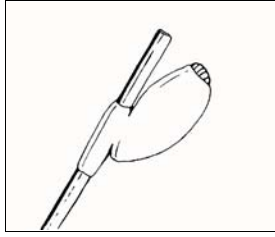
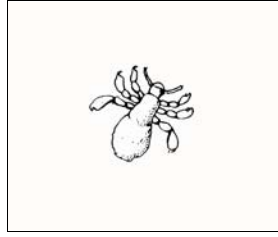


A GUIDE TO HEAD LICE TREATMENT AND PREVENTION

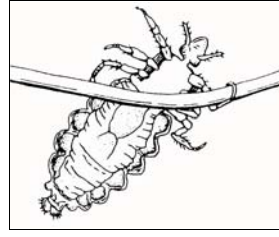
Head lice are very small, tan-colored insects about the size of a sesame seed which live only on human heads. They live and lay eggs (nits) close to the scalp. The nits are about the size of the eye of a needle, oval shaped, and grey, white, brown, or tan in color. Head lice depend on human blood for their survival.



Nits hatch into nymphs (immature adults) in 7-10 days.



Nymphs reach adulthood and produce nits in 8-10 days.



Adults live for 30 days. They lay 3-4 nits per day.

How are head lice spread?

Lice are passed by direct contact with an infested person, or shared personal or household items. Lice do not spread to or from pets. Lice do not jump or fly. They crawl and can fall off the head. Lice do not live longer than 48 hours off the head. They only lay nits on hair shafts attached to the head. Nits that hatch after they have fallen off the head will die quickly without a blood meal.

Prevention of head lice

Children should not share hair care items, towels, clothing, hats, sports headgear or head phones. Avoid sharing lockers. If jackets and hats must be hung next to each other, control the spread of lice by hanging the clothing inside a plastic bag. Check children's heads often so that new cases can be treated promptly.

What are the symptoms of head lice?

Tiny red blood spots (louse bite marks) on the scalp are a sign of lice. These bites cause itching of the scalp and neck. A magnifying glass and a bright light will help you spot lice or nits.

What to do if a family member gets head lice?

There are several ways to get rid of lice, but all of them follow the same basic steps:

1. Kill the lice
2. Remove all nits
3. Remove lice from the environment
4. Follow-up and repeat as needed

HEAD LICE TREATMENT SEVEN OPTIONS TO KILL LICE

Use a lice treatment of your choice. There are a variety of treatment products which are available at the drugstore or grocery store. Check every member of the family when one member has head lice. All family members with lice or nits must be treated, preferably on the same day.



Suffocating Agents

Mayonnaise
Vegetable Oil
Petrolatum Gel

Chemical Agents

Over-the-Counter Creme Rinse
Prescription Lotion
Over-the-Counter Shampoo
Prescription Shampoo (Warning!)

DO NOT USE

The following are not recommended for treatment of lice:

- ✗ Antibiotics (may increase antibiotic resistance)
- ✗ Elimite (not a recommended use)
- ✗ Kerosene or any other flammable liquid (may cause severe burns)
- ✗ Insect killing products [e.g. Raid®] (toxic to children)

Helpful Hints:

- ✓ Use a different towel for each step of treatment and for each person treated. Wash and dry all towels after use.
- ✓ Hair cuts help get rid of nits.

SUFFOCATING AGENTS

Mayonnaise Treatment (100% real mayonnaise) Oil Treatment (Vegetable, olive, mineral) Petrolatum Gel Treatment (Vaseline®)*

1. Choose one of the above treatment options.
2. Apply product directly to the head, coating the hair and scalp thickly.
3. Pile hair on the head.
4. Cover with a close fitting shower cap or plastic wrap. Leave on for at least 3 hours.
5. Remove the shower cap and wash hair to remove most of the product.
 - ✓ *Baby Oil* may be used to help remove the *petrolatum gel*.
 - ✓ The *Oil treatment* may be left in throughout the nit removal process
6. **Remove all nits as discussed under the Nit Removal Section.**
7. Wash hair thoroughly with shampoo to remove any remaining product.
8. Check for and pick out any remaining nits.
9. Because there are NO HARMFUL CHEMICALS, treatment can be repeated as often as needed.

