

## September is National Head Lice Prevention Month



### Key Inforbits



- What are Head Lice?
- Head lice symptoms
- Who is at Risk?
- Diagnosing Head Lice
- Hair Raising Facts
- Treatment Options
- Prevention & Control



### What are Head Lice?

Head lice, head louse, or *Pediculus humanus capitis* are parasitic insects that may be found on the head, eyelashes, and eyebrows. These insects feed on the blood of humans throughout the day while residing close to the human scalp.<sup>1-3</sup> The lifespan of head lice is approximately 50 days, and they go through 3 stages in their life. The first stage is the “Egg Stage” whereby a female louse lays an egg, attaches it to the hair root, and the egg hatches 10 days later. The second stage is the “Nymph Stage” that lasts about 12 days until adulthood. The final stage is the “Adult Stage” lasting 30 days, and female louse is able to lay up to 10 eggs per day. During these stages of life, if the lice become separated from the scalp, they will not live longer than 2 days.<sup>4,5</sup>

1. Parasites-Lice-Head Lice. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. [Internet]. [Updated 2013 Sept. 24; Cited 2014 Aug 11]. Available from: <http://www.cdc.gov/parasites/lice/head/>
2. Head Lice. American Academy of Dermatology. [Internet]. [Updated 2014; Cited 2014 Aug 11]. Available from: <http://www.aad.org/dermatology-a-to-z/diseases-and-treatments/e---h/head-lice>
3. Anandan JV. Parasitic Infections. In: Alldredge BK, Corelli RL, Ernst ME, Guglielmo BJ, Jackson BJ, Kradjan WA, Williams BR, editors. Koda-Kimble and Young Applied Therapeutics: The clinical use of drugs. 10th ed. Pennsylvania: Wolters Kluwer;2013.P.1842-1845.
4. How to recognized head lice. [Internet]. Bayer Healthcare. 2014; [cited 2014 August 15]. Available from: [http://www.ridlice.com/head-lice.php?WT.mc\\_id=100013RLPS&WT.srch=1](http://www.ridlice.com/head-lice.php?WT.mc_id=100013RLPS&WT.srch=1)
5. Frankowski BL, Bocchini Jr. JA and the Council on School Health and Committee on Infectious Diseases. Head lice. Pediatrics. 2010;126(2):392-403.

### Head Lice Symptoms:

The most common symptom of head lice infestation is itching. Other symptoms of head lice infestation include a tickling feeling or a sensation of something crawling in the hair, irritability, sleeplessness, and sores on the head due to scratching.<sup>1,2</sup>

1. Disease-Head Lice. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. [Internet]. [Updated 2013 Sept 24; Cited 2014 Aug 15]. Available from: <http://www.cdc.gov/parasites/lice/head>
2. Frankowski BL, Bocchini Jr. JA and the Council on School Health and Committee on Infectious Diseases. Head lice. Pediatrics. 2010;126(2):392-403.

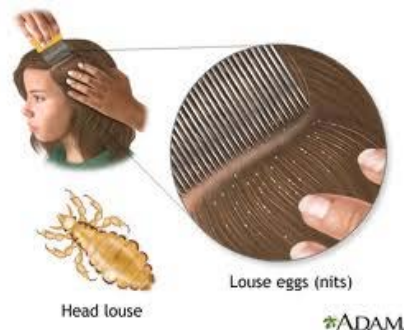
## Who is at Risk?

In the United States, head lice are most commonly seen in preschool through elementary aged children as well as in their families and other caretakers. Millions of children between the ages of 3 and 12 get head lice each year, and infestations are especially common in schools. Infestations also seem to be most prevalent in the warmer months of the year, specifically from August through November.<sup>1-3</sup> Anyone may get head lice, and contracting it is not necessarily related to the cleanliness of the person or surrounding environment.<sup>1</sup> Girls seem to get head lice more often than boys, and this may be primarily due to more frequent head to head contact among young girls.<sup>2</sup>

1. Parasites-Lice-Head Lice. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. [Internet]. [Updated 2013 Sept. 24; Cited 2014 Aug 11]. Available from: <http://www.cdc.gov/parasites/lice/head/>
2. Head Lice. American Academy of Dermatology. [Internet]. [Updated 2014; Cited 2014 Aug 11]. Available from: <http://www.aad.org/dermatology-a-to-z/diseases-and-treatments/e---h/head-lice>
3. Buff W, Powell PH. Insect bites and stings and pediculosis. In: Handbook of Nonprescription Drugs: An alternative approach to self-care. 17th ed. Washington D.C.: American Pharmacists Association;2012. p.675-692.

## Diagnosing Head Lice:

Head to head contact is the most common method of contracting head lice. Head lice do not have the ability to jump from person to person. Rather, they have the ability to crawl from one person to the next or they may crawl onto other objects that come in contact with hair before being transmitted.<sup>2</sup> Less common forms of contraction include any of the following: wearing infested clothing such as hats, scarves, or hair ribbons, using infested combs or towels, or lying on furniture on which the infested person has come in contact.<sup>1</sup>



Head lice may be diagnosed by anyone, as long as you know what to look for. A diagnosis is usually made by identifying a live nymph or adult louse on the scalp.<sup>2</sup> This is more difficult than it sounds; however, because these adult and nymph lice are very small, quick, and typically avoid light. A lice comb or another type of fine tooth comb and light are usually needed when trying to determine if someone has contracted head lice. If live lice are not seen initially, you may also search for nits on the person's hair or scalp. Nits are the empty eggs left behind after the lice have hatched. In general, if the nits are within a ¼ inch of the base of the hair shaft the person may likely be infested; however, this does not confirm that the person is definitely infested with head lice.<sup>1</sup>

1. Parasites-Lice-Head Lice. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. [Internet]. [Updated 2013 Sept. 24; Cited 2014 Aug 11]. Available from: <http://www.cdc.gov/parasites/lice/head/>
2. Head Lice. American Academy of Dermatology. [Internet]. [Updated 2014; Cited 2014 Aug 11]. Available from: <http://www.aad.org/dermatology-a-to-z/diseases-and-treatments/e---h/head-lice>
3. Frankowski BL, Bocchini Jr. JA and the Council on School Health and Committee on Infectious Diseases. Head lice. Pediatrics. 2010;126(2):392-403.

