Newsletter

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OnSite™ SERVICES

Energy • Environmental • Facilities

Got Lice?

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Lice are wingless insects with highly modified mouth parts developed for piercing skin and sucking blood. They are obligate parasites, spending their entire life on mammalian skin and living exclusively on blood. Human lice survive by feeding on human blood. Lice found on each area of the human body are different from each other. The three types of lice that live on humans are: *Pediculus humanus capitis* (head louse), *Pediculus humanus corporis* (body louse, clothes louse), and *Pthirus pubis* ("crab" louse, pubic louse). Head lice infestation is most common among preschool and elementary school children and their household members and guardians. It has been estimated that over 6 million children (more than 10% of the elementary school population) are affected annually.

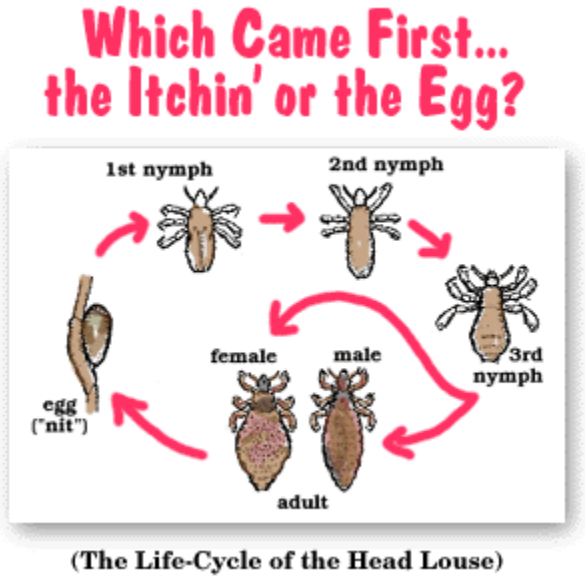
They're Creepy and They're Kooky…

Adult head lice average 2.1-3.3 mm in length, similar to the size of sesame seeds, and are tan to grayish-white in color. They are usually found close to the scalp, but may also be found on the eyebrows or eyelashes. The adults infest the head and neck and lay small yellowish-white, oval-shaped eggs (nits). Their eggs are glued at an angle to the base of the hair shaft about ½ inch from the scalp. Nits must be laid by living adults, and after 7-10 days, they can begin to hatch. Any females become mature enough to lay more eggs within another 7-10 days, and they can lay up to 100 eggs. Newly hatched adults have a clear color, and they acquire the well-known reddish-brown color upon feeding. A single mature female can produce enough offspring to cause a significant infestation in one month's time.

Lice infestations are most commonly spread by close person-to-person contact. Dogs, cats, and other pets do not play a role in the transmission of human lice because they need human blood to survive. Lice move only by crawling quickly, not by jumping or flying. Adult lice live on a human host for an average of 32 days, but they usually do not survive for more than 24 hours without a host. Eggs can live more than two weeks on a host, but they won't hatch at room temperature, once removed from the host. If the infestation is heavy, then adult lice may be seen crawling on the host. Otherwise, lice are difficult to see on the head or on clothing.

Symptoms & Control Strategies

Head lice are not known to transmit disease, only the body louse is known to spread disease. However, any lice infestation causing intense scratching can lead to a secondary bacterial infection of the skin. Symptoms other than intense itching include: small, red bumps that can become crusty and seep on the scalp, neck, and shoulders or small, white dots (nits) that are difficult to remove from the bottom of hairs.



(The Life-Cycle of the Head Louse)

The appearance of head lice on a person is not related to cleanliness of that person or their environment. Instead, they are spread by direct contact with the hair of an infested person. For children, there are frequent opportunities for direct contact whether at school, home, during team sporting events, sleepovers, or campouts. There are also less common ways of transmission such as wearing clothing (i.e. hats, scarves, coats, sports uniforms, or hair ribbons), using various items (i.e. combs, brushes, or towels), or lying on surfaces (i.e. bed, couch, pillow, carpet, or stuffed animal) that has recently been in contact with a host.

