

Head Lice Infestation

What are head lice?

Also called *Pediculus humanus capitis* (peh-DICK-you-lus HUE-man-us CAP-ih-TUS), head lice are parasitic insects found on the heads of people. Having head lice is very common. However, there are no reliable data on how many people get head lice in the United States each year.

Who is at risk for getting head lice?

Anyone who comes in close contact (especially head-to-head contact) with someone who already has head lice is at greatest risk. Occasionally, head lice may be acquired from contact with clothing (such as hats, scarves, coats) or other personal items (such as brushes or towels) that belong to an infested person. Preschool and elementary-age children, 3-11, and their families are infested most often. Girls get head lice more often than boys, women more than men. In the United States, African-Americans rarely get head lice. Personal hygiene or cleanliness in the home or school has nothing to do with getting head lice.

What do head lice look like?

There are three forms of lice: the egg (also called a nit), the nymph, and the adult.



Actual size of the three lice forms compared to a penny.

Nit: Nits are head lice eggs. They are very small, about the size of a knot in thread, hard to see, and are often confused for dandruff or hair spray droplets. Nits are laid by the adult female at the base of the hair shaft nearest the scalp. They are firmly attached to the hair shaft. They are oval and usually yellow to white. Nits take about 1 week to hatch. Eggs that are likely to hatch are usually located within 1/4 inch of the scalp.

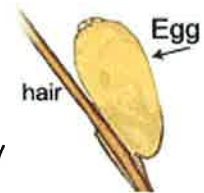


Illustration of egg on a hair shaft.



Nymph form

Nymph: The nit hatches into a baby louse called a nymph. It looks like an adult head louse, but smaller. Nymphs mature into adults about 7 days after hatching. To live, the nymph must feed on blood.

Adult: The adult louse is about the size of a sesame seed, has six legs, and is tan to greyish-white. In persons with dark hair, the adult louse will look darker. Females, which are usually larger than the males, lay eggs. Adult lice can live up to 30 days on a person's head. To live, adult lice need to feed on blood. If the louse falls off a person, it dies within 2 days.



Adult louse



Adult louse claw

Where are head lice most commonly found?

They are most commonly found on the scalp, behind the ears and near the neckline at the back of the neck. Head lice hold on to hair with hook-like claws found at the end of each of their six legs. Head lice are rarely found on the body, eyelashes, or eyebrows.

What are the signs and symptoms of head lice infestation?

- Tickling feeling of something moving in the hair.
- Itching, caused by an allergic reaction to the bites.
- Irritability.
- Sores on the head caused by scratching. These sores can sometimes become infected.

How did my child get head lice?

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 and at home (sports activities, on a playground, slumber parties, at camp).

Less commonly,

- Wearing clothing, such as hats, scarves, coats, sports uniforms, or hair ribbons, recently worn by an infested person.
- Using infested combs, brushes, or towels.
- Lying on a bed, couch, pillow, carpet, or stuffed animal that has recently been in contact with an infested person.

How is head lice infestation diagnosed?

An infestation is diagnosed by looking closely through the hair and scalp for nits, nymphs, or adults. Finding a nymph or adult may be difficult; there are usually few of them and they can move quickly from searching fingers. If crawling lice are not seen, finding nits within a 1/4 inch of the scalp confirms that a person is infested and should be treated. If you only find nits more than 1/4 inch from the scalp (and don't see a nymph or adult louse), the infestation is probably an old one and does not need to be treated. If you are not sure if a person has head lice, the diagnosis should be made by your health care provider, school nurse, or a professional from the local health department or agricultural extension service.

This fact sheet is for information only and is not meant to be used for self-diagnosis or as a substitute for consultation with a health care provider. If you have any questions about the disease described above or think that you may have a parasitic infection, consult a health care provider.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
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What are Head Lice?

Head lice are tiny wingless insects that live on the head and scalp of people, especially children. They are 1/16 to 1/8 inch in length which is about the size of a sesame seed and vary in color from tan to grey/white.



