



Texas Department of State Health Services
Health Service Region 1
Epidemiology

Head Lice Fact Sheet

What are head lice?

The head louse is a parasitic insect that can be found on the head, eyebrows, and eyelashes of people. They feed on human blood several times a day and live close to the scalp.

Where do head lice come from?

Pediculus humanus capitis, the head louse, is an insect whose only hosts are humans. The louse feeds on blood and resides close to the scalp to maintain its body temperature. The life cycle of the head louse has three stages: egg, nymph, and adult louse.

Nits are lice eggs. They are hard to see and are often confused for dandruff or hair spray droplets. The nit is laid by the female near the base of the hair shaft and usually takes about 8-9 days to hatch. Viable eggs are usually located within 6 mm of the scalp.

A nymph is an immature louse which matures into an adult in about 7-12 days after hatching. A nymph must feed on blood to survive. It looks like an adult head louse but is about the size of a pinhead.

The adult louse is about the size of a sesame seed, has 6 legs (each with claws), and is tan to grayish white in color. Females can lay up to 8 nits per day. Adult lice can live up to 30 days on a person's head. They must feed on blood several times a day to survive and will die within 1-2 days off of the host.

What are the symptoms of head lice infestation?

Symptoms include a tickling feeling of something moving in the hair, itching caused by allergic reaction to the bites, irritability, difficulty sleeping (head lice are most active at night), and sores on the head caused by scratching. These sores caused by scratching can become infected with bacteria normally found on a person's skin. Lice and nits are found almost exclusively on the scalp, particularly around and behind the ears and near the neckline at the back of the head.

How soon do symptoms appear after exposure?

Some people may not have symptoms, particularly with the first infestation or when the infestation is light. It may take 4-6 weeks for itching to appear the first time a person has head lice.

How are head lice spread?

Head lice infestation is spread most commonly by close person to person contact. Dogs, cats, and other pets do not play a role in the spread of head lice. Head to head contact with an infested person is the most common way to get head lice. It is beneficial for the sake of others to share information with school nurses, parents of classmates, and others about contact with head lice. Head lice move by crawling. They cannot hop or fly.

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Spread by contact with clothing (such as hats, scarves, coats) or other personal items (such as combs, brushes or towels) used by an infested person is uncommon but may occur. Head lice and their eggs soon perish if separated from their human host. Adult lice can only live a day or so without blood for feeding and nymphs can only live for a few hours without feeding. Nits will generally die within a week away from the host and cannot hatch at temperature lower than that close to the human scalp. For these reasons it is difficult for wigs or hairpieces to spread lice unless they have been worn within the previous 48 hours by someone who is actively infested with live lice.

How is a head lice infestation diagnosed?

Diagnosis of head lice infestation is best made by finding a live nymph or adult louse on the scalp or hair. They may be difficult to find therefore a fine toothed louse comb and a magnifying glass may help identify live lice. Finding firmly attached nits within ¼ inch of the base of the hair shaft strongly suggests but does not confirm the person is infested. If no live lice or nymphs are seen and the only nits found are more than ¼ inch from the scalp the infestation is probably old and no longer active and does not need treatment. If you are not sure if a person has head lice, the diagnosis should be made by their health care provider, local health department, or other person trained to identify live head lice.

Are there long-term complications of a head lice infestation?

Head lice are not known to transmit any disease and therefore are not considered a public health hazard. They are an annoyance because their presence may cause itching and loss of sleep. Sometimes the itching can lead to excessive scratching that may increase the chance of a secondary infection.

How are head lice treated?

Treatments for head lice are available both over the counter and by prescription. Before treating young children, consult the child's doctor regarding the recommended treatment based on the child's age and weight. Retreatment may be needed in 7-9 days depending on the drug used. All household members and other close contacts should be checked and treated if evidence is found. Some experts believe prophylactic treatment is prudent for persons who share the same bed with actively infested individuals. All infested household members and close contacts and their bedmates should be treated at the same time.