Regular inspections should be conducted by trained personnel using disposable gloves and looking closely under bright light. A magnifying glass can always be utilized. Studies have shown even trained professionals occasionally miss live lice because they are so small and difficult to see. Treatment is always recommended even if a single egg is discovered. Always treat all infected individuals promptly and thoroughly. Wash all clothes and bed linens in hot water with detergent to prevent further spreading of adult head lice.

Home remedies are not recommended treatment methods—lice don't drown. Studies have shown lice can survive in hair covered with olive oil, mayonnaise and even petroleum jelly—even when it is left

on the hair overnight. Shampooing with ordinary shampoo won't kill lice. Lice can survive through two consecutive shampooings, even when the hair is not rinsed for an hour after the second shampooing. Both over-the-counter and prescription medications are available for treatment of lice infestations, such as lotions and shampoos containing permethrin. Such medicine should be used exactly as directed.

There are permethrin-containing products, such as NIX®, RID®, A-200®, Clear® and store brands with similar active ingredients. When used correctly, these over-the-counter products are fairly safe, but children can exhibit minor problems such as itching, minor rash or allergic reaction. However, US research has shown lice are becoming resistant to these types of products, which means live lice will still be found after treatment.

A product reintroduced to the U.S. market several years ago is Ovide®. The active ingredient in this lotion is malathion, an organophosphate insecticide. Lice resistant to permethrin products may be better controlled with this product. However, this product is prescription-only, has an unpleasant odor, and is flammable. Add these factors to its instructions which say to soak the child's hair, and leave it on for 8 to 12 hours.

Another prescription-only shampoo product available is Kwell®. The active ingredient, lindane, has been reported as ineffective because of product resistance in many parts of the world. Not only does this product require more time to kill adults and nymphs, but lab tests result showed carcinogenicity and blood disorders from the shampoos. It is not a recommended treatment product.

Please note there are always known health risks inherent with the use of pesticides on children. These risks increase dramatically when you follow one chemical treatment with another. As a result, the National Pharmacy Association advises parents to discontinue the use of any treatment at the earliest sign of failure and to avoid using other chemicals. Manual removal is the best option whenever possible, especially when treatment products have failed.

Implement a regular awareness program for students, employees, and parents. Encourage them against sharing hair brushes, combs, hair pieces, hats, bedding, towels, or clothing. Train custodial personnel specific techniques to cleaning areas that were exposed to infested students. We recommend training all district staff on this issue, paying special attention to classroom prevention, symptom characteristics, and reporting procedures, on an annual basis.

Head Lice & School Policy

In Texas, a child must be excluded from attendance if he/she has or is suspected of having various communicable conditions (25 TAC 97.7). After one medicated treatment has been administered or a physician's note stating such, the child can be returned to school. A head check is not required upon acceptance, and reporting requirements are also not required. However, many school districts have taken measures to strengthen their policies above what is required by law.

It's important to remember that future cases of head lice are inevitable when considering school environments, and any preparation made to plan for these problems can only improve the outcome. Instead of scheduling your nurse to conduct a mass screening, maybe coordinate with other staff members and work with smaller groups. Also consider scheduling more time for your nurse to work with special-needs students. Upon discovery of the student host, exclusionary practices must be able to conform to each situation. Some parents/guardians will not be available to pick up a student, and the campus may have to isolate the student for the remainder of the day.

Family members of any child found with head lice should also be checked for head lice. Unless the problem is addressed at home, an infestation may reoccur. Some school districts have adopted a "no nit" policy and do not allow students back into the classroom with any nits remaining on the hair. However, recent research has shown that most nits, especially those more than one inch from the scalp, will not develop into lice, so these types of policies should be scrutinized to ensure children are not being kept out of school unnecessarily.

Requiring an FDA-approved treatment be used before the student can be readmitted to school is strongly recommended, but also be prepared to offer assistance if the student's family cannot afford this type of treatment. If the family is unwilling to treat the problem, then consider applying to the situation any policies regarding excessive absences. Double-check your district's current policy statement regarding lice-related cases, and then consult with your school nurse and local health department before considering any updates. Decisions will be made, and it is vital to learn from each situation to decrease liability and improve overall response.

