



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.



Stages of a louse: nit, nymph, and adult.



Nits hatch in 7-10 days. They start producing nits in 8-10 days



Size



Adult male, female and nit. Adults live for 30 days and lay 3-4 nits a 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?

Head lice cause itching of the scalp and neck. The nits are glued to the hairs within ½ in from the scalp, often found at the back of the head and behind the ears. Tiny red blood spots (louse bite marks) on the scalp are a sign of lice. These bites cause itching of the scalp and neck. Nits should not be confused with dandruff. Dandruff can easily be flicked off the hair; nits are glued firmly to an individual hair. A magnifying glass and a bright light will help you spot lice or nits. Live lice move very quickly through hair which makes them hard to see.

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 - Options To Kill Lice

Use a lice treatment of your choice. A variety of treatment products 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.

Treatments work either by suffocating or chemical destruction.

Chemical Agents

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

Suffocating Agents

- Mayonnaise
- Vegetable Oil
- Petrolatum Jelly

*****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. (see clean up section)
- Hair cuts can help get rid of nits.

Chemical Agents

Over the counter lice killing products do not kill 100% of all viable nits, and there have been reports of treatment failure. A second treatment 7-10 days after the first treatment is recommended to kill newly hatched head lice. Therefore, even when using over the counter lice killing products, regular head checks and nit removal is a **MUST!**

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.
- Do not use "just in case"
- Do not use more often than recommended
- 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™)*

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, de-tanglers, 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.

Lice Free – for external use ONLY- how to use correctly

1. Shake well.
2. Do **NOT** wet or shampoo hair before using this product
3. Keep out of eyes! Do **NOT** apply to eyebrows or eyelashes.
4. Apply product to dry hair and entire scalp, starting at the nape of the neck and behind ears and work forward.
5. Put plastic cap on head and leave on for at least 1 hour. For best results stay in a warm room. Thoroughly saturate all hair and scalp. To be effective, all lice and nits must come in full contact with this product.
6. While waiting for the hour to go by, **vacuum** all floors, upholstered chairs, car seats, pillows, and favorite stuffed toys.
7. **DRY** all bedding, clothes worn recently (up to 3 days), towels, and backpacks for at least 20 minutes on the hottest setting on your dryer.
8. With product **STILL** in the hair, remove plastic cap and comb out all dead lice and nits with enclosed nit comb. Rinse comb out under running water.
9. Once all lice and nits are combed out, rinse hair thoroughly with warm, running water.
10. Thoroughly inspect and comb hair and scalp a second time to assure complete removal of all lice and nits.
11. A second treatment **SHOULD** be done in 7-10 days to kill any newly hatched lice.

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.

Suffocating Agents

Mayonnaise Treatment (e.g. 100% real mayonnaise)

In addition, you will need:

Plastic bag or shower cap
Hair clips or scotch tape
Regular mayonnaise

Treatment Steps

1. Use 100% real mayonnaise. Do not use light, low fat, fat free or even salad dressings.
2. Apply generously to hair, making sure the hair and scalp are saturated.
3. Pile hair on head, if needed, and cover with a close-fitting shower cap OR cut plastic bag and wrap around head like a turban. Use scotch tape or hair clips to keep on the head. Leave cap or bag on for as long as possible (at least 4 hours BUT works best for 8+hours).
4. Remove the shower cap and wash hair lightly to get out most of the mayonnaise.
5. Towel dry the hair
6. Remove all nits as discussed under the Nit Removal Section below.
7. Wash hair thoroughly with shampoo and pick out any remaining nits.
8. Keep checking and removing nits every day.
9. Repeat treatment every day or every other day for 2 weeks.

Oil Treatment (e.g. vegetable oil, olive oil, mineral oil)

In addition you will need:

Shower cap OR plastic bag
Hair clips or scotch tape
Vegetable, olive or mineral oil

Treatment Steps

1. Part hair and apply directly to head making sure the hair and scalp are saturated.
2. Pile hair on head, if needed, and cover with a close-fitting shower cap OR cut plastic bag and wrap around head like a turban. Use scotch tape or hair clips to keep on the head. Leave cap or bag on for as long as possible (at least 4 hours BUT works best for 8+hours).
3. Remove all nits as discussed under the Nit Removal Section below.
4. Wash hair thoroughly with shampoo and pick out any remaining nits.
5. Keep checking and removing nits every day.
6. Repeat treatment every day or every other day for 2 weeks.

Petrolatum Jelly Treatment (e.g. Vaseline®)

In addition you will need:

Shower cap or plastic bag
Hair clips or scotch tape
Baby oil, Palmolive® dish soap OR Dawn® dish soap
Petrolatum gel (e.g. Vaseline)

Treatment Steps

1. Apply petrolatum jelly generously to the hair, making sure the hair and scalp are saturated (approximately two ounces should be sufficient).
2. Pile hair on head, if needed, and cover with a close-fitting shower cap OR cut plastic bag and wrap around head like a turban. Use scotch tape or hair clips to keep on the head. Leave cap or bag on for as long as possible (at least 4 hours BUT works best for 8+hours).
3. Remove the shower cap and rinse hair with baby oil or dish soap to get out most of the petrolatum.
4. Wash hair with shampoo to remove most of the remaining petrolatum gel.
5. Remove all nits as discussed under the Nit Removal Section below.
6. Keep checking and removing nits every day.
7. Repeat treatment every day or every other day for 2 weeks.

Nit Removal-The key to successful head lice treatment

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, (these can give a false sense of security and may not work well)
- Some people prefer to slide nits off the hair shafts using their fingernails, or to cut nits out using safety scissors or finger nail clipper on the individual hair.
- 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 un-waxed 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.
- 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.
- Vacuum area 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/Clean up

Lice do not survive off the human head for more than 48 hours. Cleaning activities are best done on the same day as treatment. Remember, lice do not fly or jump. Lice do not spread to or from pets.

1. Vacuum thoroughly

Upholstered furniture
Car seats used by person with lice
Carpets and rugs
Floors
Pillows
Seats in the car
Favorite stuffed toys

2. Place in hot dryer for at least 20 minutes

Clothes worn recently (up to 3 days)
Backpacks
Bed sheets and blankets
Towels
Coats, caps and scarves (if worn in last week)

3. AFTER drying clothes, towels, etc.

Wash them in hot (130F) or
Wait for the water to return to 130F between loads or
Go to Laundromat if water is not hot enough

4. Bag

Any items that cannot be washed, dried or vacuumed in a sealed plastic bag for 2 weeks.
Please place bags out of children's reach.

DO NOT USE

**Household Lice Killing Sprays
Any Insecticidal Sprays**

PREVENTION

- Avoid putting heads together with other children, including "reading time" on pillows at school.
- Do not share hair brushes, combs, barrettes, hair ribbons or other items put on the head.
- Do not share or borrow hats, batting helmets or scarves.
- Do not share clothing, pillows, bedding or sleeping bags.
- Hang hats and coats separate from others, not on top of one another.
- Wash any clothing retrieved from lost and found before wearing.
- Check your child's head frequently especially after being alerted by the school of head lice.
- Provide each member of the family with personal towels and do not share.

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 Wright County Public Health at 763-682-7400.