To treat the infested person requires using an over the counter or prescription medication. Follow these treatment steps:

- Before applying treatments, it may be helpful to remove clothing that can become wet or stained during treatment.
- Apply the medication according to the instructions contained in the box or on the label. If the infested person has very long hair (longer than shoulder length) it may be necessary to use a second bottle. Pay special attention to the instructions regarding how long the medication should be left on the hair and how it should be washed out. Do not use combination shampoo/conditioner or conditioner before using lice medicine. Do not re-wash the hair for 1-2 days after the lice medicine is removed.
- Have the infested person put on clean clothing after treatment.
- If a few live lice are still found 8-12 hours after treatment but are moving more slowly than before, do not retreat. The medicine may take longer to kill all the lice. Comb dead and any remaining live lice out of the hair using a fine toothed nit comb.

- If after 8-12 hours of treatment no dead lice are found and lice seem as active as before, the medicine may not be working. Do not retreat until speaking with your health care provider as a different medication may be needed.
- Nit (head lice egg) combs, often included in the lice medicine package, should be used to comb nits and lice from the hair shaft. After each treatment, checking the hair and combing with a nit comb to remove nits and lice every 2-3 days may decrease the chance of self- re-infestation. Continue to check for 2-3 weeks to be sure all lice and nits are gone.
- Retreatment is meant to kill any surviving hatched lice before they produce new eggs. For some drugs, re-treatment is recommended routinely about a week after the first treatment (7-9 days, depending on the drug) and for others only if crawling lice are seen during this period.
- Supplemental measures include: machine wash and dry clothing, bed linens, and other items the infested person wore or used during the 2 days prior to treatment using hot water (130° F) laundry cycle and high heat drying cycle. Clothing and items that are not washable may be dry cleaned or sealed in a plastic bag and stored for 2 weeks. Soak combs and brushes in 130° F water for 5-10 minutes. Vacuum the floor and furniture where the infested person sat or lay. Do not use fumigant sprays; they can be toxic if inhaled or absorbed through the skin.

Who gets head lice?

Head lice are most common among pre-school children attending child care, elementary school children, and household members of infested children.

How long can a person carry head lice?

A person can continue to have head lice as long as the lice are reproducing and have not been treated. An adult louse usually only lives about 30 days on a person's head, but the female can lay up to 8 nits a day resulting in a continuous cycle of nits, nymphs, and adult lice.

How common are head lice?

Head lice are not a notifiable condition, so reliable data on how many people in the United States get head lice each year is not available. However, an estimated 6 million to 12 million infestations occur each year in US children in the 3 to 11 year age range.

How can head lice be prevented?

Avoid head to head (hair to hair) contact during play and other activities at home, school, and elsewhere (sports activities, playgrounds, slumber parties, camp). Do not share combs, brushes, or towels. Do not lie on beds, couches, pillows, carpets, or stuffed animals that have recently been in contact with an infested person.

Are there any restrictions for people with head lice?

There are no exclusion criteria from work or school for those infested with head lice, but they should be treated and taught to avoid activities that could spread the lice to others.

Where can I get more information?

More information may be found at <http://www.cdc.gov/parasites/lice/head>, your local health department, or health care provider.

Sources:

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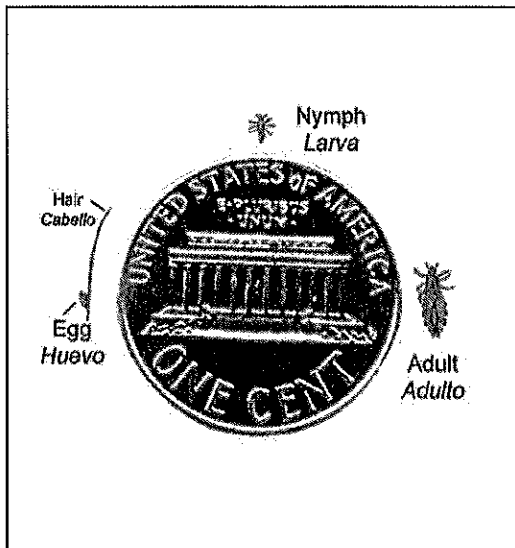
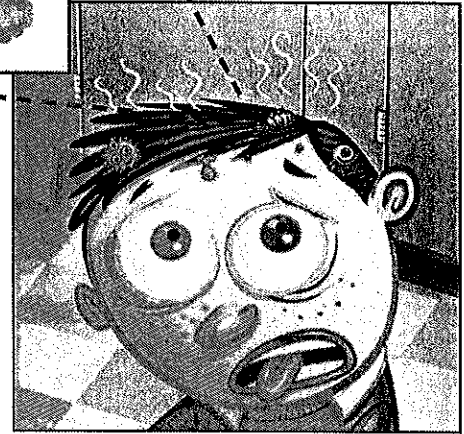
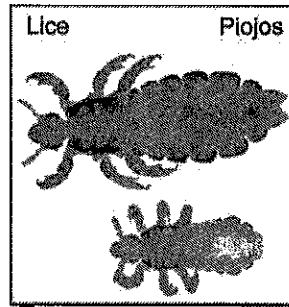
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Head Lice Fact Sheet — No.1

What are lice?

1. Lice, or Pediculosis (pe-dic-u-lo-sis), are small tan to grayish-white insects, about the size of a sesame seed and have six legs.
2. They don't usually carry disease, but can cause your child and family discomfort, stress and sometimes skin irritation.
3. Lice can live up to 30 days on a person's head and lay from 50 to 150 eggs. To live, adult lice need to feed on blood every 3 to 6 hours. If the louse falls off a person, it dies within 2 days.
4. There are three types of lice: head, body and crab lice. Body lice haven't been reported in Texas for years. Head lice and crab lice are common but not usually found at the same time on a person.



Here's where they can hide:

- Head lice live on the head and rarely leave the body.
- Body lice live in the seams and linings of clothing, blankets and sheets and move to the body when feeding.
- Crab lice live on the hairy portions of the body. They like the pubic and anal areas; but, only on adults. Adults who have pubic lice should be examined for sexually transmitted diseases (STDs). Even though crab lice and STDs aren't related, both conditions may be present at the same time. Children rarely get crab lice. However, if a child has it, you may want to suggest an examination for possible signs of inappropriate contact.

Head Lice Fact Sheet — No.2

How do I know if my child has head lice and if so, how did they get it?



1. Itching is the first sign of head lice, unless your child has a very light case. Check your child's head and scalp all over and especially behind the ears and near the neckline at the back of the neck when scratching begins.
2. Look for lice and their eggs or "nits." (See Fact Sheet #3 to find out about nits.) You may see the nits before you find a louse because each louse can lay up to 150 at a time.
3. You may first find lice or nits on the hairs at the "nape" of the neck (back of the head where the hair stops and the neck begins) and behind the ears. But, they can live anywhere; so, look all over the scalp.
4. If you know of another child with head lice, be alert that your child may contract lice, too. There is no incubation period. When live lice move from one child's head to another; they are "home" and can begin laying eggs immediately.
5. Children get head lice almost as much as the common cold. Millions get it at least one time, once a year.

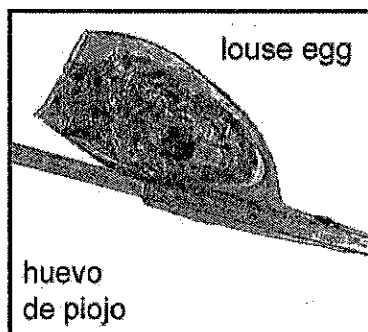
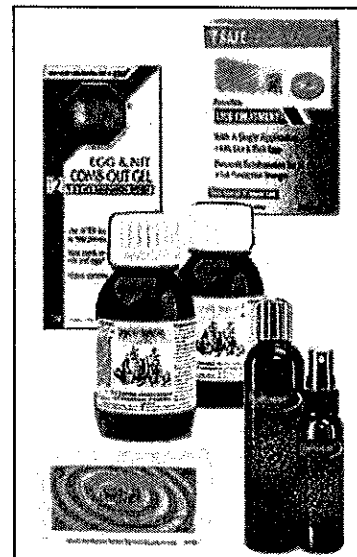