CHEMICAL AGENTS

Important Cautions:

- ✓ Please remember, all chemical agents are pesticides and may be harmful or toxic if misused.
- ✓ Chemical treatments should not be used on children under two years of age.
- ✓ Consult your physician before using chemical treatments with people who are pregnant, breast-feeding, or have a pre-existing medical condition.
- ✓ Do not use chemical treatments if there are sores or open lesions on the scalp.
- ✓ Never use chemical treatments near the eyes, even if there are lice or nits in the eyebrows or eyelashes.
- ✓ After chemical treatment, it may take up to 24 hours for lice to die. If live lice are still present two days after treating, switch to a suffocating agent to kill the lice.
- ✓ Do not use household lice sprays or any other insecticidal sprays! They are costly, unnecessarily increase exposure to pesticides, and are ineffective.

Over-the-Counter Lice Treatment Creme Rinse (e.g. Nix®)

1. Pre-treat hair with a white vinegar and water solution prior to shampooing. *See "Using Nit Loosening Products"*
2. Wash the hair using any shampoo that does not contain conditioners.
3. Towel dry the hair. This product can be applied to damp hair.
4. Apply single dose bottle directly to the hair. Work thoroughly into the hair from roots to ends until all the hair is treated. Leave it on for ten minutes.
5. Rinse well over sink or tub and towel dry hair. (Do NOT shower.)
6. **Remove all nits as discussed under the Nit Removal Section.**
7. A second treatment may be needed in seven days to kill any new lice. *Do not retreat more than once with this product or other chemical products.*
8. Do not use hair conditioners, detanglers, hair spray or gel for at least a week after treatment. If you wash the hair during this time use a shampoo that does not contain conditioners.

Prescription Lotion (malathion, Ovide™)*

If you and your doctor decide to use this product, be aware that there is controversy about the instructions to leave the product on the head for 8-12 hours. Research has shown that malathion kills lice within 20 minutes. Longer exposures increase the risk of harm. The drug is not recommended for use with infants. This is an alcohol based lotion that is flammable, may cause stinging, and should be kept out of the eyes and away from heat sources.

1. Sprinkle Ovide™ Lotion on DRY hair and rub gently until the scalp is thoroughly moistened. Pay special attention to the back of the head and neck.
2. Allow to air dry. Leave uncovered.
3. After 20 minutes, rinse product out and wash hair with ordinary shampoo.
4. Rinse hair.
5. **Remove all nits as discussed under the Nit Removal Section.**
6. If required, repeat with a second treatment in 7 to 9 days.

Over-the-Counter Lice Treatment Shampoo (e.g. Rid®)

A-200®, Pronto®, other pyrethrins)*

1. Wash hair with any shampoo that does not contain conditioners.
2. Completely dry hair. This product must be applied to dry hair.
3. Apply single dose bottle directly to the hair, without adding water. Work thoroughly into the hair from roots to ends until all the hair is treated. Leave it on the hair for ten minutes.
4. Add enough warm water to form a lather and shampoo as usual.
5. Rinse well over sink or tub and towel dry hair. (Do NOT shower.)
6. Use a Nit Loosening Agent prior to removing nits.
7. **Remove all nits as discussed under the Nit Removal Section.**
8. A second treatment must be done in seven days to kill any new lice. *Do not retreat more than once with this product or other chemical products.*
9. Do not use hair conditioners, detanglers, hair spray or gel for at least a week after treatment. If you wash the hair during this time use a shampoo that does not contain conditioners.

Prescription Shampoo (e.g. Kwell®, Lindane Shampoo, USP 1%)*

WARNING: This chemical agent is the least effective at killing lice and nits, and is dangerous to humans. It penetrates human skin and can be toxic to the brain and nervous system. Incorrect use has caused seizures and death. Pregnant women, breast feeding mothers, and infants under age two should NOT use it. If you and your doctor choose to use this product, follow directions on the label carefully. Nits must be removed after treatment. Do not use an oil based nit removal method.

Selsun Blue® Treatment *

1. Apply original Selsun Blue® to dry hair and rub into the hair and scalp. Apply until head is heavily coated.
2. Place a plastic cap over the head.
3. Adults can leave the shampoo and cap on for one hour.
4. Elementary school age children can leave the shampoo and cap on for one hour.
5. Toddlers can leave the shampoo on for 30 minutes.
6. Rinse hair completely and remove visible nits.

