

MANAGEMENT OF HEAD LICE

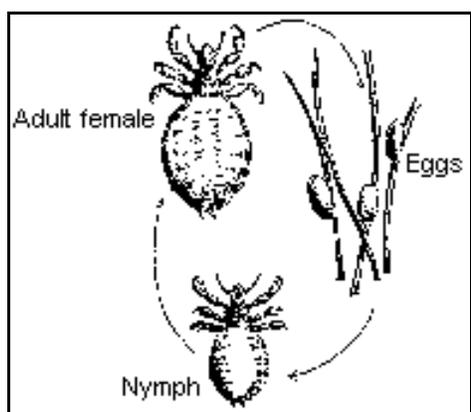
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Most people associate winter with the end of their insect problems. In the case of head lice, nothing could be farther from the truth. It is incorrect to associate head lice with the stigma of poverty and poor personal hygiene. In fact, it's estimated that ten percent of elementary school children are treated for head lice each year.

Diagnosing the Problem

Head lice are bloodsucking insects that live exclusively on humans. They usually infest only the head, preferring the nape of the neck and the area behind the ears. Head lice are especially common on schoolchildren between the ages of three and ten. Schools bring large numbers of children together in close, personal contact. Hats and coats are often shared or hung together in the same closet, permitting transfer of lice from one child to another. Transfer of head lice can also occur by using infested combs and brushes, or resting one's head on upholstered furniture or pillows recently used by an infested person.

The first indication of head lice is **itching and scratching** caused by the bloodsucking habits of the louse. Examination of the hair and scalp will usually reveal the white or grayish crawling forms (about the size of a sesame seed) and yellowish white eggs (nits) attached to the hair shafts close to the scalp. The nits are sometimes



HEAD LICE LIFE STAGES

mistaken for dandruff or residues of shampoo but will not wash off or be flicked off with a finger. Usually all life stages can be seen with the naked eye, although a flashlight and hand lens are helpful. Red bite marks or scratch marks are often seen on the scalp or neck.

People should be aware that there are many other factors

(or other lice) that may cause itching and irritation during the winter. Dry air alone can cause irritation, producing a condition known as "winter itch". As skin loses moisture, itching results. A skin moisturizer or home humidifier is often helpful in these situations. See ENT-58 *Invisible Itches: Insect and Non-Insect Causes* (To view this publication requires the free Adobe Acrobat Reader plug-in which can be downloaded from the Adobe site.).

Elimination and Prevention

There are four key steps to eliminating head lice and preventing their return:

1. The child or infected person(s) should be treated with a pediculicide shampoo formulated specifically to control lice. Several different products, most containing permethrin or pyrethrins, are available through pharmacists and physicians. Follow the directions on the package. Some products require retreatment in 7 to 10 days. If one family member is found to be infested, all others should be examined. Only those showing evidence of lice should be treated. All infested family members should be treated within a 24-hour time span to prevent reinfestation from one person to another. More than half of lice-infested children have another infested family member at home.
2. Remove all nits using a fine-tooth louse comb. Although this step can be quite time-consuming, nit removal is critical to eradication. Louse control shampoos often do not kill all the nits, and surviving eggs will hatch within 7 to 10 days, continuing the cycle of reinfestation. Dead nits also tend to remain attached to the hair, causing uncertainty about reinfestation. Nits are most easily removed by combing while the hair is slightly damp. Adding conditioner, olive oil, or a 50:50 vinegar-water solution may also make combing easier. Nits can also be picked out with fingernails or cut out with small safety scissors.
3. All personal articles that have been in contact with the patient's head should be deloused. Normal laundering with hot, soapy water (125 degrees F for

10 minutes), or dry cleaning will kill lice and nits on clothing, bed linens and towels. Combs and brushes should be soaked for 10 minutes in a pan of very hot water. (Note: steps 1-3 should be performed at the same time in order to avoid reinfestation after shampooing). As an added precaution, car seats, furniture, and carpeting contacted by infested individuals should be vacuumed with the vacuum bag being discarded.

4. To reduce the chance of reinfestation, children should be instructed not to share hats, clothing or brushes with their classmates. Each child should have a separate storage space for their hats and other clothing at home and school to prevent contact with other garments. If this is not possible, coats should be hung on hooks so they do not touch, or on the backs of students' chairs. Treatment of the premises or clothing with insecticides is generally not required or recommended for the control and prevention of head lice. This is because the lice cannot survive for any extended length of time off of their human host.

Elimination of a head lice outbreak in a school, nursing home or similar shared facility requires prompt,

coordinated action and administrative support to prevent the spread of lice to uninfected individuals. Unless **all** affected persons are treated, the condition will continue.

Managing Persistent Head Lice Infestations

Despite all the above efforts, there are times when a head lice infestation seems to persist indefinitely. Persistent infestation may be due to various causes, one of the most likely being improper use of the pediculicide (e.g. insufficient time shampoo left on the hair, or failure to reapply after 7 to 10 days). Other times, not enough time was spent combing out the nits or no effort was made to concurrently treat other infested family members.

In rare, but increasing instances, the product in use may have lost its effectiveness. Head lice resistance to pediculicides has been documented recently in certain areas of the world, especially to permethrin. Resistance to pyrethrin/piperonyl butoxide formulations appears to be less common. If resistance is suspected to the pediculicide you have been using, consult with your physician.