## Hair Raising Facts about Head Lice



<p><b>Myth #1:</b> If you have lice, your head will itch</p>	<p><b>False:</b> The most common symptom of head lice is itching, but lice can still be present in the absence of itching.</p>
<p><b>Myth #2:</b> Serious diseases can be spread by lice</p>	<p><b>False:</b> Head lice are considered unable to spread disease.</p>

<b>Myth #3:</b> It is possible to kill lice in one treatment	<b>False:</b> A second treatment is often needed to kill newly hatched lice before new reproduction can occur.
<b>Myth #4:</b> Pets can give you head lice	<b>False:</b> The types of lice that live on pets do not infect humans and vice versa.
<b>Myth #5:</b> Patients can use mayonnaise, olive oil, margarine, or butter to eliminate lice.	<b>False:</b> There is no evidence that these substances can suffocate lice.
<b>Myth #6:</b> My child has lice and shaving their head is the only solution.	<b>False:</b> You do not have to shave your child's head because more practical options are available.



1. Lice Myths versus Misconceptions [Internet]. Bayer Healthcare. 2014; [cited 2014 August 15]. Available from: <http://www.ridlice.com/lice-facts.php>

### Treatment Options:

Any suspected person determined to have an active lice infestation should have treatment as soon as possible, as well as anyone who has come in recent contact. Over the counter products, permethrin and pyrethrin, are generally recommended first line unless regional resistance has been documented.<sup>1</sup> Once a product has been selected, apply the treatment and carefully follow the instructions on the labeled container, especially if retreatment is required. Nit combs provided in the container should be used to remove nits and head lice after treatment. Carefully recheck the hair around the affected area every 2 days for up to 3 weeks to reduce the likelihood of re-infestation.<sup>2</sup>

### Treatment Options

Prescription Name	Image	Administration	Comments
Sklice® (ivermectin)		Apply to dry scalp and hair thoroughly. Leave on for 10 minutes and rinse with warm water.	This product can be used in patients 6 months or older. This medication works by suffocating the lice. <b>Cost: \$310</b>
Ovide® (malathion)		Apply to dry scalp and hair and rub in gently. Allow hair to dry naturally. After 8 to 12 hours wash hair with non-medicated shampoo and rinse.	This product can be used in children 6 months or older. This medication works by starving the lice of human blood. <b>Cost: \$157</b>
Natroba® (spinosad)		Apply to dry scalp and hair and rub gently. Leave on for 10 minutes then rinse hair with warm water. If live lice are seen 7 days after treatment, repeat.	This product can be used in children 6 months or older. This medication works by paralyzing the lice. <b>Cost: \$248</b>

OTC Name	Image	Administration	Comments
Nix (permethrin)		After hair is shampooed, rinsed, and towel dried, apply to saturate hair and scalp. Leave on hair for 10 minutes before rinsing with water. Repeat in one week if lice or nits are still present.	Can be used for anyone greater than 2 months of age.  <b>Most common 1<sup>st</sup> choice</b>  <b>Cost: \$9.00</b>
Rid (pyrethrin)		Apply to dry hair until hair is wet with product. Leave on hair for 10 minutes, then rinse and shampoo with regular shampoo. Repeat in 7 to 10 days.	Can be used for anyone greater than 2 years of age.  <b>Cost: \$5.00</b>

1. University of Texas, School of Nursing Family Nurse Practitioner Program. Guidelines for the diagnosis and treatment of pediculosis capitis (head lice) in children and adults 2013. Austin (TX): University of Texas, School of Nursing: 2013 May; 17 p. Available from: <http://www.guideline.gov/content.aspx?id=46429>
2. Parasites-Lice-Head Lice-Treatment. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. [Internet]. [Updated 2013 Sept. 24; Cited 2014 Aug 11]. Available from: <http://www.cdc.gov/parasites/lice/head/treatment.html>

### Prevention & Control:

There are several actions that can be taken and taught to children to help prevent and control the spread of head lice. First, always try to avoid head to head contact during play or other activities. Never share clothing such as hats, hair ribbons, scarves, and barrettes worn in or around the hair.<sup>1-3</sup> Avoid sharing combs and brushes with others, and disinfect any of these items that have been used by an infested person by soaking them in hot water for five to ten minutes. Some other steps include washing and drying clothing and bed linens in hot water (130°F), and vacuuming the floors, furniture, and any other areas the infested person may have sat or laid.<sup>1</sup>



1. Parasites-Lice-Head Lice. U.S. Department of Health and Human Services. Centers for Disease Control and Prevention. [Internet]. [Updated 2013 Sept. 24; Cited 2014 Aug 15]. Available from: <http://www.cdc.gov/parasites/lice/head/>
2. Albrecht, S. The prevention and treatment of head lice in children. U.S. Pharmacist. 2012;37(3):32-6.
3. Frankowski BL, Bocchini Jr. JA and the Council on School Health and Committee on Infectious Diseases. Head lice. Pediatrics. 2010;126(2):392-403.

### The Last Dose:

*“A person’s a person, no matter how small.” –Dr. Seuss*



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