

Head Lice

A Lousy Problem



Preface

Head lice (*Pediculus humanus capitis*) have been living on the scalps of humans for thousands of years. Throughout history, head lice have flourished without regard to age, race or social-economic status. From the ancient Greek and Egyptians, through the middle-ages and up to the present, the problem of head lice infestations continues. Some reports estimate that between six and 12 million people in the United States are infested with head lice each year. The exact number of people infested with head lice every year in the United States (and in North Dakota) is not known because head lice is not a reportable condition.

Children and their families may feel embarrassed, angry, frustrated, guilty or ashamed that they are infested with head lice. Head lice also may cause distractions, poor self-esteem and hesitancy to participate fully in educational and/or recreational activities.

This manual was developed to provide information about head lice, treatment options and guidelines appropriate for use in the home, child care settings, schools and communities. Within the professional literature, controversy exists about the treatment and management of head lice. This manual is designed to provide a balanced review of the issues pertaining to the treatment and management of head lice.

The two last pages of this manual contain fact sheets titled "Head Lice (Pediculosis)" and "Quick Guide for Removing Head Lice." These fact sheets may be reproduced and given to parents and others trying to get rid of head lice.

It is probable that head lice will never be eliminated completely. Knowing the facts about head lice transmission, treatment and management will help to ensure the best control of head lice infestations.



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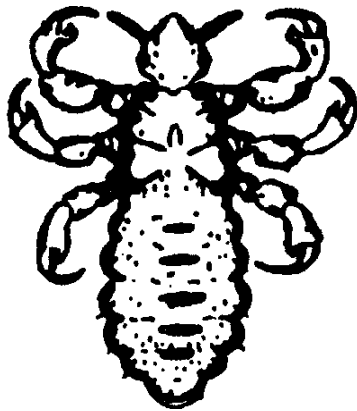


What Are Head Lice?

Head lice (*Pediculus humanus capitis*) are small parasitic insects that live mainly on the scalp and neck of humans. *Parasitic* refers to an organism that lives on the body of a host. In the case of head lice, the host is a human. Head lice do not and cannot live on animals. It is specific to humans.

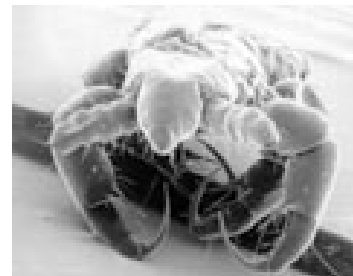
The adult louse (singular) is flat and wingless and does not have the ability to fly, hop or jump. Lice tend to adapt to their surroundings (hair and skin color), so they range in color from red, brown or black to gray-white and are often hard to see. A louse is very small (about 1/8 inch in length), has six legs, a diamond-shaped head and an elongated body. The mouth is shaped like a stylet. This allows the louse to pierce a person's scalp so that it can feed (blood meal).

Human Head Louse



Highly magnified

Front view of an actual
louse on a hair shaft
(highly magnified)



The adult louse is about the size of a sesame seed.

Actual Size

The term “louse” or “lice” used in this text refers to *pediculus humanus capitis* (head lice).



Life Cycle

The life cycle of the louse consists of three stages:

Stage 1 – Eggs (commonly called nits):

The head louse begins life as an egg, commonly referred to as a nit. Nits are laid by the adult female. The nits are attached to the hair shaft by a glue-like substance produced by the louse. Nits range in color from white to yellow to tan to grayish in color, depending upon the stage of development and whether or not they have hatched or been killed by treatment. Nits are oval or tear-drop shaped, smooth and very small (0.5-0.8 mm). Nits are hard to see and often are confused for dandruff, hair spray droplets or other debris.

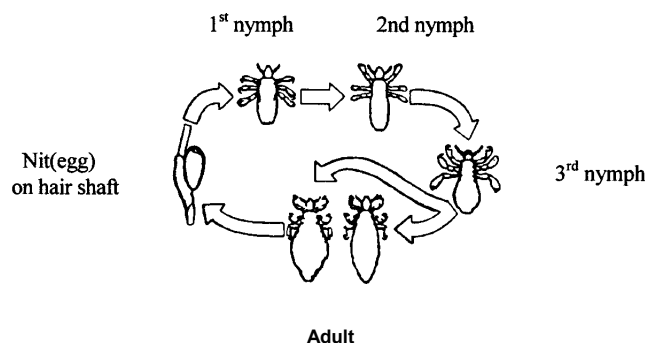
Stage 2 – Nymphs:

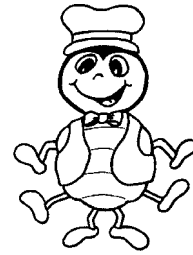
The nits incubate for about seven to 14 days, then they hatch to release a nymph. The nit shell that remains after hatching then becomes a dull yellow or translucent white and may have a wrinkled look. The nymph looks like an adult louse, but is only about the size of a pinhead. The nymph begins eating within one hour of hatching. During the next seven to 10 days, the nymph continues to grow and mature, going through three molts, until it becomes a full adult louse.

