



HEAD LICE AT SCHOOL AND HOME

The school nurse is the key facilitator of successful lice eradication and prevention programs. Nurses most accurately diagnose; nurses most accurately should provide educational information and support to families; nurses should advise administration with specifics. Our job is to educate and re-educate the families about appropriate and effective treatment, and treatment compliance.

- Those that advocate no-nit policies say removal of all nits is necessary because*
- *Prevents self-reinfestation and transmission to others*
 - *Decreases or eliminates the need for re-treatment, thus limiting the exposure of individuals to pesticides*
 - *Eliminates diagnostic confusion*
 - *Encourages parents to inspect their children often*
 - *Enhances uninterrupted class time for the majority of children and prevents lost days at work for parents.*

- We do not recommend no-nit policies because*
- *Head lice are often misdiagnosed*
 - *Students sent home miss valuable in-school instruction*
 - *Removal of students for lice infestation can lead to teasing/social stigma*
 - *They inflate the risks associated with lice infestations, fearing lice more than a common cold*
 - *No-nit policies lead to over-use of pediculicides*
 - *Our professional organizations do not advocate no nit (NASN, AAP)*
 - *This approach requires considerable manpower.*

In recommending against no-nit policies in schools, we must be prepared to do some aggressive education of parents and staff. The keys to effective head lice eradication are:

- *Preparedness*
- *Education*
- *Compliance*
- *Persistence and Patience*

Overall lice management program

A lice management program is an extremely time consuming and very labor intensive process.

Visual inspection to ensure that the child is currently infested with live lice (empty egg casing or 'nits' can remain on hair shaft long after true infestation).

Use of a pediculicide knowing that treatment failures are common with some products due to emergence of resistant strains

Manual removal of nits using a comb designed for this purpose and/or individual removal with tweezers followed by close examination of the hair and scalp. Combing is



not recommended as a first-line delousing method, but definitely a necessary adjunct to treatment. Combing daily for two weeks often is recommended.

Recommendation for adults: Evaluation and treatment of sexual contacts when adult has lice

All recently worn clothing, underwear, pajamas, used sheets, pillow cases, and towels should be washed in very hot water or dry-cleaned.

Families choosing to use a product should be instructed on proper use, especially the amount to apply, how long to leave shampoo on, whether to apply to dry or wet hair, the need to avoid retreatment. Parents should know that itching may occur after the successful killing of lice and repeat treatment may not be necessary. This means you must read the boxes to know what to say. Some products do not recommend retreatment automatically in 5 – 7 days.

Treatment of choice must also include towel drying and manual removal of nits using a nit comb or tweezers, and washing of all recently worn clothing, etc.

When sending a child home without giving parental education and support on treatment, we are vague in our expectations and we shouldn't be. Families seek advice from a variety of places. School health expectations are not stated. We are not doing our part in the total program. We must support our families, our staff, our policy.

**From a variety of sources, primarily
'Current Concepts in Pediculosis Management' *from NASN:**

❖ **Oil- and grease-base products –**

The premise is that lice and their nits can be suffocated when the side of the louse where oxygen exchange occurs becomes clogged. This will most likely work on the lice, but has not been tested on nits.

1st group – Crisco, real mayonnaise, margarine, olive oil: saturate, shower cap, leave overnight. Difficult to remove from the hair. The acetic acid in the mayo may irritate scalp lesions.

2nd alternative – petroleum jelly: A full strength grease-cutting detergent like Joy or Dawn, used without water, may help get the grease out. This too is hard on the head and scalp. Heating sections of hair with a blow dryer to liquefy the Vaseline, then blotting it from the head works but care must be taken to prevent burns. And the petroleum jelly attracts dust and lint and one may think they are nits!

3rd variation – aromatherapy or mixtures of essential oils w/ natural oils / alcohol: tea tree, pennyroyal, sassafras, anise oil, coconut oil, eucalyptus – no clinical trials have been conducted on effectiveness. Essential oils have been found effective against body lice; they think the oils alter the nervous system of the louse. Oils contain phenols or phenolic ethers; some contain ketones or aldehydes: these are neurotoxic and/or skin irritants.

