Arbor
Montessori
School

ARBOR MONTESSORI SCHOOL

HEAD LICE PRIMER

FIRST TIP: Keep this guide where you can find it, **when** you need it…

GENERAL INFORMATION

Head lice infestation is the second most common contagious disease in children (the common cold is first!). While many people associate lice with poor hygiene, this is not the case for head lice. There is no reason to feel embarrassment or shame. Head lice can and do happen to anyone. What follows is information compiled by Arbor's Health and Safety Committee in an effort to educate and to help eradicate outbreaks of head lice that will occur within our community

WHAT ARE HEAD LICE AND WHY ARE THEY A PROBLEM?

Head lice (pediculus humanus capitis) have been around for millions of years. The oldest examples of lice on humans have been found on 4,000-year-old mummies.

Frequent shampooing and bathing will neither prevent head lice nor eliminate them once they are established. Hair length does not influence infestation. In severe infestations, a child may develop a rash on the upper body, and weeping and crusting sores on the scalp, indicating a possible secondary bacterial infection.

The problem with head lice is...it's hard to get rid of them! Current medical practice recommends the use of "over-the-counter", non-prescription pesticides (*Nix, Rid,* etc.), which are effective in killing adult lice but, despite their manufacturers' claims, are at best only 70-80% effective at killing the eggs, called "nits". Recent data also suggests that *Nix* and *Rid* may be less effective today than they were several years ago. This means that lice and nits must be meticulously removed by hand in addition to the use of these pesticides.

Failure by one family to be thorough in nit removal or to follow-up eradication with frequent head checks can mean reinfestation for not only that family but friends and classmates. Elimination of lice in a school community requires that every affected family follow the recommended regimen.

WHEN SHOULD YOU CHECK FOR HEAD LICE?

The best approach to head lice control is early detection. The National Pediculosis Association recommends that families pick a set time to inspect children's heads weekly. Early detection and intervention is the best way to control infestation.

If there is an outbreak at Arbor, all parents in the affected class levels will be notified. We recommend that you begin a daily check at that time and begin treatment at the first sign of outbreak.

How do lice spread?

Lice cannot jump or fly. They crawl about their host and are usually transmitted by contact with infested persons; their clothing, hats, brushes, combs and hair accessories. Other areas of shared contact include furniture and bedding, the head rests of car seats, and headphones. Children should be warned *against* sharing hats, clothing or grooming aids with others. Household pets do not host or transmit lice.

What do lice look like?

Lice are small insects about the size of a sesame seed. They can vary in color, but are usually light brown. Since they move quickly and shy from light, they are often difficult to see. Diagnosis is more often made on the basis of finding nits, the tiny yellowish-white oval eggs attached to the hair shaft. These have sometimes been described as resembling grains of rice. Nits may be found throughout the hair, but are most often located at the nape of the neck, behind the ears, and at the crown.

What are the symptoms?

Children seen scratching their heads should be examined at once, since itching is a frequent symptom of infestation. However, don't assume that because there is no itching, there are no lice. Itching is not the only symptom of infestation. Occasionally red bite marks or scratch marks can be seen on the scalp and neck.

If you have never seen lice, contact someone who has "nit-picked" before and get a lesson in diagnosis. (The Arbor office can help you find a contact.) Many parents have done cursory, uninformed inspections and missed a diagnosis, only to be faced with a miserable job of eradicating a much larger infestation later. The sooner treatment begins the better.

A "lousy" life cycle

The life cycle of head lice is approximately 30 days. The female louse lays 3-5 eggs per day and may lay up to 100 in her life span. Eggs hatch within 6-10 days, then molt for another 7-10 days before reaching maturity. Adult and young, newly-emerged lice need human blood to survive. Off the host, they will die within 24-48 hours.

What is Arbor's Head Lice Policy?

Any child with head lice will not be allowed to return to school until they have been treated with an appropriate pediculicide and all nits are removed ("nit-free"). This ensures that any lice or nits that escaped death from the pediculicide are removed. In the middle of a head lice epidemic it is impossible for a teacher to determine if a previously infested and treated child is experiencing a re-infestation unless the child's head was rendered "nit-free" after the first infestation.

Supplies

Based on information from the National Pediculosis Association and the combined experience of parents, Arbor's Health and Safety Committee recommends the following arsenal for the most efficient attack on head lice and nits.

- Purchase a **pediculicide**, nit relaxer or vinegar solution
- Obtain a ***metal*** **lice/nit comb** from your pharmacy. We do not recommend the plastic ones that come with the pediculicide. (Note: A very good metal comb, the "Licemeister," is available via mail from the National Pediculosis Association.),
- Use a comb or hair pick to **divide hair** into sections. Hold back long hair with clips.
- **Additional supplies** include a magnifying glass, a spray bottle to moisten the hair, and a non-conditioning shampoo—like baby shampoo—to clean the hair. Avoid personal and environmental pesticide sprays.