Stage 3 – Adults:

The adult louse is about the size of a sesame seed. The life span of an adult louse is about 30 days. The female is usually larger than the male and can lay three to five nits per day, or up to 150 nits during her life span (only nits that are fertilized will develop and hatch). The live, adult louse needs to feed on blood every three to six hours. Without blood meals, or once away from the human host, the adult louse can usually survive for no longer than 24 to 36 hours.

Life Cycle of the Head Louse





Transmission

Head lice are transmitted by either:

- ❑ **Person-to-person transmission (direct contact)** – Contact with an already infested person. Contact is common during play at home, child care and school settings (slumber parties, bed sharing, group work or games, sport activities). *The majority of transmissions of head lice occur by direct head-to-head contact.*
- ❑ **Vector transmission (indirect contact)** – Indirect contact occurs through using personal items of an infested person, such as combs, brushes, scarves, hair ornaments, hats, helmets and ear/headphones. Other articles or objects of transmission may include towels, bedding, sweaters, coats, stuffed toys, carpeting, upholstered furniture and athletic mats. Sharing coat hooks, lockers, car/bus/airplane and movie theater seats also provides ideal situations for the transmission of head lice.

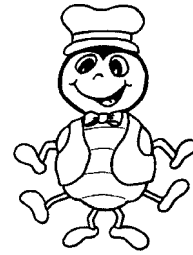
All people can get head lice, but some are at increased risk than others.

- ❑ Children between the ages of 3 to 11 are most often infested.
- ❑ Girls are infested twice as often as boys, most likely because they share more personal items.
- ❑ Lice seem to prefer red or brown hair to blonde or black hair. Hair length, however, does not seem to matter.



Remember, head lice can infest all people, regardless of age, race, social-economic status or hygiene practices. (Head lice actually like clean, healthy heads the best.) Your household pet is not a mode of transmission, since head lice are specific to human beings. Also, head lice are wingless, so they do not fly, hop or jump, but travel by crawling from one person and/or article to another person and/or article, searching for a nice warm scalp.





Detecting Head Lice

Signs and symptoms:

- ❑ **Itching** – Many children infested with head lice have no symptoms. When symptoms do occur, itching of the head is the most common symptom. Itching is caused by the louse's saliva-producing toxin that is injected into the scalp when it feeds. Itching may be from slight to severe. The amount of itching that occurs also is dependent upon the degree of infestation. Itching may be very mild if the infestation has just occurred, or it may be severe if the infestation has gone untreated for a long time. Itching also may be mild if the infested person has good personal hygiene habits that involve frequent bathing and shampooing. Regular bathing, shampooing or swimming, however, will **not** get rid of head lice!
- ❑ **Sores in the head caused by scratching** – At times, very tiny red areas on the scalp may be seen due to the bites from the louse. Sores in the head may develop from continued itching and scratching. Sometimes these sores can become infected. On rare occasions, a person may develop swollen glands in the neck or under the arms. You should contact your health care provider if you think a sore has become infected, or if you have any swelling in the neck or under the arms. Most lice infestations do not lead to infection.
- ❑ **Tickling feeling of something moving in the hair** – Another symptom reported by some people is a tickling or crawling feeling in the hair.
- ❑ **Sleeplessness** – Sleeplessness is also a common sign of lice infestation since lice like the dark and are more active at night.
- **The most obvious sign that someone is infested is the presence of nits or lice themselves.**

Remember: Head lice can infest all people, regardless of age, race, social-economic status or hygiene practices.





Treatment and Management

Treatment and management of head lice requires:

1. Careful inspection and screening of the hair and scalp to identify lice and/or nits correctly.
2. Use of a pediculicidal (head lice) product or an alternative therapy.
3. The manual removal of nits (eggs).
4. The cleaning of personal items and the environment.
5. Daily checks of the hair and scalp.

1. Careful inspection and screening of the hair and scalp to identify lice and/or nits correctly:

Head lice may be brought into the home by a person's contact with an infested person at child care, school, camp, etc., but the most rapid spread of head lice is through the home because of the close proximity of family members. Whenever one person in the family has been identified to have lice, everyone living in the home should be inspected. Any friends, family members or other people who have been in close contact with the infested person over the previous week should be notified so that they can be inspected for head lice as well.

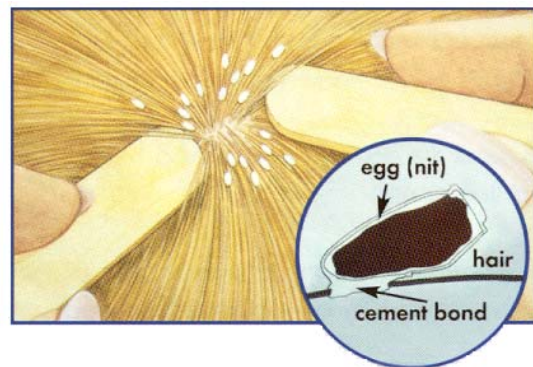
- **Careful inspection of the hair and scalp is the best way to see if a person has head lice.**

Basic supplies needed for a lice inspection/screening include:

- ❑ **Time** – The examiner needs to conduct a careful search of the hair and scalp. This will take about three to five minutes per person.
- ❑ **A good light source** – Nits reflect ultraviolet light, so sources that contain ultraviolet rays, such as a Wood's light or natural light (near a window or outside) are the best. A Wood's lamp works very well since the nits become fluorescent and easier to see. If none of these light sources is available, a lamp with at least a 60-watt bulb can be used.
- ❑ **Magnifying glass or lamp (optional)** – A magnifying glass or lamp can be helpful when looking for nits and lice. It may be especially helpful if the examiner has difficulty focusing at close distances, wears bifocals or has any other visual problems.

