

Ten Common Questions Asked About Head Lice

Adapted from the 2016 Position Statement of the Canadian Paediatric Society (CPS) and the 2015 Position Statement of the American Academy of Pediatrics (AAP)

1. HOW ARE HEAD LICE IDENTIFIED?

The most common symptom of head lice is itching. This is caused by sensitization to lice saliva; a louse feeds by injecting tiny bits of saliva and taking tiny amounts of blood from a human scalp. With a first exposure to head lice, presence of just a few lice, or people who are less sensitive to lice saliva, there may be no complaints at all.

To make the diagnosis of head lice, you need to examine the hair and scalp very carefully to find a live louse. Adult lice are usually grey and about the size of a sesame seed (2-4mm). They can be very tricky to spot because they can move very quickly and hide in the hair, but are most often seen along the hairline behind the ears and at the back of the neck.

It is usually easier to find the casings for the eggs laid by the lice. These are called "nits" and are even smaller than the lice, oval in shape, and they vary in colour. Lice lay their eggs within 3-4 mm of the scalp so the eggs will stay warm and there will be food for the baby louse ("nymph") when it is hatched about a week later. Lice attach the nits (containing the eggs) to the hair with a strong glue-like substance which means the empty nits stay stuck to the hair even after the eggs have hatched or been killed with chemicals. As the hair grows, it carries the empty nits further away from the scalp. These empty shells cannot spread lice to the same child or others. The AAP says that, "nits found more than 1 cm from the scalp are unlikely to be viable" (Devore & Schutze, 2015).

An important difference between nits and other things found in hair (such as dandruff, scabs, dirt, hairspray droplets, etc.) is that nits cannot be flicked off the hair easily, nor can they be slid up and down the hair shaft.

2. HOW ARE HEAD LICE TRANSMITTED?

Head lice can only crawl. They cannot hop, jump, or fly. They only survive on humans. Head lice are transmitted primarily by direct head-to-head contact. They are most common in children between the ages of 3 and 12. Hair length and frequency of hair brushing or shampooing do not seem to make a significant difference.

Head lice rarely survive more than a day away from the scalp. Also, their eggs cannot hatch if they are not at the right temperature and the baby louse cannot survive without food nearby. As a result, indirect transmission of head lice by contact with personal belongings is much less likely to happen. It is still recommended that parents/guardians discourage their children from sharing brushes, combs, and hats.

3. WHAT TREATMENT IS RECOMMENDED?

Well-established treatment options for a proven head lice infestation include topical insecticides and oral agents. Non-insecticidal products that have been approved by Health Canada since the last CPS statement was published in 2008, can all be obtained over the counter. (<http://www.cps.ca/documents/position/head-lice>)

In Canada, a number of different pediculicides are available over the counter and by prescription. They are all potentially harmful if used improperly; so it is very important to read the instructions carefully, discuss their use with a pharmacist, nurse practitioner or physician, and use only as directed. They should never be applied to broken skin, and should be stored out of reach of children.

It is important to note that experts are now recommending that the pediculicide shampoo treatment should be repeated in 7-10 days because some newly laid eggs may have survived the first round. By treating again 7-10 days later, any surviving eggs will have hatched but not have had time to lay any more eggs; the repeat treatment will kill these new lice.

4. WHAT DO WE DO AFTER WE USE THE RECOMMENDED TREATMENT?

Both the CPS and AAP are very clear that it is not necessary to remove nits after appropriate treatment with a pediculicide shampoo in order to prevent spread. Most of these nits will contain eggs that have been poisoned by the pediculicide. The few nits that may contain surviving eggs will hatch over the next week and the few new lice will be killed in the repeat application of the pediculicide shampoo, as described above.

You may wish to pick the nits out after using the shampoo in order to decrease "diagnostic confusion" (where dead nits might be mistaken for active infestation) or for cosmetic reasons. The AAP notes that some experts recommend removal of nits within 1 cm of the scalp to decrease that small risk of a few nits surviving to hatch. Remember that solving this problem is also the purpose of the second treatment 7-10 days after the first.

