

RECOMMENDED GUIDELINES FOR THE MANAGEMENT OF PEDICULOSIS (HEAD LICE) IN SCHOOL SETTINGS



**School Health Program
Bureau of Children's Health
Texas Department of Health**



<http://www.tdh.state.tx.us/schoolhealth>

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For an electronic copy of this publication, more info on head lice and other school health-related topics visit the TDH School Health Program website:



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DEFINITIONS

- Adenopathy:** an enlargement of a gland, especially a lymphatic gland.
- Cervical:** of or pertaining to the neck or the region of the neck.
- Epidemiology:** the study of the occurrence, distribution, and causes of diseases affecting humans.
- Excoriation:** an injury to the surface of the skin or other part of the body caused by scratching or abrasion.
- Impetigo:** a streptococcal, a staphylococcal, or a combined infection of the skin beginning as focal and honey-colored crusts. Lesions usually form on the face and spread locally. The disorder is highly contagious by contact with the discharge from the lesions. Acute glomerulonephritis is an occasional complication. Treatment includes thorough cleansing with antibacterial soap and water, compresses of Burow's solution, removal of crusts, and topical or oral antibiotics. Essential to prevent spread of infection are treatment of the sores, use of individual washcloths and linens, and the need for scrupulous hand washing.
- Lice:** plural for louse (see below).
- Louse:** a small, wingless, parasitic insect that is the carrier of such diseases as relapsing fever and typhus. Lice are common parasites on the skin and may cause intense pruritus.
- Nit:** the egg of a parasitic insect, particularly a louse.
- Occipital:** of or pertaining to the back part of the head.
- Ovicidal:** effective in killing insects while still in their eggs.
- Pediculosis:** infestation of head lice.
- Purulent:** containing or secreting a viscous yellow-white fluid (pus) formed in infected tissue.
- Pyoderma:** any purulent skin disease, as impetigo.

INTRODUCTION

Head Lice and Children

Pediculosis (commonly referred to as head lice) can happen to anyone regardless of age, ethnicity, or sex. Pediculosis affects between 6-12 million people in the United States alone each year, and is the most common childhood affliction following the common cold.¹ Unlike the cold virus, however, pediculosis is a social issue, and not a health problem.

Pediculosis is more prevalent among children than adolescents and adults, probably because children are naturally affectionate and have head to head contact through play and other activities. Children are more likely to share personal items such as caps, helmets, combs, brushes, etc. They forget that in sharing these items, they may also be sharing head lice. Pediculosis, therefore, is a common nuisance that parents may find themselves dealing with during their children's early school years.

Pediculosis can spread from child to child in any group setting such as school, day-care centers, the home, or any other setting where children have opportunities for close physical contact or sharing personal items. For this reason the control of pediculosis is a community problem that is most effectively addressed through the cooperative involvement of families, schools, physicians, pharmacists, neighbors and local public health authorities. Working together, these parties should learn how to recognize head lice, how to safely and effectively eliminate infestations, and how to educate children and their families to reduce the incidence of head lice transmission.

The Role of the Texas Department of Health (TDH)

TDH's role is to provide current and accurate information on the diagnosis, treatment and prevention of head lice so that people are better informed and equipped to address head lice infestations using safe and effective methods.

This publication has been prepared specifically for the personnel of schools and other childcare settings in order to:

- Provide a source of accurate and current information regarding head lice epidemiology, treatment, and prevention;
- Recommend procedures to be used in managing cases of head lice in school or other group child-care settings; and
- Assist schools and other group care settings in developing local policy and procedures to be used in the prevention and management of head lice infestations.

This publication may also be useful to parents, physicians, local health authorities, and other agencies and/or individuals that work with and/or care for children.

¹ Hansen, Ronald M.D., et.al. *Guidelines for the Treatment of Resistant Pediculosis*. Contemporary Pediatrics. 2000, vol. 17, no. 8 (Supplement)

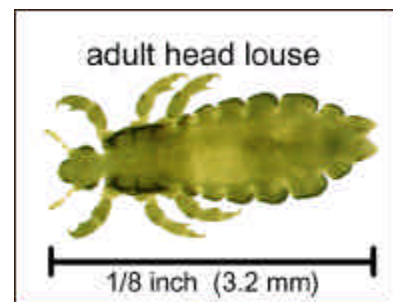
WHAT IS PEDICULOSIS?