- **Disposable tools (optional)** – Some examiners like to use coffee stirrers, blunted toothpicks or popsicle sticks to help them examine the hair. Two "sticks" are needed to lift and separate the hair so that the hair shafts can be inspected for nits and/or lice. New sticks must be used for each person being examined.
- **Vinyl or latex gloves (optional)** – Some examiners like to wear vinyl or latex gloves; however, the use of gloves is not necessary. New gloves must be used for each person being examined.
 - Some examiners like to use a combination method. A disposable tool to separate the hair is used by one hand, while a glove on the other hand holds the remainder of the hair away from strands being inspected. New sticks and gloves must be used for each person being examined.

The total head should be examined, but special attention should be given to the places where lice are most likely to lay their eggs. These areas include the hair directly over and behind the ears, near the crown and at the back of the neck. Each strand of hair needs to be checked. The head lice themselves will be hard to see since they move fast, but generally the nits can be seen.



It is important to be able to tell nits from other debris in the hair. Debris in the hair such as lint, hair spray particles, scales or dandruff will brush off or be blown away easily. The female louse produces a glue-like substance that firmly attaches the nit to the hair shaft. Nits cannot be washed off, brushed away or blown from the hair. In order to avoid mistaking artifacts for nits, attempt to pull the particle from the hair shaft. If it remains attached, suspect nits.

Improper identification of nits is a common problem, especially for new and/or inexperienced examiners. Although not possible in all situations, it is best to confirm the presence of nits by removing the strand of hair with the suspected nit on it and examine it under a microscope. It is easy to spot nits under a microscope; they have a distinctive cap on the head. When a nit has hatched, the cap is no longer intact. For inexperienced examiners, confirmation of infestation with a more experienced examiner or health care provider is recommended. Improper identification leads to unnecessary treatment, absence from child care, school or activities, and stress.

2. Use of a pediculicidal (head lice killing product) or alternative therapy:

- ❖ **Pediculicidal products** – There are many pediculicidal products available for the treatment of head lice. Most nonprescription pediculicidal products contain permethrin or pyrethrin (such as Nix or RID*). Prescription pediculicidal products contain lindane or malathion. For further information on pediculicidal products, contact your local public health unit, health care provider, clinic or pharmacy.



Important things to know about pediculicidal products:

- ❑ **Pediculicidal products are to be used for the treatment of head lice only. They should not be used as a routine shampoo.**
- ❑ Only people found to be infested with nits and/or head lice should be treated. It is **not** recommended to treat anyone who is not infested! These products do not prevent someone from getting head lice.
- ❑ Read and follow all manufacturers' recommendations and directions on the label. This is very important to ensure proper treatment. The product should never be used more often than recommended on the label directions. Remember, these products are not meant to be used as a daily routine shampoo. **All safety precautions and contraindications for use listed on the product label should be observed.** (Refer to safety precautions and contraindications for use on page 9.) Nonprescription pediculicidal products generally are safe and effective if used according to the manufacturers' directions.
- ❑ The pediculicidal products are for external use only. These products are harmful if swallowed or inhaled. If accidental ingestion does occur, contact poison control or your health care provider, clinic or hospital immediately.
- ❑ Daily inspections and nit removal must be continued for seven to 10 days after treatment. If lice and/or nits continue to be found after seven to 10 days, a second pediculicidal treatment may be recommended. (Read and follow all manufacturers' recommendations and directions on the label.) Daily inspections and nit removal should continue again for seven to 10 days. If there is still an infestation after the second treatment, contact your health care provider for recommendations for further care and treatment.

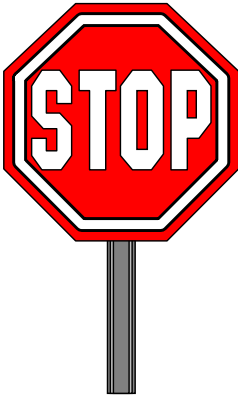
* The use of product names does not constitute endorsement. It is for identification purposes only.

- The scalp may continue to itch for several days after treatment. Tender scalp, stinging of the scalp or scalp irritation may be associated with treatment. Generally, these symptoms occur within the first 24 hours after treatment and last for about 24 hours.
- **No product is 100 percent effective getting rid of lice and their eggs.** Daily inspection and manual removal of lice and nits is necessary following the use of any pediculicidal product. (See pages 13 to 15 for a detailed description of how to manually remove lice and nits.)

Studies have shown that some treatment failures do occur with pediculicidal products. This may be due to:

- Misdiagnosis (the person really was not infested).
- Noncompliance (not following the treatment/product directions).
- A repeat infestation from an untreated infested person or from various sources in the environment.
- A resistance of the head lice to the ingredients in some pediculicidal products.

