

(revision date:9/3/2015)

## *Head lice*

*Use Integrated Pest Management (IPM) for successful pest management.*

### ***Biology***

The human head louse is a common pest, frequently found where large numbers of people are in close daily contact. It can be a significant pest in schools, particularly among preschool and elementary-age children. Head lice are typically spread by direct physical contact (head-to-head), or by direct contact with items such as hats, combs or brushes, towels, etc. which have been in close contact with the head and hair of an infested person. The first symptom of an infestation is often an itchy scalp. A rash, sores, or skin infection may develop from excessive scratching.

Head lice may be found as adult insects, nymphs or immature insects, or eggs (nits). They usually occur **ONLY** on the head and scalp, but may rarely be found on eyelashes or brows. The area above the ears, on the back of the head, and along the neckline are the most commonly affected parts of the scalp. Adult head lice range in color from translucent to dirty white to grayish-black. They are longer than they are broad, typically about 2-3mm long (around 1/16 to 1/8", about the size of a sesame seed), and are flattened in appearance. Adult lice can crawl quickly, but do not fly or jump. Nymphs are similar in appearance to adults, but may be somewhat smaller and lighter in color. Both adults and nymphs may be easily confused with flakes of dandruff. The small, oval eggs or nits are the easiest stage to locate since they are not mobile. Nits or eggs are cemented tightly to the hair shaft near the base of the hair. The empty egg case will remain attached to the hair after hatching, making it difficult to determine if the infestation has been eliminated. However, nits further than 1/4" from the scalp have usually either hatched or are dead. Use a lice comb or pick nits off with your fingernails. Keep in mind that nits are very difficult to remove but need to be removed to stop the infestation.

### ***Management Options***

#### **Non-Chemical Management**

- ~ Daily manual lice and nit removal is the **MOST EFFECTIVE** and important part of controlling a head lice infestation. The Washington State Department of Health recommends thorough twice-daily combing of wet hair with a lice comb for three weeks for effective control of head lice. Carefully follow all instructions given with the head lice comb for the best success. After each session clean combs, towels, hands, clothing, and other items used with hot water and soap.
- ~ Clothing, bedding, and other items that have been in contact with an infested person's head should be washed in hot water and dried in a dryer. This should be repeated every few days until the infestation is controlled.
- ~ Thoroughly vacuum carpets, furniture, car seats, etc. that have been in close contact with infested heads. Wash or vacuum student backpacks or book bags. Dispose of the used vacuum bag by sealing in a plastic bag and placing it in the garbage.
- ~ Items that cannot be washed (stuffed animals, pillows, etc.) may be sealed in plastic bags for three weeks to allow the nits to hatch and the lice die.
- ~ Space and bedding sprays are **NOT** recommended for lice control, as adult lice seldom survive longer than 1-2 days away from the human host. Space and bedding sprays also do not kill the nits on fallen hairs, which can simply be removed by vacuuming.
- ~ Do not share items that are in close contact with the head (headphones, hats, brushes, combs, towels, pillows, etc.). Encourage children to store personal items such as hats in coat pockets or sleeves or in backpacks to avoid contact with other people's belongings.
- ~ Be aware that places such as barber shops, hair salons, etc. are not allowed to work on anyone with visible parasites such as head lice.
- ~ Human head lice are not parasites of pets, nor are they spread by pets. No treatment is necessary for cats, dogs, or other household pets.

*Select non-chemical management options as your first choice!*

## Chemical Management

**IMPORTANT:** *Visit Home and Garden Fact Sheets for more information on using pesticides*

For chemical treatment of lice, read and follow all label instructions carefully and completely. Be aware that some lice have become resistant to chemical controls, so use chemicals as a last resort, and ALWAYS use them along with other control measures to prevent reinfestations. When using chemical-based shampoo treatment products, treat all infested individuals of a household at the same time. DO NOT treat uninfested members of the household, as it will not stop an infestation from occurring and is unnecessary.

ADULT LICE do not die immediately after treatment; it may take as long as 8 to 12 hours. NITS may not be affected by chemical treatments, so be sure to follow label instructions regarding follow-up treatments.

Chemicals used to treat humans for lice are regulated by the Food and Drug Administration (FDA) as drugs and are not pesticides registered by the Environmental Protection Agency (EPA).

**If you choose to use a pesticide, some examples of products that are legal in Washington are listed below. Some products are labeled for just INDOOR or just OUTDOOR use, or may allow both uses. Be sure to choose a product appropriate for your situation. Always read and follow all label directions.**

- ~ Equate Maximum Strength Lice Killing Shampoo
  - active ingredient: pyrethrum extract, piperonyl butoxide
  - EPA reg no: N/A
- ~ Nix Lice Treatment
  - active ingredient: permethrin
  - EPA reg no: N/A
- ~ RID Lice Killing Shampoo
  - active ingredient: pyrethrum extract, piperonyl butoxide
  - EPA reg no: N/A
- ~ Safeway Maximum Strength Lice Treatment Shampoo
  - active ingredient: pyrethrum extract, piperonyl butoxide
  - EPA reg no: N/A
- ~ RiteAid Pyrinyl Lice Shampoo
  - active ingredient: pyrethrum extract, piperonyl butoxide
  - EPA reg no: N/A
- ~ Walgreens Lice Treatment Crème Rinse
  - active ingredient: permethrin
  - EPA reg no: N/A
- ~ This list may not include all products registered for this use.

*Head lice*

*Images*



~ Caption: Head louse  
~ Photo by: J. Glass