

Head Lice (source Seattle Children's Hospital)

Definition

- A scalp infection with tiny gray bugs called lice

Symptoms

- Itching of the scalp is the main symptom.
- A scalp rash may be present. The back of the neck is the favorite area.

Lice and nits

- Lice are 1/16-inch (2 mm) long, gray-colored, move quickly, and are difficult to see.
- Nits are white eggs firmly attached to hair shafts near the skin. Unlike dandruff or sand, nits can't be shaken off the hair shafts.
- The nits are easier to see than the lice because they are white and very numerous.

Lifespan of lice

- The nits (eggs) hatch into lice in about 1 week.
- Nits (eggs) that are over ½ inch (1 cm) from the scalp are empty egg cases and very white in color.
- Off the scalp, nits can't survive over 2 weeks.
- Adult lice survive 3 weeks on the scalp or 24 hours off the scalp.

Cause

- A tiny insect the size of a sesame seed

Transmission of head lice: live lice, not nits

- Only live lice can transmit lice to another child.
- Nits (lice eggs) cannot transmit lice because they are attached to the child's hair.
- Almost all transmission is from direct head-to-head (hair-to-hair) contact. Lice cannot jump or fly to another person's hair.
- Indirect transmission of lice from hats, caps, hair brushes, combs, headphones and other objects is very uncommon.
- Most transmission of lice occurs at home, not school or other public places. Sleepovers and bed-sharing are a major source.

Return to school

- Your child can return to child care or school after 1 treatment with the anti-lice shampoo **AND** your child is **free** of all nits
- Your child must be cleared by school office staff prior to returning to the classroom
- You will be required to pick up your child if nits are found

When to Call Your Doctor

Call your doctor within 24 hours (between 9 a.m. and 4 p.m.) if

- Age under 2 months old (Reason: have your doctor recommend the safest lice medicine)
- Scalp looks infected (e.g., pus, soft scabs, open sores)

Call your doctor during weekday office hours if

- You think your child needs to be seen
- Diagnosis of head lice is uncertain
- New head lice or nits appear after treatment
- Scalp rash or itch lasts over 7 days after treatment
- You have other questions or concerns

Parent care at home if

- Head lice and you don't think your child needs to be seen

Home Care Advice for Head Lice

Reassurance

- Head lice can be treated at home.
- With careful treatment, all lice and nits (lice eggs) are usually killed.
- There are no lasting problems from having head lice.
- They do not carry any diseases.
- They do not make your child feel sick.

Lice Shampoo

- Buy an approved anti-lice product (no prescription needed) and follow package directions.
- First, wash the hair with a regular shampoo and towel dry it before using the anti-lice creme. Do NOT use a conditioner or creme rinse after shampooing (Reason: interferes with Nix).
- Pour the full bottle of product into damp hair. People with long hair may need to use 2 bottles.
- Work the product into all the hair down to the roots.
- If necessary, add a little warm water to work up a lather.
- Leave the shampoo on for a full 10 minutes or it won't kill all the lice. Then rinse the hair thoroughly with water and dry it with a towel.
- REPEAT the anti-lice shampoo in 9 days to kill any nits that survived.

Remove the dead nits

- Only live lice can transmit lice to another child.
- Nits (lice eggs) do not transmit lice.
- Most treated nits (lice eggs) are dead after the first treatment with Nix. The others will be killed with the 2nd treatment in 9 days.
- Removing the dead nits is helpful for esthetic reasons and so other people won't think your child still has untreated lice.
- Nits can be removed by backcombing with a special nit comb or pulling them out individually. This is time-consuming.
- Wetting the hair makes removal easier, but avoid any products that claim they loosen the nits. (Reason: They can interfere with the ability of Nix to stay on the hair and keep working.)
- Chino Valley Unified has a no-nit policy and will not allow children to return if nits are visible.

Hairwashing precautions to help Lice Product work

- Don't wash the hair with shampoo until 2 days after lice treatment
- Avoid hair conditioners before treatment and for 2 weeks afterwards (Reason: coats the hair and interferes with Nix)

Contagiousness of lice/return to school

- Lice are transmitted by close contact (they cannot jump or fly).
- Your child can return to child care or school after 1 treatment with the anti-lice shampoo **AND** your child is **free** of all nits. Your child must be cleared by school office staff prior to returning to the classroom.
- Check the heads of everyone else living in your home. If lice or nits are seen, or someone has the new onset of an itchy scalp rash, they also should be treated with anti-lice shampoo.
- Bedmates of children with lice should also be treated. If in doubt, have your child examined for lice.
- Re-emphasize not sharing combs and hats.
- Also notify the school nurse or child care center director so she can check other students in your child's class/center.