❖ **Hair products –**

Gels and hair coloring may smother some lice, but generally don't work. The chemicals in hair coloring products are caustic and may kill adult lice but do not kill nymphs or eggs.



❖ **Animal shampoos –**

No evidence on effectiveness. Safety unknown, inappropriate for treating lice

❖ **Petroleum distillates –**

Kerosene, gasoline, lamp oil, naphtha, motor oil: very dangerous, very volatile fumes, and should NEVER be used. If ingested: chemical pneumonia, seizures, and even death.

❖ **Insecticides –**

Raid? Black Flag? In desperation, parents will use because the ingredient in them is permethrin, they are available and less expensive. DANGEROUS! Concentration is higher than in pediculicides. Harmful when absorbed through the skin, etc.

❖ **Electronic combs –**

The Robi-comb oscillates and emits a high-pitched whine that supposedly attracts lice. Use on dry hair, so more difficult to comb through. Difficult to reach the hair shafts where they emerge from the scalp, the place where viable nits are most likely to be found. No pediculicidal action, so any lice or nits missed can go on to reproduce or hatch.

❖ **Heat –**

Sufficient heat is lethal to lice, and the hot air produced by a hair dryer may be sufficient for eradicating/killing lice and nits. Time, temp, distance from scalp? Risk of scalds and burns, so careful use

❖ **Head shaving and cutting –**

No hair for louse to clutch, but at high emotional cost to the child. Unnecessary. Shorter hair will make it easier to locate and remove nits. That's all.

❖ **Nit removal products –**

- Chitin, the primary component of the nit and its cement, is not highly responsive to degradation. If an enzymatic nit remover is used with a permethrin-based product, it should be applied PRIOR to the pediculicide, as the formic acid in the nit removal lotion can decrease any residual activity of permethrin.
- 50% vinegar, 50% water: leave on 1 – 3 hours. If excoriated areas on the scalp, the acetic acid in the vinegar may be irritating.
- Olive oil or cream rinse may help to loosen nits

❖ **Combs –**

- Intertooth space must be smaller than the nits
- Light-colored combs allow better visualization
- Metal combs are sturdier and less apt to break than those made of plastic
- But combs need to be pliable
- Prices vary
- It is said they also sell nit combs at pet stores



- Clean comb frequently during nit removal process
- Work one section of hair at a time
- Good eyesight and good lighting important

❖ **The Home –**

Lice and nits have short survival times when removed from the human host and the risk of exposure is small; however, they can still live for brief periods if conditions are right. Wash personal items and bed linens immediately in hot water and dry in a hot dryer. Combs and brushes should be soaked in alcohol or hot water each day to dislodge nits. Baseball caps, washable toys, and the like may be washed in the dishwasher or by hand. If washed by hand, the items should be soaked in hot water.

Nonwashable items like stuffed animals may be dry-cleaned or sealed in plastic bags for 10 – 14 days. Carpets and furniture must be vacuumed, the the vacuum cleaner bag sealed and discarded. Whole house cleaning is rarely necessary unless multiple family members are infested.

As lice cannot be transmitted to, or from, household pets, no treatment is warranted. Pesticide sprays or whole house fumigation are not necessary, may be harmful, and should not be recommended.

❖ **Family Surveillance –**

About 59% of infested students will have an infested family member. ... After lice eradicated, heads should be monitored for several weeks for signs of persistence or re-infestation. If new lice or nits are discovered, the process repeats.

Not everyone reads, so we must make any information as personal as possible. Walk the family through what they should know, repeat it, and ask them to repeat it to you. Keep the language simple and to the point. Use visual aids to reinforce instructions. Do not appear condescending or annoyed.

❖ **School Surveillance –**

An aggressive approach to prevent and manage lice infestations is universal, routine screening of high-risk groups and then scheduling regular screenings. Identify early and reduce absenteeism. Early identification may result in few contacts and a lower incidence of children with lice infestations. If 10% or more of the school population is chronically infested, then universal screening must be adopted by the school.

Don't forget the environment at school: cubbies, centers, rest mats, sports helmets, educating the SCOPE program staff.

Issues: out of class time, confidentiality, manpower drain.

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