History

Pediculus humanus var capitis (commonly referred to as head lice) has been spreading from one person to another for at least as long as recorded history. The remnants of head lice have been discovered on mummies excavated from prehistoric tombs. Commonly used words such as *lousy*, *cooties*, and *nit-picky* originate from terms used to describe head lice and its effect on humans.

General Characteristics

Head lice are tiny insects that live on the human scalp, most prominently in the occipital area. The head louse measures 2 to 3 mm in length, moves rapidly, is generally grayish-brown, (although it tends to resemble the hair color of its host), and if engorged with blood, may become reddish. These wingless insects are fitted with claws on the ends of each of their six legs that enable them to cling to human hair shafts. An initial infestation usually consists of less than 12 adult head lice.

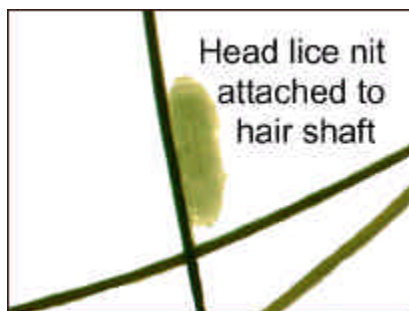


Subsistence

Head lice subsist exclusively on blood feedings that they obtain from the head of a human host. A typical louse will take a blood feeding approximately every hour. The total consumption of blood per louse is probably no more than .001 ml per day. If separated from the environment and sustenance of a human host, a louse will starve to death, as it cannot gain sustenance on anything other than human blood.

Life Span and Reproduction

Head lice consist of both males and females. The life span of a head louse is approximately three to four weeks. This will be shortened, however, if the head louse is not attached to the head of a human host. Off of a human host, a louse starves and dies in one to three days.



A female louse lays between 50 and 150 eggs during her normal thirty-day life span. This assumes the louse is attached to a human host upon which she can feed and where there are hair shafts upon which she can glue her eggs. She attaches each of these eggs firmly to a hair shaft with a natural secretion, which works like cement (see picture on left). Eggs are grayish-white oval bodies (about 0.8 x 3mm). The eggs hatch in five to ten days, with the new lice reaching maturity in about two weeks.

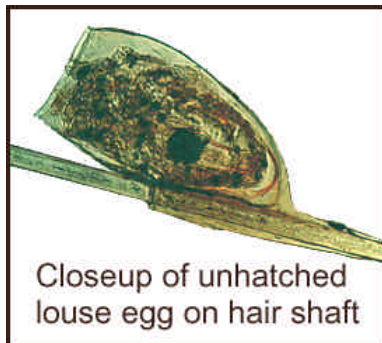
Transmission

Head lice are transmitted from one human to another by some form of direct or indirect head to head contact. Common forms of transmission among children are playing head to head and/or sharing personal items such as combs, hairbrushes, hats, hair clips, ribbons, scarves, or other head coverings.

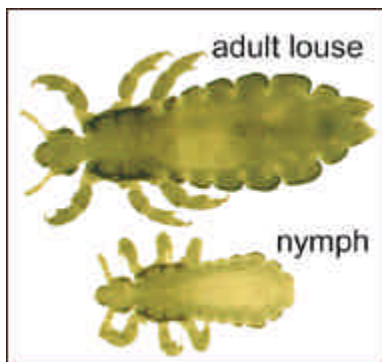
The type of head lice that inhabit a human being's head do not infest other animals, nor vice versa. Hence an animal or pet with a lice infestation does not pose a potential for transmission to a human. Nor can an animal/pet contract lice from a human being. In addition, the type of human lice known to infest the groin area (commonly referred to as crabs) and those that infest the body (commonly referred to as body lice) are different than head lice, and do not intermingle.

It is also important to note that head lice, unlike other insects, do not inhabit a physical environment and/or subsist off of anything other than human blood. For this reason, it is unlikely that a head louse will wander far from a human head in search of a new host. A head louse unattached to a human host is in the process of starving to death from a lack of human blood. Such lice will die in one to three days, if not sooner.

Identification



Closeup of unhatched louse egg on hair shaft



In an active case of head lice, nymphal or adult lice (1 to 2 mm long) are present. Grayish-white oval nits (about 0.8 mm x 3 mm) are found firmly attached (glued) to hair shafts near the scalp. These eggs will not brush off of the hair. If the egg-like object does move easily, it may be dandruff, dry skin, or a foreign particle (see page 8 - **Misidentification**).