Do not use a pediculicidal product if:



- ❑ The person has a known sensitivity to any component in the product.
- ❑ The child is younger than age 2.
 - For infants and toddlers younger than 2, head lice and nits should be removed with a special comb or hand picked from the hair. (See pages 13 to 15 for detailed description of how to manually remove nits.)
- ❑ The person has an infestation of the eyebrows or eyelashes.
 - When these areas are infested, the person should be inspected for body lice and/or pubic lice. Consult your health care provider if infestation of lice occurs in these areas.

The following groups of people should consult their health care providers before treating themselves or another person:

- ❑ Individuals who have neurological conditions, such as seizure disorders, cerebral palsy, etc.
- ❑ Pregnant women and nursing mothers.
- ❑ Individuals who have acute or chronic skin and/or scalp conditions, dermatitis, psoriasis or open sores.
- ❑ Individuals who have cancer.
- ❑ Individuals who have asthma and/or allergies.
 - Pediculicidal products may cause breathing difficulty or an asthmatic episode in susceptible persons.
- ❑ Individuals who have an allergy and/or sensitivity to ragweed or chrysanthemums and roses.
 - Pediculicidal products may cause an allergic reaction in susceptible persons.

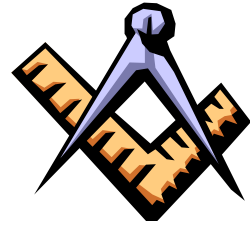


Also use caution when:

- ❑ The product contains lindane (such as the prescription product Kwell).
 - Products containing lindane should be used with extreme caution! Neurotoxic reactions have been reported as a result of the normal use of lindane shampoos.

Measures for safe use of a pediculicidal product:

- ❑ Keep pediculicidal products out of reach of children.
- ❑ Treatment of all children should be done or supervised by an adult. Do not leave children unattended while a pediculicidal product is on the hair.
- ❑ Timing is important. If the product is rinsed off too soon, lice and nits may not be killed. If left on too long, it causes unneeded exposure to the lice-killing chemicals. Remember to follow all manufacturers' recommendations and label directions.
- ❑ Many pediculicidal products contain ingredients that may cause eye irritation. Care should be taken in the use of these products to avoid contact with eyes. If accidental contact with eyes does occur, quickly wash/flush the eyes thoroughly with tap water. Consult your health care provider if eye irritation results.
- ❑ Avoid contact with mucous membranes, such as the lining of the nose or mouth.
- ❑ If you need to shampoo more than one individual and to avoid unnecessary exposure to the product, it is recommended to wear latex or vinyl gloves, changing gloves between individuals.
- ❑ Avoid contamination of food with these products.
- ❑ Upon completion of treatment, do not reuse empty container or bottle. Rinse container or bottle thoroughly, wrap with newspaper or paper towels and discard in waste basket.



Remember:

Read and follow all manufacturers' recommendations and directions on the labels. This is very important to ensure proper treatment. All safety precautions and contraindications for use listed on the product label should be observed. For further information about pediculicidal products, contact your local public health unit, health care provider, clinic or pharmacy.

- ❖ **Alternative therapies:** There are many other products that are marketed as effective treatments to get rid of head lice and nits. Many products are listed as “natural.” It is important to remember that “natural” does not always mean safe. It is advisable when choosing a product to confirm that it has been approved by the Federal Drug Administration (FDA) for use in the treatment of head lice. Products should also have a toll free telephone number on the package to call the company with any questions regarding proper use, possible side effects and what actions to take if side effects occur. Products also should list the active ingredient(s) so you can consult with a health care provider or pharmacist about the possibility of allergic reactions, possible side effects and contraindication for use of the product, if needed.

Home remedies have been around as long as head lice have. Examples of home remedies include olive oil, mineral oil, vaseline, mayonnaise and vinegar. The most common of these are the oil-based products. Oil-based products appear to work by clogging up the breathing pores of the head louse, thereby smothering it. It should be noted that these products are generally difficult to remove from the hair. Also, no scientific studies have been conducted that show cooking oils, mayonnaise, vinegar or other concoctions are effective head lice treatments.

Whatever product or therapy you choose, you must carefully follow all product or therapy recommendations and directions for use. **The use of any product or therapy does not eliminate the importance of nit removal.**

NEVER USE:



Treatment should never consist of toxic and/or flammable household products such as kerosene, gasoline, paint thinner, turpentine, pesticides intended for use on insects and/or bugs other than head lice, pesticides intended for use of animals, bleach or any other household cleaners.

Every year a few children are killed or seriously burned as a result of using these products.

Just a quick comment about head shaving and cutting hair:

Some frustrated parents may want to shave the child’s head to cure him or her of lice. While this method will work, it may be at a high emotional cost to the child and is **not** necessary. Others think that cutting a child’s hair reduces the chance of infestation. This is not true; however, shorter hair may make it easier to locate and remove lice and nits.

