lotions (Lindane, Kwell) are not recommended.** Additional information may be found on the CDC Web site at: <http://www.cdc.gov/ncidod/dpd/parasites/headlice/>.

Additional instructions:

- a. Follow chemical treatment instructions fully, including not using a creme rinse or combination shampoo/conditioner before using the lice medicine and not re-washing hair for 1-2 days after treatment.
- b. Nit comb and/or finger-pick out all adult lice, nymphs, and eggs (nits) that are found. Continue to nit comb twice daily for 2 weeks removing nits as they mature.
- c. Notify others that may be affected (school, church, child care, friends, family).
- c. Examine all household members (including adults) for lice and eggs (nits) and treat only if crawling lice or eggs (nits) are found.
- d. Soak all combs and brushes for 1 hour in rubbing alcohol or Lysol or wash with soap and hot water (130 degrees F).
- f. Machine wash all washable clothing and bed linens that the infested person touched during the 2 days before treatment. Use hot water (130 degrees F) to wash clothes. Dry laundry using the hot cycle for at least 20 minutes.
- g. Dry-clean clothing that is not washable (coats, hats, scarves, etc.) or store all clothing, stuffed animals, comforters, etc., that cannot be washed or dry-cleaned, in a plastic bag and seal for 2 weeks.
- h. Vacuum floors and furniture. **Do not** use environmental sprays. They can be toxic if inhaled.
- i. Student may return to school after treatment for live lice has occurred and agreement made to continue nit combing twice daily for 2 weeks. Recheck your student's head in 8-10 days. If live lice are present, you will need to treat again.
- j. Call the school nurse for more information.