

What are head lice?

Head lice are small (1/10 to 1/8 inch in length), wingless, insects that feed solely on humans. The scientific name for head lice is *Pediculus capitus*. They are different from other lice that infest humans such as the pubic (crab) louse and the body louse. They can be distinguished from pubic lice in both appearance and behaviors. They look very similar to body lice, but their behaviors are quite different.



Head louse, *Pediculus capitus*.

How do head lice feed?

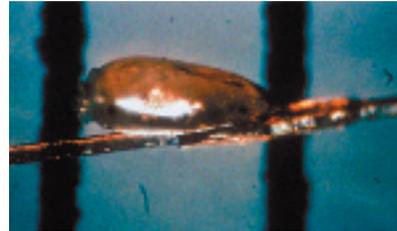
Head lice are parasites that feed on human blood. They live in human head hair and are most often found on school-aged children. Pubic lice infest only coarse pubic hair and sometimes eyelashes. Body lice harbor on clothing.

Head lice' claws grasp human hair very firmly. When head lice feed, tiny hooks surrounding the mouth grasp the scalp. They feed several times per day but do not become engorged as body lice do. Head lice deposit their eggs, called nits, on hairs 1/4 inch from the scalp. Body lice deposit their eggs on clothing.

Head lice are not known to directly transmit disease, but the bloodsucking causes intense itching, which may lead to infections.

How can you tell if you have head lice?

Infestations are characterized by a persistent itch of the scalp that often results in rashlike, infected scratch marks. Examination with a magnifying glass and flashlight will help reveal the small, grayish white eggs or nits attached to the hair. The crawling lice are often hard to see and locate. They are usually on the scalp and sometimes few in number. If you have a school-aged child, you should examine the child's head on a regular basis, perhaps once a week, as part of a regular hygiene routine.



Head louse nits are about the size of a poppy seed.

How do head lice develop?

Adult head lice live about one month. During that time, an adult female will lay about 90 eggs (nits) which are solidly glued near the base of the hair shaft. The nits are very small and hatch in about one week. The young crawling forms mature into reproducing adults in 7 to 10 days. They live near the scalp where temperatures are 80 degrees F or above. They can only live 2 to 3 days off of the head because lower temperatures shorten their survival.

How do head lice spread?

Head lice do not hop, jump, or fly from one person to another. Spread occurs through sharing of clothing or belongings such as hats, brushes, combs, towels, coats, and bedding. They can also be spread through head to head contact or from the backs of chairs and other furniture the head lies on.

REMEDIES TO AVOID

There's no shortage of advice on what to do about head lice. Much of it is unproven, dubious, or even dangerous:

- Commercial lice sprays and home fumigation are usually unnecessary and not worth the health risk.
- There are many claims for use of oil-based treatments such as olive oil, tea-tree oil, margarine, and mayonnaise. While it's true that lice will die after many hours of immersion in oil, there is no reliable proof this will happen on someone's head.
- Applying gobs of petroleum jelly to the head and leaving it on overnight under a shower cap may smother lice, but the sticky stuff holds lint, dust, and crumbs that can interfere with nit identification.
- Some parents resort to the desperate remedy of shaving a child's head. It is needlessly upsetting to the child and, with careful nit removal, unnecessary.

What do you do when you find head lice?

It is important to inform the school or day care when you find head lice on your child. Know what the school's plan is for dealing with head lice including treatment recommendations and readmission policy. Anyone can get head lice. Be sure to inspect all family members. Carry out the head lice treatment immediately and completely. Treatment recommendations:

- Treat all members of the family who are infested at the same time. Change all clothing and bedding at the time of treatment.
- Wash bedding, hairbrushes, and knit caps in hot water to be sure any nits on fallen hairs are killed. Water temperatures between 140 and 165 degrees F for 10 to 15 minutes will kill lice and nits. Head lice can also be killed by exposing them to freezing temperatures for 12 hours.
- Vacuum all surfaces where children lie or play (including stuffed toys). In day care centers and kindergartens, napping mats should be wiped or vacuumed.
- Clean rugs or remove them for 10 days after vacuuming. Sealing clothing in plastic bags for 7 to 10 days will also kill head lice.

Children should be educated about how head lice are spread. Tell your child not to share combs, hair ornaments, or hats. Storing jackets in a large backpack or plastic bag rather than on a communal hook at school will also prevent spread.

What are the available controls for head lice?

Do not apply pesticides to rooms, toys, or furniture surfaces. A variety of medications to kill head lice are available for purchase over-the-counter or by prescription from your doctor. To be effective, all medications must be used in the manner stated on the products' label directions. Pyrethrum-based medicated shampoos should be applied to dry hair; wet lice don't absorb the medication as well. Do not apply any medication more than directed.

Special combs are needed after the shampoo medication to remove nits or live parasites. **Some shampoo medications may not kill all nits; comb removal is part of the treatment.** If the treatment doesn't kill the lice after following the label directions, repeated treatments will not help. The lice have likely become resistant to the medicated shampoo. Repeated combing will aid in their removal.

For advice on how to control head lice, contact your physician, local health department, and/or school nurse.



Comb hair with a special nit comb.

New, December 2006. Developed by the MSU Pesticide Safety Education Program, B18 Food Safety and Toxicology Building, Michigan State University, East Lansing, MI 48824 (<http://www.pested.msu.edu>) and the Michigan Department of Agriculture.



MSU is an affirmative-action, equal-opportunity institution. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status, or family status. Issued in furtherance of MSU Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Thomas G. Coon, Extension Director, Michigan State University, East Lansing, MI 48824.

Questions and Answers About Head Lice

Guidelines to help you solve head lice problems



Community IPM Education Series
MSU Pesticide Safety Education Program
Extension Bulletin E-2976