❖ **Procedure for treatment of an individual:**

- ❑ Ideally, before one household family member is treated, all should be inspected. All family members who show evidence of infestation should be treated at the same time. Treat only those who are infested!
- ❑ Remove individual's shirt. Cover shoulders and arms with a towel. To protect the eyes, cover with a washcloth.
- ❑ To confine the product to the head and scalp, have the individual lean over the sink. Do not treat in the bathtub or shower.
- ❑ Use the head lice treatment product you have chosen. Follow the manufacturers' directions exactly.
- ❑ Allow hair and scalp to dry in open air. Hot hair blowers or hair dryers may reduce the effectiveness of some lice treatment products. Remember to follow all manufacturers' recommendations and label directions.
- ❑ There is no one product that kills 100 percent of the nits. It is therefore important to remove all the nits following the treatment. This procedure is sometimes difficult and time consuming, but is very important to prevent reinfestation. (See pages 13 to 15 for a detailed description of how to manually remove nits.)
- ❑ Following the treatment, have the person put on clean clothing.
- ❑ Use regular shampoo only for the next seven to 10 days when washing hair. Conditioner or vinegar rinses may reduce the effectiveness of some lice treatment product's residual effect. Remember to follow all manufacturers' recommendations and label directions.
- ❑ Inspect and remove nits from hair daily for the next seven to 10 days. If lice and/or nits continue to be seen, a second treatment is recommended. Inspect hair and remove nits again daily for the next seven to 10 days. If you continue to see lice and/or nits, contact your health care provider for recommendations for further care and treatment.
- ❑ Cleaning of personal items and the environment should be done on the same day of treatment. (See pages 16-17.)

3. The manual removal of nits:

- ❑ It is not recommended to self-treat, which means removing nits from your own head, as this is very difficult to do.
- ❑ Wearing gloves during lice/nit removal is a personal choice; however, it is not necessary. There is very little chance of infestation, and gloves often make the job more difficult.
- ❑ Work in an area with good light and visibility, such as a lamp or the natural sunlight through a window or outdoors. It may be easier to see and remove nits during the day when there is more natural light.
- ❑ Hair should be clean, damp and untangled.
 - Use a grooming comb or hairbrush to remove tangles.
 - Slightly damp hair is best when removing the nits.
 - If the hair is too wet, the nit comb slips right through the wet hair and does not catch or comb out nits.
 - If combing is done on dry hair, individuals often complain of discomfort.
- ❑ Part the hair into sections and hold sections in place with rubber bands or hair clips.
 - It is important to separate the hair into small sections so you can more easily see lice and nits.
- ❑ Comb and/or pick out all the nits.
 - Some examiners recommend combing the hair slowly away from the scalp, inserting the comb as close to the scalp as possible and pulling the comb completely through the hair from root to the end. Pay special attention to the nits laid right next to the scalp.
 - Others advise holding the hair at the end and combing with a back motion towards the scalp. It is reported that this way is more likely to break the nit from the glue-like substance that attaches it to the hair shaft.
- ❑ Comb one section at a time, pulling the comb slowly through the hair several times in all directions.
 - Examine all sides of the hair shafts for nits.
 - Although using a nit comb removes most of the nits, sometimes you may need to remove a stubborn nit by pinching it between two fingernails.
 - If you are unable to remove a stubborn nit by combing or with your fingernails, you can simply cut off the hair shaft with a small scissors.
 - Check the section one last time to make sure it's clean, then pin it out of the way by curling it flat against the head. This will help you keep track of the sections you have already combed and those that still need combing.



- Whenever you comb out nits or lice, clean the comb under running water or dip it into a bowl of water. You also can clean the comb with a paper towel or tissue. Hold the comb up to the light to make sure it is completely clean before the next stroke.
 - Paper towels or tissue can be thrown into the garbage. Simply tie the garbage bag and remove from the house when finished.
 - If you dipped the comb into a bowl of water, flush the water down the toilet when finished.
 - If you cleaned the comb under running water, be sure the sink is completely clean when finished.

- After combing is complete, soak the lice comb in hot water (130 degrees F) for at least 10 minutes. Use an old toothbrush to clean the comb.

- Check the comb again to be sure all lice and/or nits are gone. The comb can now be used on another family member or is ready for the next combing.

- When fingernails are used to remove nits, they also should be cleaned frequently during and after the process. Wash with soap and water and use a nail brush.

- Hair should be inspected and nits removed at least once daily for seven to 10 days following the use of any head lice treatment product.

Head lice comb



There are many different nit-removal combs on the market. Often, nit combs are included in the packages of many head lice removal products. The comb must have an innertooth space smaller than the nits (0.5-0.8mm) to be effective. Combs that are light-colored allow for better visualization than dark-colored combs. Metal combs are sturdier and less apt to break than plastic combs. Well-designed combs that meet these requirements often can be bought at pet stores for less money.

The manual removal of lice and nits only (not using a head lice treatment product) is recommended for any one who has contraindications for use to a head lice treatment product. This process actually can be used by anyone. The National Pediculosis Association (NPA) advocates for this type of removal for everyone. Contact information for the NPA can be found on page 26.

Additional comments about removing nits:



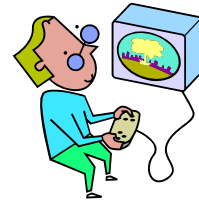
Removing nits is a very time-consuming but important process. Depending upon the texture and length of the hair, the process can take several hours. Here are some helpful tips to make the process go better:

- What a great opportunity to really talk with your child! Just think, when was the last time you had the chance to have this kind of concentrated, undisturbed time together?
- If you run out of things to talk about, try listening to a book on tape.