Picture is enlarged for visibility of head lice. Image courtesy of the National Pediculosis Association, www.headlice.org

Remember These Key Points:

- Anyone can get head lice
- Lice require blood to live
- Off the scalp, head lice rarely survive beyond two days
- Lice crawl very quickly
- Lice **do not** jump, fly or hop
- Lice is spread through direct contact, mainly head to head contact
- Sharing combs, brushes, hats, barrettes, etc. can also spread lice
- Pets **cannot** get or spread human head lice
- Lice is a nuisance but **not** a health hazard

What are Nits?

Nits are lice eggs that are very tiny and difficult to see. They vary in color from yellowish-brown to pearly white and are teardrop shaped.



Picture is enlarged for visibility of nits. Image courtesy of the National Pediculosis Association, www.headlice.org

Additional Key Details:

- Nits are firmly attached to the hair shaft close to the scalp, at the back of the head, and behind the ears with a waterproof glue-like substance
- The glue-like substance is so strong that the nits **cannot** be washed or flicked off with a fingernail
- Nits hatch in 7-10 days and become adult lice in 9-12 days
- As long as nits remain alive, head lice can be spread
- **Nits must be removed daily**

What are the Symptoms?

- Itching
- Tickling feeling of something crawling in the hair
- Scratch marks or red bite marks behind ears or back of the neck
- Irritability and sleeplessness because head lice are active at night

Steps to Treat Head Lice

1. Check every member of the family for live lice and nits.
2. Treat family members who have head lice with a lice-killing product. Products are available at stores that carry hair care products. Ask the pharmacist if you need help in choosing or locating a product.
3. It is important to **follow the label directions** on the product **EXACTLY**.
4. Remove all lice and nits with either a lice comb or by picking them out.
5. Check hair everyday for at least 14 days for any missed lice and nits and remove if present.
6. Repeat treatment **according to package directions**, usually in 7-10 days.
7. Remind individual **not to share** combs, hair barrettes, hats, scarves, helmets, or coats with other people.
8. If problems with lice persist, **call your** health care provider.

Steps to Clean the Home

1. Wash **all** pillows, bed sheets, stuffed animals, and clothing that the individual has used in hot water (at least 130 degrees).
2. Place items in the dryer at the hottest setting for at least 20 minutes.
3. Dry clean items that cannot be washed.
4. Place items that **cannot be cleaned or run through the dryer** (i.e. stuffed animals and toys) in a tightly sealed plastic bag for 10-14 days.
5. Wash **all** hair care items (combs, brushes, hair clips, etc.) in hot water (130 degrees) for 20 minutes.
6. Vacuum the **entire** house including rugs, furniture, floors, mattresses, and car including car seats to get rid of any hairs that may have viable nits attached.
7. After **all individuals** with head lice have been treated and the **entire** house has been cleaned, then bedding can be reapplied to the beds.
8. Sprays **should not** be used in the home. Sprays can be toxic. They are not safe for humans or the environment. Sprays can also be a trigger for individuals with breathing conditions such as asthma.

Resources

- Centers for Disease Control
<http://www.cdc.gov/lice/head/treatment.html>
- Harvard School of Public Health
<http://www.hsph.harvard.edu/headlice.html>
- National Pediculosis Association
www.headlice.org
- Tree of Life (image on front cover)
<http://toilweb.org/Anoplura/13871>

Head Lice: The Facts

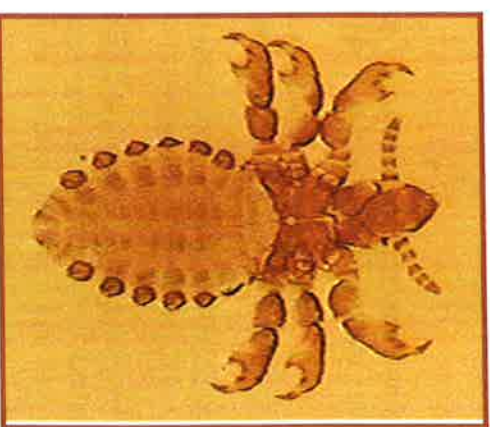


Image courtesy of V. Smith, 1996



www.health.state.pa.us

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FACTS of LICE

Head lice are especially common among school-age children who tend to exchange hats, combs, and other personal items. Head lice know no distinction of families and can be contracted by the cleanest individuals. Fall and Spring are the most common seasons for head lice. The following information is provided to assist you:

What are Lice?

The head louse 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.