Lice & Your Community

When dealing with head lice in your district, please remember that you don't have to reinvent the wheel. There are many resources available from other districts, public health officials, and universities that continually deal with the same problem. We strongly recommend contacting your regional or local health department for assistance, including staff training, public meetings, or any delicate issues. The Texas Department of State Health Services (TDSHS) School Health Program has been charged by the legislature to provide current and accurate information to school staff, parents and the general public on how to recognize, treat and prevent head lice in a safe and effective way. The TDSHS offers, in both English and Spanish, fact sheets, parent information pages, misconceptions, and many other resources that can be downloaded and distributed to nurses, parents, employees, and students. These can all be accessed at the following link: http://www.dshs.state.tx.us/schoolhealth/lice.shtm

Lice & School IPM

Head lice will continually become more difficult to manage than in past years because resistance to both prescription and nonprescription treatments will increase. However, it is not recommended to make an unnecessary pesticide application in a school where students have become infested. Head lice spend their entire lives in the human head, and most will die within 3 days once removed from their host.

An application would be a waste of time, product, and hassle, and all pesticide applications on school property must be conducted by a properly licensed individual.

Because head lice outbreaks are considered a public health issue, school IPM laws do not directly affect these types of cases. We strongly recommend the same level of diligence to prevent and handle head lice problems because they are an inevitable nuisance and disrupt the school environment. Keep open and constant communication with parents and employees, implement proper cleaning procedures for affected areas, and limit contact between students to prevent further transmission.

Upcoming OnSite Training Opportunities

December	**Austin TX (TASB Campus)**		
December 16	Grounds Management	7 hours	8 a.m.- 4 p.m.
December 17	Hazardous Materials Coordinator	6 hours	8 a.m.- 3 p.m.
December 18	IAQ Coordinator	6 hours	8 a.m.- 3 p.m.
January 2009	**Austin TX (TASB Campus)**		
January 13	Asbestos Designated Person	8 hours	8 a.m.- 5 p.m.
January 14	IPM Coordinator	6 hours	8 a.m.- 3 p.m.
January 15	Environmental/Facilities Regulatory Compliance	6 hours	8 a.m.- 3 p.m.
February	**Splendora ISD (Region 6)**		
February 3	Asbestos Designated Person	8 hours	8 a.m.- 5 p.m.
February 4	IPM Coordinator	6 hours	8 a.m.- 3 p.m.
February 5	IAQ Coordinator	6 hours	8 a.m.- 3 p.m.
April	**San Angelo ISD (Region 15)**		
April 14	Asbestos Designated Person	8 hours	8 a.m.- 5 p.m.
April 15	IPM Coordinator	6 hours	8 a.m.- 3 p.m.
April 16	IAQ Coordinator	6 hours	8 a.m.- 3 p.m.
April	**Frisco ISD (Region 10)**		
April 14	Asbestos Designated Person	8 hours	8 a.m.- 5 p.m.
April 15	IPM Coordinator	6 hours	8 a.m.- 3 p.m.
April 16	IAQ Coordinator	6 hours	8 a.m.- 3 p.m.
May	**Austin TX (TASB Campus)**		
May 12	Grounds Management	7 hours	8 a.m.- 4 p.m.
May 13	Hazardous Materials Coordinator	6 hours	8 a.m.- 3 p.m.
May 14	IAQ Coordinator	6 hours	8 a.m.- 3 p.m.
July	**Austin TX (TASB Campus)**		
July 21	Asbestos Designated Person	8 hours	8 a.m.- 5 p.m.
July 22	IPM Coordinator	6 hours	8 a.m.- 3 p.m.
July 23	Environmental/Facilities Regulatory Compliance	6 hours	8 a.m.- 3 p.m.

Fees: OnSite Members *FREE*

Non-members:

Asbestos Designated Person	$425
IPM Coordinator	$425
IAQ Coordinator	$425
Grounds Management	$425
Environmental/Facilities	$325
HAZCOM Coordinator	$325

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Please check the web-site for additional information