

Pediculosis (Head Lice)

Head Lice. Head lice are tiny insects (about 1/10 to 1/8 of an inch long) that live in human hair and feed on human blood. They multiply rapidly, laying little silvery-colored oval-shaped eggs (called nits) which they glue to the base of the hair, close to the scalp. Although it is hard to see head lice, a person can see nits if they look closely. Nits are most often found in the hair behind the ears and at the back of the head and neck. Nits should not be confused with dandruff. Dandruff can easily be flicked off the hair; nits cannot because they are firmly attached to individual hairs. One telltale sign of head lice is a persistent itching of the scalp, which is caused by the bite of the louse, and that is sometimes accompanied by infected scratch marks or what appears to be a rash. A secondary bacterial infection can occur, causing oozing or crusting. Swollen neck glands may also develop.

Anyone can get lice. They are not a sign of being dirty and should not be considered a sign of an unclean house. Head lice are easily spread from person to person by direct contact and are often found in school settings. Head lice do not spread any disease.

Transmission

Head lice have no wings and do not fly or jump; they crawl very rapidly. They are transmitted through direct contact with an infested person or with shared items, such as towels, brushes, pillowcases, hats, headphones, other headgear and clothing. Shared lockers and wall hooks may permit the spread of head lice. Head lice need human blood to survive. They usually do not survive for more than 2 days away from the human body. The nits (eggs) cannot hatch at the lower temperatures found away from the scalp.

The life cycle is composed of three stages; eggs, nymphs, and adults. The most suitable temperature for the life cycle is 89.6 degrees. Eggs of head lice do not hatch at temperature less than 71.6 degrees Fahrenheit. Under optimal conditions, the eggs of lice hatch in 7 to 10 days. The nymphal stages last about 7 to 13 days depending on temperatures.

School Exclusion Guidelines

Communicable: Transmission is possible as long as lice or eggs remain alive on the infected person or on articles. The eggs can live 7 to 10 days away from a host (person). The actual louse will only survive 24-48 hours without a host

Exclusion: Exclude from school only until treated.

Contacts: Close contacts should be checked to determine if they are infested. School exclusion is not indicated in the absence of infestation.

Diagnosis

Diagnosis is usually made by detecting nits, which appear as tiny, pearly-gray, oval-shaped specks attached to the hair shaft near the scalp. Use a magnifying glass and natural light when searching for nits near the scalp.

Treatment

Treatment consists of getting rid of the lice from infested individuals, their surroundings, and their personal items. All household members and individuals with close physical contact should be examined for lice and if infested, treated with one of the recommended shampoos or hair rinses. (Note: Some health care providers may routinely recommend simultaneous treatment of the members of the household.)

For individuals who have head lice:

1. Treatment should be given only to people who have active lice or viable eggs present.
2. The recommended treatment is a medicated shampoo that contains either pyrethrin (such as RID) or permethrin (such as Nix). These products are available without a prescription, should be used as instructed on the package, and may kill the lice but not their eggs.
3. After shampooing, the remaining eggs should be removed with a special nit comb or fine-tooth metal comb. Nit removal daily for 2 weeks is the most important thing that can be done to eliminate infestation and re-infestation.
4. Prescription shampoos (such as Kwell or Lindane) may be used in certain instances when other treatments have failed but should be used only with extreme caution, carefully following the label.
5. None of these treatments are 100% effective, so re-treatment may be necessary after an interval of 7 to 10 days to kill the eggs that may have survived the first treatment.
6. The hair should be carefully checked and nits removed every day for 2 weeks to be sure the infestation has been cured. Nits can be loosened from the hair shaft by using a vinegar and water solution or some OTC methods. The nits will then need to be combed with a fine tooth metal comb daily for 2 weeks. Manual removal of nits is the most important procedure to follow.

To keep the lice from coming back or spreading to others in the household:

1. To prevent re-infestation, the hair of everyone in the household should be checked when anyone is found to have head lice.
2. Everyone with head lice in the same household should be treated on the same day.

3. Towels used to dry the hair after treatment with the lice shampoo should be washed immediately.
4. Clothing, bedding, and soft toys should be specially cleaned, such as by using hot water, hot dryers (for at least 20 minutes), or by dry cleaning. Items that cannot be washed should be sealed in a plastic bag for 2 weeks.
5. Floors, furniture, car seats, upholstery, and carpeting should be vacuumed. Insecticide sprays are not recommended.
6. Combs and brushes should be disinfected, then washed in hot water daily. Disinfecting is done by soaking them in lice shampoo for 4 minutes, soaking them in a 2% Lysol solution for 1 hour, or boiling them in water for 10 minutes.
7. Hair inspection and manual removal of the nits is very important in preventing re-infestation. Nits found close to the scalp after treatment should be removed. Nits that have hatched or died, as well as empty egg casings, play no role in the spread of head lice. Nits that are seen more than $\frac{1}{4}$ of an inch from the scalp are probably from an old infestation.
8. Children need to be told not to share headgear, coats, combs, and other articles at school.
9. Parents should routinely check their children's hair.

Notification Guidelines

When pediculosis occurs within the school population, school health personnel and the building Principal should determine whether some or all parents should be notified.

Prevention Guidelines

1. Learn to recognize nits, and regularly check students' heads and hair when there is a case of head lice diagnosed in the classroom. Teach parents to recognize nits and check hair periodically. If parents are not removing nits on a daily basis, school health personnel should be checking hair on a daily basis, if diagnosed, and remove the nits as needed. This will prevent a widespread problem and decrease school absentees.
2. If a case is identified, follow recommended treatment procedures closely. Proof of treatment must be brought in with the student and the student's hair checked upon re-entry to the classroom. If a parent finds nits, it should be reported to the school nurse or health personnel.
3. Remind students not to share personal items, such as combs, hair accessories, hats, headphones, helmets, towels, clothing, and so forth.