6. Children get lice from other children. They move from child to child through head to head contact.
7. Lice cannot hop, jump or fly but can crawl from child to child anytime children are close together; during play or sports or even nap time.
8. Sharing combs, brushes, hair fasteners, hats, caps, coats, neck scarves and even head phones spreads them, too. Sharing a locker or cubbyhole with a lice-infested child is a common way to spread lice. If left behind, lice can attach to your child while sitting on carpets or furniture. Lice can even attach to stuffed toys.
9. Children get lice more than teens or adults. ANY child can get head lice! It doesn't matter where they live or go to school; how much money they have; or, if boy or girl, black, white or brown.
10. A child isn't sick or unclean if they have head lice. Taking baths won't kill lice or keep children from getting lice. And, if a child has head lice, it certainly doesn't mean they have bad parents.
11. Dealing with lice is difficult, sometimes embarrassing and can be overwhelming to anyone caring for children. See Fact Sheet #3 for how to get rid of lice.

Head Lice Fact Sheet — No.3

What should I do if I think my child has head lice?

1. You can take care of your child's head lice problem at home without a visit to the doctor or clinic. Treatment should be with shampoo or cream rinse approved by the FDA that can be purchased without a prescription at the drug store, grocery store or other places that carry drug store products.
2. Many parents feel embarrassed when their child has lice. Sometimes it helps to talk to someone who can offer extra help. The nurse at your child's school, your physician and even the pharmacist can help. Neighborhood, city or county health clinics may provide trained, helpful professionals. Contact your area Department of State Health Services Public Health Region for suggestions. See Fact Sheet #6 for Regional offices or go to www.dshs.state.tx.us/regions/default.shtm for the listing.



3. After the first treatment, you may not see live lice but you might see nits. If the nits (or lice eggs) are attached to strands of hair $\frac{1}{4}$ inch or less from the scalp, they are probably not dead. This means live lice could still be living somewhere on your child's head; or, soon will hatch from the remaining eggs.
4. That's why, after treatment, it is important to comb out the nits left in your child's hair with a special nit comb available to pick up where you buy lice treatment.
5. Nits are very tiny; about the size of a knot in a thread. They are shaped like a long football, yellow to white in color and are often mistaken for dandruff or hair spray droplets. They attach to a hair at the scalp with a waterproof, cement-like substance. That's why they can be difficult to remove.
6. You may find nits first on the hairs at the "nape" of the neck (back of the head where the hair stops and the neck begins) and behind the ears. But, they can live anywhere; so, look all over the scalp.
7. A second treatment and then a second combing are necessary. Even after thoroughly using the nit comb, live lice or nits could still be hiding somewhere on your child's head. All products specifically created to treat head lice will recommend a second treatment anywhere from 7 to 10 days after the first treatment in order to kill any remaining or newly hatched lice.

Head Lice Fact Sheet — No. 4

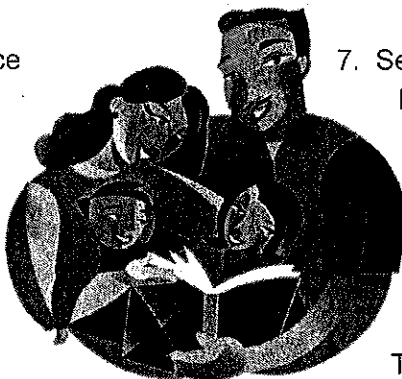
How do I keep lice from coming back?