Eggs farther than approximately 1/4 an inch (1centimeter) from the scalp have either hatched or are considered infertile and most likely will never hatch. A case of head lice, therefore, is not considered active unless nymphal or adult lice are present, or, eggs are located less than 1/4 an inch from the scalp. The presence of nits alone, however, does not necessarily indicate an active infestation of head lice.

Nymphal and adult head lice can be difficult to detect visually because (1) they tend to crawl towards a darker region when exposed to light, and (2) head lice are capable of crawling rapidly along human hair shafts. When parting aside a section of hair, head lice in that exposed region are likely to crawl to an unexposed region before they can be seen. For this reason, the identification of an active head lice infestation is best confirmed by the presence of eggs less than 1/4 inch from the scalp rather than the presence of actual head lice.

Misidentification

When looking through the hair for the presence of head lice and/or nits, be aware there are other particles commonly found in the hair that may appear like nits but are not related to head lice. These include:

Dandruff – flakes of dried skin from the scalp that are dislodged and attached to hair shafts.

DEC Plugs (desquamated epithelial cells) – bright, white, irregularly shaped clumps of fat cells stuck to the hair. These can occur when oil glands in the scalp work to compensate for the drying effects of chemical treatments. A DEC plug will encircle the hair and cannot be easily removed.

Hair casts – These are thin, elongated, cylinder-shaped segments of dandruff that encircle the hair shaft and are easily dislodged.

Other debris found in the hair could include dirt, small plant matter blown into the hair by the wind or during play, or flakes from hair grooming products. Generally, if the object can be easily flicked from the hair with the finger, it is not a nit.

Common Misinformation about Head Lice

- Head lice are not an indicator of poor health habits or poor hygiene.
- Head lice are physiologically incapable of either jumping or flying.
- Head lice are not a “school problem”.
- The occurrence of head lice in a child does not indicate “bad parenting”.

EFFECTS OF HEAD LICE ON THE COMMUNITY

Children

Most often, the presence of head lice on a child is asymptomatic, and can go unnoticed for long periods of time. It is often only by accident that a parent, school nurse or teacher discovers a child's head lice infestation. In some cases a child will experience itching on the scalp and head area. This itching is usually an allergic reaction to the head lice saliva that can enter the child's skin when head lice are feeding. Further symptoms of head lice are indirect ones resulting from incessant scratching. They are excoriation, which can then lead to pyoderma and impetigo. Sleeplessness has also been presented as a possible symptom of a head lice infestation.

While head lice themselves do not present any long-term adverse health effects, the educational and social effects of a head lice infestation do. Students suffer from a loss of class time, absences from school and related activities, and the social stigmatizations associated with common misperceptions about head lice. Schools and parents all too often place blame and accusations on parents of children with chronic head lice. This can have a negative impact on the self-esteem of the infected child. Often, a parent unable to manage a head lice infestation signifies larger social and/or financial problems in the home. Such parents may have difficulty resolving the head lice problem until the larger problems have been addressed. Children in such cases can suffer from feelings of shame, inadequacy, and inferiority as a result of a resistance on the part of other parents, school staff, and peers to see past the issue of head lice and the misconceptions and stigmas that can come along with it.

Families

When a child has chronic head lice the family may suffer financial and employment related hardships. When children are forced to stay home from school, it is often necessary for the parent(s) or guardian to take time off of work to care for the child. The cost of head lice treatment may pose a financial burden on some families. Although TDH does not recommend a prophylactic use of head lice medications, some health care providers may recommend treatment of the entire family of an affected child as a preventive measure. This can cause further financial hardship, and has not been proven effective as a preventative measure.

Separated families have the potential to pose an additional challenge in the treatment of head lice. Parents may have difficulty carrying out a consistent and effective treatment plan when separated by distance or communication barriers.

School Staff

In the school setting, the occurrence of head lice is most often an isolated incident with few short-term effects when treated properly and promptly. Schools that choose or are required by the district to conduct massive screenings or devote significant time to head

lice education and prevention must often do so at the expense of time and resources to address more serious student health issues.

Screenings disrupt the students' class time and the teaching schedules of the instructional staff. Since Texas does not require schools to employ either nurses or health staff, schools must often delegate the task of screening children and providing education on head lice prevention to administrators and/or teachers. Schools that do staff licensed health care providers rely on their ability to address the needs of mentally and/or physically disabled students and students with specific special health care needs. Hence these staff members, when present, are not always available to carry out head lice screenings and preventative education.