- Watching a favorite video, television program or playing video games are good options. (Books on tape sometimes work better because with videos, TV or video games, your child may want to look up to see the TV screen when you need his or her head down.)

- When children get tired, let them sit at the counter and rest their heads on their arms. Many children may actually sleep through long periods of nit combing this way.



Remember, head lice can infest all people, regardless of age, race, social-economic status or hygiene practices, so don't place blame on anyone.

Also remember, head lice are not life threatening, just annoying! Keep things in perspective.

4. Cleaning of personal items and the environment:

When it comes to the cleaning of personal articles and the environment, it is important to remember the following:

- Head lice generally cannot survive more than 24 to 36 hours off the human host at normal room temperatures.
- The viable nits (eggs that have the ability to hatch) attached to hairs that become separated or detached from the human host may remain viable for between 10 and 14 days. However, once the nits hatch, the lice must find a human host within hours to survive. Also, conditions must be favorable for the nits to hatch, such as being in warm environment.
- You do not need to spend a lot of money for cleaning supplies.
- Even though cleaning the environment is important, excessive cleaning such as scrubbing walls is not necessary. Concentrate on heads, where head lice live and feed. Daily head inspections and nit removal will go much farther in the management of head lice.

Family combs and brushes:

- ❑ Soak in hot water (130°F) for at least 10 minutes. (Heat may damage some plastic combs and brushes.)
- ❑ Make sure every member of the household has his or her own comb or brush. Tell your child not to share these items with others.



Articles of clothing and bedding:



- ❑ To kill lice and nits, machine-wash all washable clothing and bed linens that the infested person has worn or slept on during the two days before treatment. Use the hot water (130°F) cycle. Dry laundry using high heat for at least 20 minutes. It is important that adequate time be allowed between wash loads to let the water heater achieve the appropriate temperature.
 - Clothes washing does not need to be repeated daily and is only necessary when an individual has been treated or if there is reinfestation.
- ❑ Articles that cannot be machine washed, such as stuffed animals, pillows or comforters, can be vacuumed, dry cleaned or stored in sealed plastic bags for a period of 10 to 14 days. Remember to keep plastic bags out of the reach of young children, as the bags may pose a choking hazard.
- **SAFETY PRECAUTION** – Many pediatricians recommend that home hot water heaters be set to a temperature of no more than 120° F to help reduce scalding burn accidents to children. If the hot water heater is increased to the 130° F level for the purpose of disinfecting articles potentially infested with head lice, remember to turn down the hot water heater after the washing has been completed.

Treatment of the environment:

- Floors, carpets, upholstered furniture, pillows and mattresses should be vacuumed to pick up any hairs that may have living lice or nits attached to them.



- Don't forget about your family car. Think of all those heads pressed up against the upholstery. You can vacuum your car seats or run a lint remover (the roller kind with the sticky tape) over the seats.
- What about airplanes, trains and movie theater seats? Bring along a lint remover when traveling or going to the movies. An ounce of prevention goes a long way!
- **SAFETY PRECAUTION** – The use of pediculicidal (or pesticidal) lice or insecticidal sprays is **NOT** recommended and is strongly discouraged, as it may be harmful to family members and pets.

5. Daily checks of the hair and scalp:

- ❑ Inspect all household members daily, those treated and those not treated, for at least seven to 10 days following the treatment of any individual in the household.
- ❑ For those individuals who were treated, hair should be inspected and nits removed at least once daily for seven to 10 days.
- ❑ Treat anyone who was not treated previously, but who is found to be infested through daily inspections.





Recommendations for Schools and Child Care

Develop a written head lice control policy. **There is no state law that governs the management of head lice control in school or child care.** Points that need to be considered and addressed include:

- Screening procedures
- Parent/guardian notification
- Exclusion protocol
- Readmission criteria
- Definition of and district response to excessive absences.

Written policies and procedures regarding specific responsibilities and recommendations will facilitate efficient and consistent implementation by all schools, child care centers, etc. This aids in ensuring that all children are treated in a fair and equitable manner.

Seek input from your local public health unit, clinics/health care providers, child care health consultants, child care providers and school personnel in the development of a head lice control policy. (To locate the child care health consultant in your area, contact your local Child Care Resource and Referral agency.)

The “No-Nit” Standard

The National Pediculosis Association (NPA) recommends the establishment of the “No-Nit” standard. This standard calls for the exclusion of a child from school, camp or a child care setting until all head lice, lice eggs (nits) and egg cases have been removed. It must be mentioned, however, that this standard is controversial in professional literature. Several medical professions/organizations, such as the American Academy of Pediatrics, no longer endorse “no-nit” policies. School administrators and child care directors/providers should consider carefully both the advantages and disadvantages of establishing a “no-nit” policy.