1. Carefully follow the directions on the lice treatment package. Not following directions, is the biggest reason why it doesn't work.
2. If your child has extra long hair (longer than shoulder length), you may need to use a second bottle. Pay special attention to instructions on the bottle about how to thoroughly work it into the hair, how long the medication should be left on and whether rinsing the hair is recommended after treatment.
3. Comb out the nits left after treatments. (See Fact Sheet #3 to learn about nits.) Do this by sliding a nit up the hair shaft with your fingers or using a nit comb. Special nit combs are available in the store where you bought the lice treatment.
4. Most of the time a second treatment is necessary. If you don't kill the nits, they will hatch and your child will have lice again – this time without any contact with another infested child! All products specifically created to treat head lice will recommend a second treatment and a second nit combing, anywhere from 7 to 10 days after the first treatment to kill any left over lice and nits.



5. Launder clothing and bedding immediately before lice treatment on your child so any live lice living there can't crawl onto lice-free, just treated heads!

- Laundry water should be at least 130 degrees Fahrenheit to kill the lice.
 - **CAUTION:** Do not bathe or shampoo in water this hot! This temperature is for laundry only!
6. Dry cleaning kills lice and their nits in clothing that can't be washed.



7. Sealing clothing, stuffed toys, pillows, blankets or other small soft items, for two weeks in tightly closed plastic bags will kill both lice and nits! It's low cost, too.
8. Safe, effective, FDA approved chemical sprays made to kill head lice, are available over the counter. These are OK to use on things that can't be washed, dry-cleaned, or sealed in plastic bags; like furniture, carpets, car seats or other large, immobile or non-washable items.

9. Vacuum or sweep carpets, furniture and curtains to pick up any live lice or nits that may have fallen or crawled there.
10. Soak combs, brushes and some other washable items for one hour in one of the approved lice shampoos; or, soak them for 5 to 10 minutes in a pan of 130 degree hot water.



11. Teach your whole family about how lice is spread and treated. Teach your children not to share combs, brushes and other personal items with other children.
12. Ask the teacher at your child's school if there is space to keep jackets, hats and other personal items separate for each child. Ask what you can do to help the school educate children and parents to stop the spread of lice.
13. Check your child's hair from time to time for signs of lice; especially if you know of another child at school that is infested. Catching it early can cut down the number of treatments, save time and money.

Head Lice Fact Sheet — No. 5

Myths, misconceptions and truths about head lice treatment



1. Using poisons or flammable liquids like gasoline, kerosene, paint thinner or insect repellent may harm your child more than it would the lice. Chemicals should never be used unless they are approved by the FDA for the specific treatment of head lice.



2. Do not use hair dryers to kill lice or their eggs! The temperature would have to be turned up so high it could easily cause serious burns on the scalp. Burns occur when the hot dryer is either held too close to the scalp or pointed on each section too long!



3. Hair gels, hairspray, oils or other non-medicated hair products including dandruff shampoo will not kill lice or prevent eggs from hatching or sticking to the hair.



4. Old-fashion remedies aren't completely effective. Vinegar rinses or mayonnaise might kill lice but do not kill nits or detach them from hair. The nits will still hatch and your child will be infested again. (See Fact Sheet #4 for ways to treat head lice.)



5. Cutting your child's hair or shaving their head to get rid of lice won't keep them away. Lice stick to short and just "grown in" hair, too!

6. Lice don't hide in building cracks like cockroaches or sand boxes like other tiny insects. So treating homes or schools with bug sprays or other pesticides would waste money and may harm children and adults around the treated areas.



7. Your pets and other animals don't carry head lice and can't contract head lice from people.

8. Always check with your physician or health clinic before using any new treatment or device "claiming to get rid of lice and nits." In most cases these are not yet proven and not yet approved by the FDA.



9. Medications that are FDA approved for head lice treatments, whether prescription or over-the-counter are safe and effective for children over the age of two. For children younger than two, check with your physician.



The Centers for Disease control and Prevention's Web site on head lice has more information about the specific medications found in head lice products. Go to www.cdc.gov/ncidod/dpd/parasites/lice/default.htm for this and other information.