

# Head Lice 101

## An Overview for School Nurses

### Lice Lessons



Head lice (*Pediculus humanus capitis*) are a common community problem. An estimated 6 to 12 million lice infestations occur each year in the United States, most commonly among children ages 3 to 11 years old. Live lice feed on human blood and live close to the human scalp. They are not dangerous and do not transmit disease, but they do spread through direct head-to-head contact.<sup>1</sup>

### Signs and symptoms of infestation

Signs and symptoms of infestation include<sup>1</sup>:

- Tickling feeling on the scalp or in the hair
- Itching (caused by the bites of the louse)
- Irritability and difficulty sleeping (lice are more active in the dark)
- Sores on the head (caused by scratching, which can sometimes become infected)

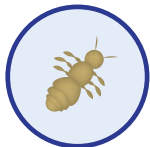
When checking a student for head lice, you may see several forms: the nit, the nymph, and the adult louse.

### Fast Facts

- An estimated 6 to 12 million infestations occur each year among US children 3 to 11 years of age<sup>1</sup>
- Head lice are usually not spread in the school setting, but rather through head-to-head contact elsewhere in the community, such as at sleepovers or camp<sup>2</sup>
- Head lice move by crawling; they cannot jump or fly
- Head lice do not transmit disease<sup>1</sup>



**Nits** are defined as both the eggs that female lice lay on hair shafts, and the shells that are left behind once the eggs hatch in 8 or 9 days. Nits are tiny and teardrop-shaped, and are often yellowish or white. When they first appear, they can be mistaken for dandruff, but they cannot be easily removed or brushed off because they are attached to the hair shaft.<sup>1</sup>



**Nymphs**, or baby lice, are small and grow to adult size in 1 to 2 weeks.<sup>1</sup>



**Adult lice** are the size of a sesame seed and appear tan to grayish-white. They can live as long as 30 days on a human host, but only about 2 days if removed from a person.<sup>1</sup>

Finding a live nymph or adult louse on the scalp or in the hair—most commonly behind the ears and near the neckline at the back of the head—is an indication of an active infestation.<sup>3</sup>

### Risk factors and transmission

Head lice often infest people with good hygiene and grooming habits.<sup>4,5</sup> While head lice are often detected in the school setting by teachers and school nurses, they are most often acquired through direct head-to-head contact elsewhere in the community, such as sleepovers or camp.<sup>2</sup>

Head lice are wingless insects that cannot jump or fly. They move by crawling, and are most often spread by direct head-to-head contact. It is also possible, but uncommon, to spread head lice by contact with clothing (such as hats, scarves, or coats) or other personal items (such as combs, brushes, or towels). Head lice also don't easily spread to pillows, furniture, or stuffed animals, but can remain on them for 1 to 2 days. Head lice do not infest pets and pets do not spread head lice.<sup>1</sup>

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### Treatment

If you suspect a child has head lice, it's important to encourage the parents/guardians to consult with a pediatrician or family physician for proper care as soon as possible. Treatment failure may be caused by lack of response to a treatment, incorrect product usage, misdiagnosis of the original condition, or reinfestation.<sup>6,7</sup> To help avoid these pitfalls, the physician can confirm the diagnosis, discuss treatment options, provide an appropriate recommendation, and advise parents/guardians on how to properly use the medication.

#### Key treatment considerations:

- A common approach to head lice treatment is to use an over-the-counter (OTC) medication. While these treatments have been effective in the past, resistance to some OTC head lice treatments has been reported in recent years. A 2016 study showed that 48 states now have lice that may be genetically predisposed to resistance to commonly used treatments<sup>6</sup>
- There are new prescription treatment options available that are safe and do not require nit combing. Parents/guardians may want to remove nits for aesthetic reasons
- There is no scientific evidence that home remedies are effective treatments<sup>7</sup>
- Parents/guardians should closely follow treatment instructions. Using extra amounts or multiple applications of the same medication is not recommended, unless directed by a healthcare professional<sup>8</sup>
- Family bed linens and recently used clothes, hats, and towels should be washed in very hot water and dried on the high setting<sup>8</sup>
- Personal articles such as combs, brushes, and hair clips should be soaked in very hot water (at least 130° F) for 5 to 10 minutes<sup>8</sup>
- All household members and other close contacts should be checked, and anyone with evidence of an active infestation should be treated. All persons with active head lice should be treated at the same time<sup>8</sup>

### Communicating with families

Head lice infestations can have a considerable psychological impact on children and parents, who may feel stigmatized and ostracized.<sup>2,9</sup> School nurses can help by establishing supportive relationships, maintaining privacy and confidentiality, and providing ongoing support and reassurance.<sup>10-12</sup>

Head lice education and resources are essential to helping correct misinformation and misperceptions. School nurses can help educate the community about head lice and treatment options, including OTC and prescription products, through letters to parents at the beginning of the school year or during a lice outbreak, handouts in the nurse's office, and presentations during parent-teacher nights.

School nurses can also help prevent stigmatization in the community by spreading the word that head lice infest children from all backgrounds and walks of life. Anyone can get head lice, no matter how clean their home or hair is, or where they live or go to school or play.<sup>1</sup>

### References

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Lice Lessons educational initiative is made possible through a collaboration with Arbor Pharmaceuticals, LLC.

PP-NP-US-0256

  
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