*There are several types of Selsun Blue®. The recommendation is to use the original Selsun Blue.

NIT REMOVAL

Some lice eggs (nits) survive head lice treatments. The only way to be sure that lice won't come back is to **pick out all nits**. Nits left on the hair can hatch and cause a new case of head lice. Since nits are very small and hard to see, **continue to check for nits every day for several weeks**. It is easy to miss a few nits!

Getting Started

- ✓ Find a good metal nit comb (e.g. Lice Meister™)*. Some people prefer to slide nits off the hair shafts using their fingernails, or to cut nits out using safety scissors.
- ✓ Gather a large supply of hair clips to use for pinning up hair.
- ✓ Choose a comfortable area with strong overhead lighting or bright sunlight. You may also want to have a magnifying glass handy.
- ✓ Have your child choose a TV program or a videotape to help make the time more relaxing and enjoyable.



Finding The Nits

- ✓ Nits are oval-shaped and grey, white, brown or tan in color. They are as small as the eye of a needle and glued at an angle to the side of the hair shaft.
- ✓ Nits can be cemented anywhere on the hair shaft, but are usually close to the scalp.
- ✓ Expect to see larger numbers of nits the nape of the neck, and around the ears and crown.

Using Nit Loosening Products

- ✓ Suffocating treatments loosen nits naturally.
- ✓ Chemical treatment methods do not loosen nits, and using a nit loosening agent may speed nit removal.
- ✓ A mixture of white vinegar and water or a commercial nit removal product can be used for this purpose.

Vinegar/water treatment instructions

1. Mix three (3) cups of white vinegar and three (3) cups of water (1:1 mixture).
2. Soak the hair with mixture, and then wrap the hair in a damp towel soaked in the same mixture for 30 to 60 minutes.
3. Remove all nits.
4. Rinse hair.

Combing Out The Nits

- ✓ Divide and fasten the hair into small (one inch) sections, pinning each section together using hair pins.
- ✓ Using a nit comb, go through each hair section, passing the comb from the scalp to the ends of the hair.
 - ✓ Look closely for nits and live lice on the comb. Remove any lice or nits from the comb as you go.
 - ✓ Dip the comb into a cup of water, or use a paper towel, an old toothbrush, an index card, or unwaxed dental floss to clean the comb.
 - ✓ Comb each section until completely free of nits, checking thin sections of hair for any you may have missed.
 - ✓ Pin back clean sections of hair as you go. Move on, section by section, until all nits are removed.



Clean Up

- ✓ Soak nit comb, hair combs, brushes, hair pins in very hot water (130° F) for 15 minutes.
- ✓ Wash hands and clean under nails thoroughly.

Follow Up

- ✓ A few lice or nits will probably be missed. Check every day until all are removed, in order to prevent a new lice infestation.
- ✓ If 6 or more nits are found during daily head checks, lice may still be active on the head. Kill the lice using one of the suffocating treatment methods, and repeat the combing-out process.

REMOVE LICE FROM THE ENVIRONMENT

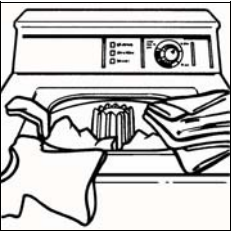
Lice do not survive off the human head for more than 48 hours. Cleaning activities are best done on the same day of treatment.

For upholstered furniture and car seats used by person with lice:

- ✓ vacuum thoroughly

For recently used items, including bedding, caps, coats, backpacks, headphones, and all hair care items:

- ✓ place in a plastic bag for at least 48 hours OR
- ✓ wash in hot (130°F) water OR
- ✓ dry in hot dryer for 20 minutes OR
- ✓ place in freezing temperatures for 24 hours



DO NOT USE

- ✗ household lice killing sprays
- ✗ any insect killing sprays

FOLLOW-UP AND REPEAT AS NEEDED

Success in lice treatment depends on daily checking to be sure that all lice and nits are gone. Suffocating treatments and nit removal are harmless and can be repeated as often as desired. If no new lice or nits are seen for three weeks, most likely the lice are gone for good!

* Brand names are examples only. We do not endorse any product.

If you have any further questions, you can call your school nurse, family physician, or the Washington County Department of Public Health and Environment at 651-430-6655 (TTY 651-439-6246).

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