The recommended pediculicides are *Nix, Rid* and *Clear*. The company that produces *Clear* also makes a nit-removal product, so be careful not to confuse it with the pediculicide. (Note: *Nix* contains 1% permethrin, a synthetic pyrethroid which the American Academy of Pediatrics "Red Book" Report of the Committee on Infectious Diseases considers to have low potential for toxicity and to be more effective than other compounds in killing eggs. *Rid* contains .33% pyrethrum, a natural pyrethrin product, while *Clear* contains .30% pyrethrum.)

IMPORTANT: Products containing the pesticide lindane (e.g., *Kwell*) are toxic to infants and should be used in older children only under the direction of a physician.

Products containing malathion (e.g., *Ovide*), ivermectin, or more than 1% permethrin (e.g., the 5% solution used to treat scabies) can also be used only under the direction of a physician.

If you are pregnant, nursing, have allergies, use medication, or discover nits in the eyebrows or eyelashes, consult your physician or pharmacist before using these products.

If you find that a health-related condition prevents you from using pediculicides, or if you object to the use of these substances, you will have to complete the most thorough nit-picking and louse removal possible. Bear in mind that adult lice move very quickly and are hard to catch, even with a fine metal nit comb, so you may need to recruit additional pairs of hands to work from opposite sides of the head.

Some parents have found success in removing nits by using substances which relax the cement that holds the nits on the hair. A vegetable enzyme product called "Clear Lice Egg Remover" has worked for some, while a solution of diluted vinegar (equal parts vinegar and water) applied after the pediculicide has worked for others. Once again, read the instructions on both the relaxer and the pediculicide before you begin, since the sequence of use may vary.

If you investigate alternative lice treatments from health stores, do your research! Just because a chemical is derived from a plant does not ensure it is non-toxic (for example: hemlock, deadly nightshade, poinsettia).

Treatment

Before one family member is treated, all should be examined by someone who has experience with head lice. (*Again*, If you have never seen head lice it is extremely unlikely that you will make an accurate diagnosis, especially if the infestation has just begun. Seek help from others with experience.) Only treat those showing evidence of infestation, and complete all treatment at the same time to decrease the chance of one family member spreading the infestation to another. "Preventive treatment" (i.e., dousing someone with pediculicide simply because he/she may have been exposed) does not substitute for careful examination and gives the individual who is treated an unneeded exposure to pesticides.

Dandruff a/o dry scalp may confuse the issue of whether or not nits are present. In general, dandruff comes off the hair shaft easily while nits do not. If you are not sure, ask your doctor or call Arbor for help from a parent or teacher who is familiar with head lice.

Applying Pediculicide

Before treating, carefully read all the instructions on the product packages. No pediculicide should be used in the eye area. Avoid applying pediculicides when there are open wounds in the scalp of the person to be treated: contact your physician if this condition exists. If the person applying the product has open wounds on the hands, gloves should be worn. **Do not use these products on infants.**

Follow the treatment instructions carefully. Position the person being treated over a sink or tub edge, and use a towel to cover the eyes. After treatment, rinse the product by using a bath hose or pouring water over the scalp only. This will help confine exposure to the product to the **scalp only** as much as possible. Avoid having pediculicide run down over body. After treatment is completed, the individual should put on a clean shirt.

"Nit-picking": You're not through yet!

Even with the use of pediculicides you will still have to complete thorough nit picking and louse removal. If you are fortunate enough to get help with this, take advantage of it. Two can reduce the misery for picker and *pickee*, plus catch any lice that may have escaped death from the pesticide.

Set up your nit-picking supplies outdoors in sunlight or in a well-lit room without carpeting. Position yourself near a sink or have a bowl of water nearby to rinse the nit comb and dispose of the lice and nits. Provide a comfortable chair for the person being treated, and if possible, some form of entertainment.

Separate the moistened hair into small (1/2" to 1") sections and carefully scrape each section. Start at the scalp, all the way down to the end of the hair shaft. If the comb won't remove the nit you may pinch it between your fingernails, or use infant scissors (small but not pointed) to snip out the hair. Either way, it is still advisable to move the comb through the hair to catch any missed adults.

This process is time consuming and often takes an hour or more, but it is worth it. Even when you are certain you caught *every* nit, you may be surprised when you find more the next day.

"NEXT DAY?!" Yes, after all the time you invested for the first treatment, **it is imperative that you moisten the hair and check for nits daily for at least 10 days.**

Treatment of personal articles and the environment

Now that you've treated the individual, it's important to turn your attention to the environment.

