



## Head Lice in Schools

Shaku Nair, Shujuan Li, Dawn H. Gouge,

**Identification:** Head lice (*Pediculus humanus capitis*) are small parasitic, wingless insects usually found on the scalp or in hair on the head of humans (Fig. 1). Adult head lice are about  $\frac{1}{8}$  inch in length, with a flattened body resembling a sesame seed. They can vary in color and take on a reddish tinge after feeding. Nymphs are smaller and cream colored, with a red spot in the center of their bodies after feeding. Nits (eggs) are glued on to the hair by the female and can remain attached for considerable periods after hatching, unless physically removed. Both adults and nymphs have stout legs with grasping claws at the tips. Head lice feed exclusively on human blood. They are spread primarily through head-to-to-head contact because they cannot fly or jump.

**Who can get head lice?** Head lice can infest people of all ages, but children are more prone to infestations due to their play activity and close physical contact (Fig. 2). Girls are more likely than boys to acquire and sustain head lice because of behaviors such as hugging, and also because they usually have more hair (Fig. 3).

**When do head lice occur?** Head lice problems occur year-round. However, they are most commonly noticed and reported during the start of the school year.

**Problems due to head lice:** Head lice bites can lead to severe itching and infected sores on the scalp. Infestations can result in sleeplessness, extreme anxiety, embarrassment, unnecessary days lost from school for children (and work for parents), and pesticide exposure. However, head lice are not a sign of uncleanliness and do not vector disease causing organisms.

### Managing head lice: IPM is best!

- An IPM (Integrated Pest Management) strategy is the best way to manage head lice in schools and homes. Schools should have an action plan in place, which includes adequate training of staff for correct identification and diagnosis, protocols for communication to students and their parents/guardians, record-keeping, and treatment as necessary.
- School personnel who work closely with students (school nurses, teachers, counselors) should be trained to identify all life stages of head lice correctly, and to distinguish between an active infestation and non-viable nits from a prior infestation.

### “No nit” policies are not helpful, unnecessary and costly.

“No nit” policies contribute greatly to the social stigma of lice infestations and have no impact on preventing additional infestations in the community. Such policies are ineffective because:

- Nits do not transfer between heads.
- The over-reaction to nits leads to unproductive use of time by school staff and parents, school days missed by students, and workdays missed by parents and guardians.
- Nits more than  $\frac{1}{2}$  inch from the scalp are not viable. They are likely dead, empty shells or unlikely to hatch (Fig. 4).
- The misdiagnosis of nits is common during nit checks and may lead to unnecessary use of pediculicides and inappropriate exclusion from school.

Figure 1. Different life stages of head lice: Adults, nymphs and eggs.



Shujuan Li

Figure 2. Children engage in close physical activity, and this makes them more prone to head lice infestations.



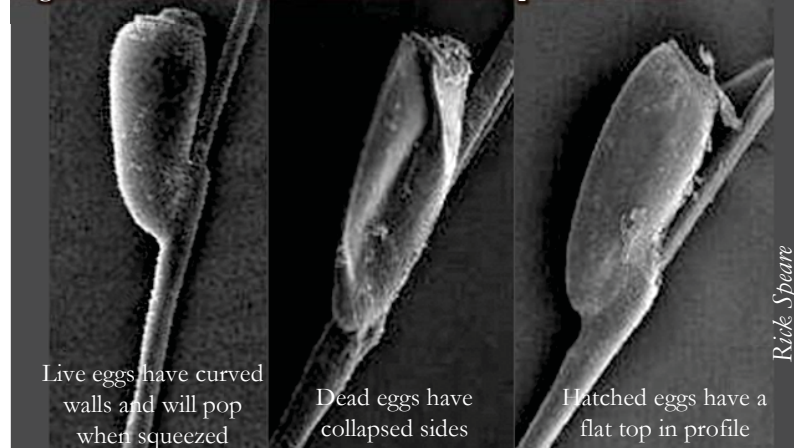
Connie Herzog

Figure 3. Girls are more likely than boys to acquire head lice.



Natasha Stannard

Figure 4. Nits more than  $\frac{1}{2}$  inch from the scalp are not viable.



Live eggs have curved walls and will pop when squeezed

Dead eggs have collapsed sides

Hatched eggs have a flat top in profile

Rick Speare

## Preventing the spread of head lice in schools

Head lice are mostly spread through direct head-to-head contact. Therefore, management should focus on

- A) Reducing chances for head-to-head contact, and
- B) Facilitating the eradication of live lice on the head of infested individuals.

Indirect spread through contact with personal belongings (head gear, combs, brushes, hats) is possible, but far less likely. Spread through contact with furniture, rugs or other surfaces previously occupied by an infested person is least likely.

## Reducing chances for head-to-head contact in the school environment:

- Educate children about head lice and how they are spread.
- Have children maintain space when standing or walking in lines. In classrooms, desks and chairs should be adequately spaced so that children are not sitting shoulder-to-shoulder (Fig. 5).
- Have children store belongings separately. Individual cubbies or lockers are ideal (Fig. 6). Do not hang or pile belongings together (Fig. 7).
- During head lice incidents, minimize use of shared head accessories (e.g. earphones, headphones, helmets, etc.) and clothing (e.g., hats, caps, sunglasses, or costumes in drama classes, etc.).

## Eradicating live lice on the head of infested individuals:

If live adult head lice or nymphs are found on the head of a child, the matter should be communicated to the parents or guardians (a sample letter can be seen at

<https://cals.arizona.edu/apmc/docs/Head-lice-parent-letter.docx>).

A systematic treatment plan should be adopted at the child's home, with necessary follow up to get rid of live lice. Refer to our publication for detailed, step-by-step instructions for treatment of head lice and different available treatment options

(<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1687-2015.pdf>).

Providing information to families on the diagnosis, treatment, and prevention of head lice is a helpful and useful plan. School nurses and teachers should be trained to do so (Fig. 8).

Maintain records of head lice occurrences, including location in the

### Three important things to remember regarding head lice in schools:

- 1) In any school classroom 1% head lice incidence is normal.
- 2) If classrooms report >20% infestation levels, it is likely to be a misdiagnosed head lice infestation.
- 3) No pesticide treatment of a classroom, school bus or home is ever necessary or beneficial.

#### Sources, further information:

Arizona Department of Health Services. 2017. Head lice management in the school environment. [https://www.azdhs.gov/documents/licensing/childcare-facilities/parents/head\\_lice\\_management.pdf](https://www.azdhs.gov/documents/licensing/childcare-facilities/parents/head_lice_management.pdf)

CDC. 2015. Head lice information for schools. <https://www.cdc.gov/parasites/lice/head/schools.html>

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Figure 5. Classroom seating should be adequately spaced to reduce chances for head-to-head contact.



Figure 6. Individual, well-separated cubbies are ideal for storing children's belongings and preventing spread of head lice.



Figure 7. Avoid hanging or piling back packs and other belongings together.



Figure 8. School nurses or teachers are critical in managing head lice infestations at school.



Access this document online at : <https://cals.arizona.edu/apmc/docs/Headlice-IPMSHORT.pdf>

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