If live lice are found within 24 to 48 hours, the CPS recommends immediate re-treatment with a different pediculicide shampoo, and then repeat treatment with this second shampoo 7-10 days later. In this unusual circumstance, discussion with a pharmacist, nurse practitioner or physician is prudent.

5. WHO ELSE NEEDS TO BE TREATED?

It is important to carefully check the hair and scalp of everyone who may have had direct contact with a child who has live lice. These other people do not need treatment unless live lice are found. The exception to this rule is anyone who shares a bed with the child who has lice. Both the CPS and AAP recommend that bedmates should be treated on the assumption that they have lice, too.

6. WHAT ABOUT OBJECTS THAT MY CHILD'S HEAD MIGHT HAVE TOUCHED?

There is little evidence to suggest that sharing hats, brushes, and other personal articles can spread head lice. However, heat will kill any stray lice and families may wish to wash personal articles in hot water for at least 10 minutes. Drying items at high temperatures, or storing them in plastic for 10-14 days, will also kill lice.

7. DO WE NEED TO FUMIGATE OR SPRAY?

Spraying (fumigation) is not recommended. If families are concerned about carpets, furniture, or car seats, vacuuming should be sufficient.

8. HOW SHOULD A CASE OF HEAD LICE IN A STUDENT BE HANDLED?

The emphasis should be on confidentiality, not embarrassing the child or family involved, and ensuring appropriate treatment is undertaken. A child found to have active head lice has likely had them for some time. There is no need for the child to be removed from the class on the day of diagnosis, although close direct head contact with others should be quietly discouraged.

The CPS provides the following information for case management of a child with head lice:

- Head lice infestations are common in school children but are not associated with disease spread or poor hygiene.
- Head lice infestations can be asymptomatic for weeks.
- Misdiagnosis of head lice infestations is common. Diagnosis requires detection of live head lice. Detecting nits alone does not indicate active infestation.
- Environmental cleaning or disinfection following the detection of a head lice case is not warranted. Head lice or nits do not survive long away from the scalp.
- Treatment with an approved, properly applied, topical head lice insecticide (two applications 7-10 days apart) is recommended when a case of active infestation is detected.
- When there is evidence of a treatment failure (detection of live lice), using a full course of topical treatment from a different class of medication is recommended.
- The scalp may be itchy after applying a topical insecticide but itching does not indicate treatment resistance or a re-infestation.
- Topical insecticides can be toxic. Take care to avoid unnecessary exposure and, when indicated, minimize skin contact beyond the scalp.

Both the CPS and AAP agree that the evidence does not support the use of "no-nit policies" for return to school or day-care. They recommend that children can return to school once treated with an effective pediculicide.

9. WHAT ABOUT ROUTINE SCREENING OF STUDENTS AT SCHOOL?

The AAP found that these programs have not been shown to have a significant effect on the incidence of head lice in schools, and should be discouraged.

10. HOW CAN WE PREVENT THE SPREAD OF HEAD LICE?

The AAP responds:

"It is unlikely that all head lice infestations can be prevented, because young children come into head-to-head contact with each other frequently. It is prudent for children to be taught not to share personal items, such as combs, brushes and hats, but one should not refuse to wear protective head gear because of fear of head lice. In environments where children are together, infested children should be treated promptly to minimize the spread to others. Regular surveillance by parents is one way to detect and treat early infestations, thereby preventing the spread to others."

To deal with the problem of head lice, responsibility needs to be shared by parents/guardians, school and community health professionals.

Parents/guardians should learn how to recognize head lice and routinely check their children. When a child has head lice the parent/guardian should notify the school. Parents/guardians may wish to provide education and support to other parents/guardians in their local community.

Schools should have basic knowledge about prevention and treatment of head lice. Notification of, or reminders to, parents/guardians regarding head lice is a school responsibility.

When there are repeated incidents of head lice, the principal may consult with the SMDHU through Health Connection for written information about head lice and situational management advice.

REFERENCES:

Devore CD, Schutze GE; AAP, Council on School Health, Committee on Infectious Dises. Head Lice. *Pediatrics*. 2015; 135(5): e1355-e1365 – October 01, 2015