

Lice (Pediculosis Capitis)

What are head lice?

- Small, tan-colored insects (less than 1/8" long) that
 - Live on blood they draw from the scalp.
 - Live for days to weeks depending on temperature and humidity.
 - Crawl. They do not hop or fly.
 - Deposit tiny, gray/white eggs, known as nits, on a hair shaft 3 to 4 mm (1/4") from the scalp. The eggs need the warmth from the scalp for hatching.
 - Cannot live for more than 48 hours away from the scalp as adult insects.
- Having an infestation with lice may cause irritation and scratching, which can lead to secondary skin infection.
- Families and teachers/caregivers often get very upset about lice. However, head lice do not carry disease. Head lice infestations occur in all socioeconomic groups and do not represent poor hygiene.
- Often, normal activities are disrupted because people become upset about these insect pests.

What are the signs or symptoms?

- Itching of skin where lice feed on the scalp or neck or complaints about itchiness by older children.
- Nits attached to hair, most easily seen behind ears and at or near the nape of the neck.
- Scratching behind ears and the nape of the neck.
- Open sores and crusting from secondary bacterial infection may cause swollen lymph nodes (glands).

What are the incubation and contagious periods?

- Incubation period: 7 to 12 days from laying to hatching of eggs. Lice can reproduce about 2 weeks after hatching.
- Contagious period: Until live lice are no longer present.

How are they spread?

- Primarily through direct head-to-head contact with infested hair. Shared objects (hats, headgear, and other objects) that contact the head are a possible but uncommon cause of spread of lice because the insects prefer to stay close to the blood supply on the scalp. Therefore, avoid sharing clothing and headgear or wash them between users.
- Nits hatch best when they are kept warm by being on strands of hair that are within 3 to 4 mm (1/4") of the scalp, on the bottom part of the hair strands that are growing out of the scalp, or with a hairstyle that puts



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Child with nits on hair behind ears and at nape of neck

hair within 3 to 4 mm (1/4") of the scalp. Research shows eggs can be laid on other surfaces and hatch more than 50% of the time.

How do you control them?

- By using medications (pediculicides) that kill lice and nits. Resistance of lice and nits to these chemicals has been reported, but the extent of resistance to the chemicals varies. Some chemicals may require 2 treatments. These chemicals are toxic to lice and may have some toxicity to humans, especially if used for age groups for which the product is not recommended or without following the manufacturer's instructions. If a particular chemical fails to work, repeated use of that chemical is unlikely to be successful, and an alternative chemical that has been shown to be effective should be tried.
- Herbal and "natural" remedies, like ylang-ylang, tea tree, and lavender oils, have not been scientifically studied. They are not regulated by the US Food and Drug Administration, so the content, safety, and effectiveness cannot be assumed.
- Remedies using common household products (eg, salad oils, mayonnaise, petroleum jelly) have not been shown to be effective, and some (eg, kerosene) are dangerous.
- Some non-insecticide-based occlusive agents (dimethicone and isopropyl myristate) have shown promise.
- Mechanical removal of the lice and nits by combing them out of wet hair with a special fine-tooth comb may have some benefit compared with no treatment. This treatment is tedious and very time-consuming, but it

➤ *continued*

does damage and remove live lice. It is unknown whether combing improves treatment success rates if the child is already receiving a chemical treatment at the same time.

- Household and close contacts should be examined and treated if they have infestations. Individuals who share the same bed with the infested child may also be treated, even if no live lice are found.
- The following supplemental measures are options, not requirements, because spread is primarily from head to head:
 - Launder articles that were in contact with the infested individual, exposing them for 5 minutes to temperatures greater than 128.3°F (53.5°C) and then drying them in a dryer on the hot setting. Alternately, clothing and bedding can be dry-cleaned.
 - Toys, personal articles, bedding, other fabrics, and upholstered furniture that cannot be laundered with hot water and dried in a dryer or dry-cleaned can be kept away from people (eg, in a plastic bag) for 1 to 2 weeks if there is concern about lice having crawled from an infested child onto these articles.
 - Floors, carpets, mattresses, and furniture can be vacuumed (a safe alternative to spraying). Because head lice can only live for 1 to 2 days away from the scalp, chemical treatment of the environment is not necessary.
- Discouraging activity that causes head-to-head contact.

What are the roles of the teacher/caregiver and the family?

- Report the infestation to the staff member designated by the child care program or school for decision-making and action related to care of ill children. That person, in turn, alerts possibly exposed family and staff members to watch for symptoms.
- Have parents/guardians consult with a health professional for a treatment plan.
- Check children observed scratching their heads for lice; if lice are found, check all contacts.
- Educate teachers/caregivers and families on how to recognize lice and nits.

Exclude from group setting?

- At the end of the day, the child should see a health care provider and, if lice is confirmed, the child should start treatment before returning. Families should be notified to ask their child's health care provider for advice about which treatment to use. If treatment is started before the

next day, no exclusion is necessary. However, the child may be excluded until treatment has started.

- Some treatments must be repeated 7 to 10 days after the first treatment. Until the treatment course is completed, avoid any activity that involves the child in head-to-head contact with other children, such as group block building, art projects, games that involve head-to-head contact, or sharing of headgear in a dress-up corner, while using riding toys, or playing sports. Do not resume these activities until no new lice are seen and there are no nits within ¼" of the scalp for anyone in the group.

Readmit to group setting?

Yes, when the child has received the treatment recommended by the child's health care provider.

Comments

- Removal of lice and nits from the hair is very difficult. It may be more successful if the hair is wet with water and combed in small sections with a very fine-tooth comb, such as those supplied with some lice treatment products. Doing the combing may reduce diagnostic confusion about whether the child has been successfully treated or has experienced reinfestation.
- The Centers for Disease Control and Prevention (CDC) recommends *not* using shampoo for several days after the treatment is applied to give the residual lice-killing product on the hair a chance to work on any live lice or viable nits. Also, the CDC suggests *not* using conditioner, oil, or any other occlusive product before applying the lice-killing product because these act as a barrier and may make the lice-killing medicine ineffective.
- No-nit policies that require children to be nit free are not recommended because they have not been shown to be effective in controlling outbreaks, may keep the child out of the program needlessly, and unduly burden the child's parents/guardians, who must implement this measure.
- Education of families and teachers/caregivers about the relatively benign consequences of head lice infestations should be attempted to reduce the level of disruption for the infested child and all others involved in the program. It may be necessary to arrange for a health professional to provide this education to overcome the widespread beliefs about this problem.
- Itching results from an allergic reaction to the lice saliva and, sometimes, from the treatment itself; itching often persists for weeks after the infestation has resolved.