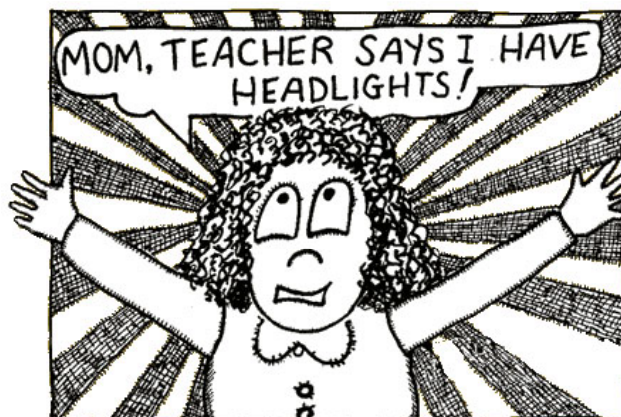
Advantages of a “No-Nit” policy include:

- ❑ It helps parents understand and assume their responsibility for head lice control.
- ❑ It forces parents/caregivers to treat their child promptly and to remove all nits, thus preventing self-reinfestation and transmission to others.
- ❑ It stresses manual removal of head lice and nits. This decreases or eliminates the need for retreatment, thus limiting the exposure of people to head lice treatment products.
- ❑ Uninfested children will be safeguarded, while infested children are cared for with sensitivity.
- ❑ It makes the task of the staff of the school or child care facility less subjective. If nits are present upon screening or rescreening, the child is dismissed for follow-up treatment at home.

Disadvantages of a “No-Nit” policy:

- ❑ “No-Nit” policies can be carried out too rigidly.
- ❑ Students often are excluded from school due to misidentification of nits or the presence of nonviable nits.
- ❑ Mandatory exclusion may hinder academic performance and increase social stigma.
- ❑ May lead to the overuse of lice treatment products as parents/caregivers try to eliminate lice and nits.
- ❑ No other minor medical condition excludes children from school or child care, including upper respiratory infections, which are often much more contagious.

Each school or child care facility must decide for itself what components will go into a head lice control policy. Once again, seek input from your local public health unit, local clinics/health care providers, child care health consultants, child care providers, and school personnel. (To locate the child care health consultant in your area, contact your local Child Care Resource and Referral agency.)



The main components of the “No-Nit” standard:

Proactive community education:

- Provide the community with a baseline understanding of head lice, modes of transmission and the importance of safe and effective treatment and control measures.

Routine screening and early detection:

- Vigilant screening of children for head lice and nits plays a pivotal role in head lice management. Scheduled and announced group screenings encourages parental compliance and promotes community cooperation and individual accountability.
 - Opponents of “no-nit” policies do not advocate for group screenings. Children with symptoms, however, should be referred discreetly to the school nurse or other appropriately trained staff for an individual screening. Rationale: Mass screenings may be disruptive and increase the potential for lice phobia and use of pediculicidal products.

Temporary dismissal of children with head lice and/or nits:

- Children found to have a head lice/nit infestation should be excluded from school/child care until treatment has been completed and all head lice, lice eggs (nits) and egg cases have been removed. Reasonable measures should be taken to help ensure that infested children do not join the group setting. However, careful consideration should be given to children whose families lack transportation or who, for some reason, are unable to pick up their children from school.
 - Opponents of “no-nit” policies do not advocate for exclusion from the group setting if parents cannot pick up their child immediately. Rationale: No other minor medical condition excludes children from the classroom or group setting. Oftentimes, children with much more contagious infections, such as upper respiratory infections, are routinely allowed to remain in classes.
- Infested children should be sent home with written information relating to the treatment of head lice, nit removal and treatment of the environment. (See fact sheets at end of manual.) Informing children and parents about head lice is a very sensitive issue. Children and parents can become upset and embarrassed about head lice. They need to be reassured that head lice are a common problem and are not related to poor hygiene or to poor parenting abilities.

Inform all parents of a case of head lice:

- When a case of head lice has been identified in a classroom, a written notification should go out to all parents.
 - Opponents of “no-nit” policies do not advocate for classroom or school-wide notifications. Rationale: Such notifications may increase public alarm, disrupt school productivity, strain school resources and bring undue attention to those children with head lice infestations.

Readmission criteria:

- ❑ Upon re-entry to school/child care, the child should be inspected carefully to ensure all nits have been removed or should present a note from a health care provider that he or she is “nit-free.” The student should be inspected again in 10 days.
 - **No child should be excluded from school or child care for long periods of time because of head lice. In general, if a child is sent home more than twice, the information being supplied to the family is not adequate or the family is having difficulty with the treatment and/or cleaning process. Frequent infestations and excessive absences may be signs of other problems. Get the family some support by involving your local public health unit or social services.**

Additional recommendations:

- ❑ Count the student missing school because of a head lice/nit infestation as an excused absence.
- ❑ Inform and educate the community about your head lice control policy through utilization of local media, public notices, etc. Establishing consistent guidelines and educating the public about procedures before outbreaks occur help to minimize inappropriate responses.
- ❑ Designate two or more school/child care personnel or parent volunteers to inspect and reinspect students for head lice and nits. These designated monitors must be trained to identify lice and nits. Do not exclude children from school based upon the diagnosis of an untrained or inexperienced person. Talk to your school nurse or local public health unit about training opportunities.
- ❑ Instruct parents to examine their children frequently.
- ❑ Steps should be taken to ensure that the clothing of one person is not kept in contact with clothing of another person. This may be accomplished in any of several ways:
 - Assign individual lockers or cubbies.
 - Assign individual wall hooks, 12 inches or more apart.
 - Permit students to hang their short coats on the back of their seats and/or their long coats on wall hooks spaced so that the coats do not touch.
 - Store caps and scarves separately or let each student keep them at his/her desk, or tuck them into sleeves or pockets of coats or into backpacks.
 - If individual lockers or wall hooks are not possible, have students store outer clothing in separate plastic bags. This should not be done if outer clothing is wet.
- ❑ Shared audio headsets, helmets and other items that come into intimate contact with the head/hair of more than one student should be cleaned with a damp cloth after each student's use.
- ❑ Dress-up clothing (costumes) use should be avoided during head lice outbreaks.