Cleaning the house

- Lice that are off the body rarely cause reinfection. (Reason: lice can't live for over 24 hours off the human body.) Just vacuum your child's room.
- Soak hair brushes for 1 hour in a solution containing some anti-lice shampoo.
- Wash your child's sheets, blankets, pillow cases, and any clothes worn in the past 2 days in hot water (130° F or 54° C) kills lice and nits.
- Optional step (probably not necessary): Items that can't be washed (e.g., hats, coats, or scarves) should be set aside in sealed plastic bags for 2 weeks (the longest period that nits can survive).

Expected course

- With treatment, all lice and nits should be killed.
- A recurrence usually means another contact with an infected person, the shampoo wasn't left on for 10 minutes, hair conditioner was used or the treatment wasn't repeated in 9 days.

Call your doctor if

- New lice or nits appear in the hair
- Scalp rash or itch lasts over 1 week after the anti-lice shampoo
- Sores on scalp start to spread or look infected
- Your child becomes worse

Extra care advice: Cetaphil cleanser for Nix treatment failures

- Go to your drugstore and buy Cetaphil cleanser (no prescription needed) in the soap department. It works by coating the lice and suffocating them.

- Apply the Cetaphil cleanser throughout the scalp to dry hair.
- After all the hair is wet, wait 2 minutes for Cetaphil to soak in.
- Comb out as much excess cleanser as possible.
- Blow dry your child's hair. It has to be thoroughly dry down to the scalp to suffocate the lice. Expect this to take 3 times longer than it would if the hair was just wet with water.
- The dried Cetaphil will smother the lice. Leave it on your child's hair for at least 8 hours.
- In the morning, wash off the Cetaphil with a regular shampoo.
- To cure your child of lice, REPEAT this process twice in 1 and 2 weeks.
- The cure rate can be 97%.

And remember, contact your doctor if your child develops any of the "Call Your Doctor" symptoms.

References

1. Drugs for head lice. *Med Lett Drugs Ther.* 2005 Aug 5;47(1215/1216):68-70.
2. AAP Committee on Infectious Diseases and the Council on School Health. Frankowski BL and Bocchini JA. Clinical report: head lice. *Pediatrics.* 2010;126:392-403.
3. American Academy of Pediatrics: Committee on Infectious Diseases. Lice. In Pickering L, ed. 2009 Red Book. 28th ed. Elk Grove Village, IL: 2009.
4. Bloomfield D. Head lice. *Pediatr Rev.* 2002;23:34-35.
5. Chesney PJ and Burgess IF. Lice: Resistance and treatment. *Contemp Pediatr.* 1998;15(11):181-192.
6. Chosidow O, Giraudeau B, Cottrell J, et al: Oral ivermectin versus malathion lotion for difficult-to-treat head lice. *N Eng J Med* 2010;362:896-905.
7. Diamantis SA, Morrell DS, Burkhart CN. Pediatric infestations. *Pediatr Ann.* 2009;38:326-331.
8. Frankowski BL, Weiner LB, the Committee on School Health, the Committee on Infectious Diseases: Clinical Report: Head lice. *Pediatrics.* 2002;110:638-643.
9. Hogan DJ, et al. Diagnosis and treatment of childhood scabies and pediculosis. *Pediatr Clin North Am.* 1991;38:941.
10. Lebowhl M, Clark L, Levitt J. Therapy for head lice based on life cycle, resistance, and safety considerations. *Pediatrics.* 2007;119(5):965-973.
11. Pearlman D. A simple treatment for head lice: dry-on, suffocation-based pediculicide. *Pediatrics.* 2004;114(3):e275-e279.
12. Pollack RJ et al. Differential permethrin susceptibility of head lice sampled in the United States and Borneo. *Arch Pediatr Adolesc Med.* 1999;153:969-973.
13. Stough D, Shellabarger S, Quiring J, et al. Efficacy and safety of spinosad and permethrin creme rinses for *Pediculosis Capitis* (Head Lice). *Pediatrics.* 2009;124:e383-e395.
14. Yoon KS, Gao JAR, Lee SH, et al. Permethrin-resistant human head lice. *Arch Dermatol.* 2003;139:994-1000.

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