The adult louse is about 3 mm long (about the size of a sesame seed), tan, gray, or brown. Lice are very small, flat wingless insects with stubby antenna and three pairs of legs that end in sharp curved claws. The female lays about four eggs a day on the hair shaft fairly close to the scalp and near the nape of the neck and behind the ears. The eggs or nits are very small, whitish in color and may be mistaken for dandruff. The eggs take about one week to hatch and three weeks to become adult at which time the female starts to lay eggs. Each louse survives about one month as a mature adult on a person's head but will die within one or two days if it falls off a person.

How are they spread?

Head lice are easily spread from one person to another by:

1. Coming in close contact (head-to-head) with an infected person.
2. Wearing infested clothing such as hats, scarves, coats, etc.
3. Using infested combs and brushes.
4. Lying on infested carpets, beds, upholstered furniture or car seats.
5. Head lice survive only by feeding on human blood. Eggs may survive for seven days away from the scalp.

What to look for:

1. Head lice should be suspected when there is intense itching and scratching of the scalp and the back of the neck.
2. A close examination of the scalp will reveal white, brown or gray eggs firmly attached to the hair shaft. The eggs may look like dandruff, but nits cannot be easily removed. Actual lice may be seen as well as many itchy red marks on the scalp. If crawling lice are not seen, finding nits firmly attached within a 1/4 inch of base of the hair shafts strongly suggests, but does not confirm, that a person is infested and should be treated. (Natural light or a magnifying glass may help.)

What to do if you find head lice:

1. Contact your physician for advice.
2. Follow the directions carefully on the recommended lice product. Pay special attention to the instructions on the bottle regarding how long the medication should be left on and whether rinsing the hair is recommended after treatment. Do not use a crème rinse or combination shampoo/conditioner before using lice medicine. Don't re-wash hair for 1-2 days after treatment. Treatment may need to be repeated in seven to ten days to kill newly hatched lice.
3. Remove all lice and nits. Several products may be recommended for this including a variety of fine-tooth combs. Alternatively, the nits may be effectively removed by running your fingernail down the effected hair shaft.
4. Check all family members for lice and nits every day for 2-3 weeks to make sure head lice are gone. Treat only those family members who do have lice.
5. Wash sheets and recently worn clothing (from the last 48 hours) in hot water and dry in a hot dryer.
6. Soak combs and brushes in hot (130 degrees F) water for 10 minutes (provided they will not be damaged by heat) or discard. Vacuum mattresses, rugs, bare floors, car seats and furniture that have been in contact with the affected person in the 24 or 48 hours before treatment. Use of lice sprays can be harmful to people and pets and is not recommended.
7. Any other potentially infected fabric item which cannot be soaked, washed or vacuumed (such as favorite plush toys) should be sealed tightly in a plastic bag for ten days.
8. Head lice is not transmitted from animals to humans, domestic pets *should not* be treated.
9. When you find a case of lice, tell others! Call parents with whom your child may have had close contact, school and daycares.

Return to School:

Anytime your child has been sent home from school due to lice, or if you have found lice on your child and treated him/her at home independently, the child must check in with the school nurse, or another health care provider, before returning to school. The school nurse will check for lice and viable nits within ½ inch of the scalp

How to keep lice from coming back:

Teach children to avoid playtime and other activities that are likely to spread lice.

1. Avoid head-to-head contact common during play at school and at home (sports activities, on a playground, slumber parties, at camp).
2. Do not share clothing, such as hats, scarves, coats, sports uniforms, or hair ribbons.
3. Do not share infested combs, brushes, or towels.

4. Do not lie on beds, couches, pillows, carpets, or stuffed animals that have recently been in contact with an infested person.

Outbreaks are possible whenever and wherever children gather. Screen your child regularly. Please contact the nurse if you need assistance. (We welcome the opportunity to teach those of you who do not know how to check your child for head lice.) Working together helps us protect all of the children, including your own. Thank you for your cooperation.

Sincerely,

School Nurse

Links that may be of help when you are dealing with head lice infestation:

<http://www.cdc.gov/lice/head/>

http://www.portal.state.pa.us/portal/server.pt/community/department_of_health_home/17457

<http://children.webmd.com/tc/lice-topic-overview>

<http://www.hsph.harvard.edu/headlice.html#Management>