- ❑ Discourage use of shared personal items, especially the use of combs during school photographic sessions or after gym or sporting activities.
- ❑ Frequently vacuum carpeted or upholstered areas and wipe down any sports or nap mats with a damp cloth.
- ❑ For young children in school or child care who nap, bedding/pillows should not be shared.
- ❑ Notify bus drivers of a head lice outbreak so they can wipe school bus seats with a damp cloth. If cars or vans are used for transportation, don't forget to vacuum upholstered seats.
- ❑ Any lice or nits that might detach in a swimming pool most likely will be removed by the pool filter or will die before they have a chance to attach to another person. Closing a swimming pool because of head lice is not necessary.
- ❑ Be sensitive when dealing with children and families who have head lice. Although not dangerous, head lice can be emotionally traumatic and cause a lot of frustration.

SAFETY PRECAUTION – The use of insecticides, lice sprays or environmental fumigants of any kind to fog the school or child care room, or to treat walls, floors, desks and carpets are of no value in the control of head lice. These products are more harmful to people and pets than they are effective. The Centers for Disease Control and Prevention, the American Academy of Pediatrics and the National Pediculosis Association strongly discourage the use of these spray products for the control of head lice.



Educational Materials

Audio Visual Materials

1. HEAD LICE – AN ITCHY PROBLEM (1/2" VHS)

Recommended for grades K-6. 14:11 minutes (This video includes the video script, instructional goals, classroom activities and discussion questions.)

Controlling head lice requires the cooperation of the students. This live-action video is designed to give them the information they need to guard themselves against head lice. It explains what head lice are, how they are transmitted from one person to another and why it is important to detect and treat head lice as early as possible. It also provides reassurance that this is a problem with a solution. Head lice are no fun, but working together with parents and health educators, students can play an active role in maintaining healthy scalps.

2. HEAD LICE ... A HEALTHY REACTION (1/2" VHS)

Recommended for parents, school or child care personnel and health care professionals. 17 minutes.

This video shows how to detect the presence of head lice and make a comprehensive diagnosis of the problem. It also gives a point-by-point explanation of effective treatment and precautions. Endorses the “no-nit” standard.

3. LICE, SOME THINGS SHOULDN'T BE SHARED (1/2" VHS)

Recommended for parents, school or child care personnel and health care professionals. 12 minutes.

A National Pediculosis Association (NPA) informational video about head lice. This video provides step-by-step head lice management guidelines. Endorses the “no-nit” standard.

4. REMOVING HEAD LICE SAFELY (1/2" VHS)

Recommended for parents. 8 minutes.

This video focuses on the importance of “combing” for the removal of lice and nits. Also explains what head lice are, how they are transmitted and discusses prevention measures.

Audio visual materials are available on free loan by calling or submitting a written request to:

North Dakota Department of Health
Attn: Resource Library
Division of Emergency Health Services
600 E. Boulevard Ave., Dept. 301
Bismarck, N.D. 58505-0200
1.800.280.5512
701.328.2368





References/Resources

American Academy of Pediatrics. Pediculosis Capitis. In: Pickering L.K. ed. 2000 Red Book: Report of the Committee on Infections Diseases. 25th ed. Elk Grove Village, IL: American Academy of Pediatrics.; 2000: pp. 427-429.

American Academy of Pediatrics
141 Northwest Point Boulevard
Elks Grove, IL 60007-1098
847.434.4000
www.aap.org

Centers for Disease Control and Prevention. Fact Sheet: Treating Head Lice. May 2001.
www.cdc.gov/ncidod/dpd/parasites/headlice/factsht_head-lice_treating.htm

Centers for Disease Control and Prevention
1600 Clifton Road
Atlanta, GA 30333
404.639.3311
1.800.311.3435
www.cdc.gov

Judith Vessey Ph. D, RN, FAAN, Current Concepts in Pediculosis Management (2000),
National Association of School Nurses.

National Association of School Nurses (NASN)
1416 Park Street, Suite A
Castle Rock, CO 80104
Toll free 1.866.627.6767
303.663.2329
www.nasn.org

National Pediculosis Association
P. O. Box 610189
Newton, MA 02461
781.449.NITS (6487)
www.headlice.org



Fact Sheets

“Head Lice (Pediculosis)”

"Quick Guide for Removing Head Lice"

These fact sheets may be reproduced or are available free, in quantity, by calling or submitting a written request to:

North Dakota Department of Health
Division of Maternal and Child Health
600 E. Boulevard Ave., Dept. 301
Bismarck, N.D. 58505-0200
1.800.472.2286 (press 1)
701.328-2493