- All clothing and bed linens that have been in contact with the infested person in the previous 3 days should be washed in hot water and dried in a HOT dryer. To stop nits from hatching, **it is also wise to launder sheets and pillowcases daily.**

- Items that cannot be washed should be dry cleaned or thoroughly vacuumed. Play detective and try to think of all objects that may be contaminated. It would not hurt to remove items such as hair accessories, stuffed animals, dress-up clothing, batting helmets, etc. to an isolated location (attic or basement) for at least 14 days to kill off any contaminating adults and nits.

- After changing the bedding, thoroughly vacuum the floor and furniture in the affected person's bedroom. Remember to vacuum other furniture - chairs, sofas, and carpeting with which the individual may have had contact. Don't forget the car: vacuum the seats thoroughly and vacuum and wipe headrests.

Note: The CDC discourages use of insecticidal sprays in the household for lice control since they may be harmful to family members and pets, and since vacuuming carefully seems to be effective.

Retreatment

Many pediculicides recommend retreating after a week, but it is optimal to wait to treat at 10-12 days. This is the point in the louse lifecycle when all the nits have hatched but no louse has reached maturity and started laying new eggs. If you wait longer, you may be faced with a new generation of nits!

Itching after treatment does not always indicate the process was unsuccessful and is not a good reason to re-treat. The treatment process can dry the scalp and thus cause itching.

Do not treat anyone who has no evidence of infestation, and do not repeat the treatment before the recommended interval. Not only would this expose individuals to pesticides unnecessarily, but repeated use of pesticides also creates resistance to the pesticide. There's no faster way to create resistant lice than overuse of pesticides.

Discontinue use of a pediculicide at the earliest signs of treatment failure. Switch to another brand and make a greater effort to remove lice and nits manually. Recurrent episodes of head lice in a child despite what appears to be adequate chemical treatment and nit-removal mandates consultation with your child's doctor.

Other Nit-tid-bits

In temperate climates, head lice deposit their eggs on the hair shaft approximately 3-4 mm from the scalp. The duration of infestation can generally be estimated by the distance of the nit from the scalp, however new evidence suggests that viable nits may be found any distance from the scalp. That eliminates the old rule that nits found more than one-quarter inch from the scalp don't need to be removed.

The bottom line? *Unless you enjoyed the process of nit picking and want to repeat it, remove **all** nits!*

Recent evidence (and first-hand experience from Arbor teachers and parents) suggests that head lice may already be developing resistance to the non-prescription pediculicides. Resistance to the prescription pediculicide lindane (*Kwell*) has also been reported from several countries. **Overuse of pediculicides is to be discouraged: it only leads to resistance, in addition to possible toxicity.**

Beware of product claims of *98% lice/nit kills*! These claims offer wish-fulfillment to parents, who dread the long and unpleasant process of nit-removal. The effectiveness of these products is in reality much lower, so you *must* comply with total nit removal! **Non-compliance with nit-removal and failure to follow directions carefully are the major causes of reinfestation.**

NOTE: The American Academy of Pediatrics' *Red Book* states "after treatment with an appropriate pediculicide, removal of nits is not necessary to prevent spread." The Georgia Department of Health guidelines also suggest that children do not have to be "nit-free" before being allowed to return to school. These policies were arrived at based on the assumption that use of an appropriate pediculicide renders adult lice and eggs (nits) dead, and therefore not transmissible. Our combined experience has shown that the only true way to eradicate is to remove all nits.

Therefore, here is Arbor's Head Lice Policy... one more time:

Arbor's policy is that any child with head lice will not be allowed back to school until they have been treated with an appropriate pediculicide and all nits removed ("nit-free"). This ensures that any lice or nits that escaped death from the pediculicide are removed. And frankly, in the middle of a head lice epidemic, it is impossible for a teacher to determine if a previously infested and treated child has a re-infestation if they were not rendered nit-free after the first infestation.

Need Help?

You are not alone! The **Arbor Nit Patrol**, a group of Arbor parents who are veterans in the lice wars, are ready and willing to answer questions and even check heads. Call the Arbor Office for contact names. And, the Arbor Health and Safety Committee has reference materials on lice treatment available for your use.

For further information on head lice you may also contact the National Pediculosis Association at 781-449-NITS (6487); fax 781-449-8129. Or check out their Internet site at www.headlice.org

Most of all, have patience and try to keep your sense of humor. It won't last forever.

Arbor's Health and Safety Committee expresses its appreciation to Paideia School for graciously allowing us to use their excellent "Head Lice Primer" as a model for our own.

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