Those schools that can devote time and resources to providing annual or semi-regular head lice screenings and basic education on prevention and treatment, may find they save time in the long run by reducing the amount of infestations throughout the year. The extent of time and resources that a school will dedicate to head lice prevention and education is best determined on a local level by school staff, administrators, physicians, nurses, parents, local health agencies and the school board.

All health related needs should be considered when a decision is made to allocate resources to the school health program. A coordinated school health program includes the following components:

- Health services
- Health education
- Mental health
- Nutrition
- Physical activity
- Parent / community involvement
- Safe environment
- Staff wellness promotion

This may serve as a guide to schools in order to prevent a reactive or disease specific approach to school health programming.

PREVENTION AND TREATMENT OF HEAD LICE IN SCHOOLS

Developing Appropriate School Policy

With input from parents, local health care providers, district administrators and school nurses, districts should establish policies and administrative procedures addressing the management of head lice. Points that need to be considered and addressed include:

- (1) Screening Procedures
- (2) Parent/Guardian Notification
- (3) Exclusion Protocol
- (4) Readmission criteria
- (5) 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 campuses within a given district. This aids in ensuring that all children are treated in a fair and equitable manner.

Screening Procedures

Mass screenings are disruptive and often not warranted. They increase the potential for lice phobia and prophylactic use of pediculicides. Symptomatic individuals should be referred discreetly to the school nurse or other appropriately trained school personnel.

Individual screenings, however, are both appropriate and worthwhile. When examining a child for a possible infestation of head lice, be alert to the symptom of itching, although not always present. Being careful to preserve the dignity and privacy of the student, look through his or her hair for eggs or lice at the nape of the neck, behind the ears, and on the crown of the head.



If any are eggs and/or nits are found, the student should be sent to the school nurse or other trained examiner for further evaluation. Once the school nurse or trained examiner has confirmed an active case of head lice, it is advisable to keep the student from close personal contact with others and to notify the parent. Parents should be educated about the needed treatment, how to identify head lice infestations, how to delouse bedding

and personal articles, and how to prevent transmission. It is also helpful to ascertain where the child may have become infested so that community sources of head-lice infestation may be addressed.

Parent/Guardian Notification

Classroom or school-wide notifications may serve to increase public alarm and bring undue attention to children with louse infestations. Such notifications disrupt school productivity and may strain school resources. To prevent this, as well as the injudicious use of pesticides on unaffected classmates, parents of infested children should be the only individuals notified if a louse infestation is confirmed.¹

Exclusion Protocol

It is advisable for the school district to formulate procedures for handling active cases of head lice in the manner least disruptive to the learning process. Individual screenings may be scheduled in a way that reduces the amount of school time missed by those individuals found to have an active case of head lice. Upon notification that a student has head lice, it is advisable for parents to pick up the child from school and begin treatment as soon as possible, so the student may return to school promptly the next day, if not before. Careful consideration should be given to developing alternatives for children whose families lack transportation or who for some reason are unable able to pick up their child from school. Children should not be forced to sit idly in the office losing valuable education time simply because they have head lice.

“There is little evidence that exclusion from school reduces transmission of head lice. No other minor medical condition warrants school exclusion. Conversely, children with more morbid, communicable disorders (i.e. viral URI’s, tinea capitis) are routinely allowed to remain in class. Therefore, confirmation of louse infestation does not warrant exclusion, but does require treatment. The “no-nit” policy is not in the best interest of the child, the family, or the school.”²

¹ Hansen, Ronald M.D., et.al. *Guidelines for the Treatment of Resistant Pediculosis*. Contemporary Pediatrics. 2000, vol. 17, no. 8 (Supplement)

² Hansen, Ronald M.D., et.al. *Guidelines for the Treatment of Resistant Pediculosis*. Contemporary Pediatrics. 2000, vol. 17, no. 8 (Supplement)

Readmission Criteria

Students returning to school after treatment should be examined before they return to class. If signs of re-infestation are noted, school health personnel should take special care to review with the parents or guardians the correct procedures for treatment, nit-removal, and delousing the household environment. Frequent infestations and excessive absences may be signs of other problems, and the school may choose to seek assistance from a local public health department or an appropriate local regulatory and/or social service agency.

If the inability of a student's family to purchase pediculicide is an issue, collaboration between the school system and local community service agencies may provide a resource for funds. For those who have Medicaid or health insurance, many pediculicides, both over the counter and prescription, are covered. They do require a written prescription from a physician, even for over the counter brands. Generic, less expensive store brands are available as well.

Definition of and District Response to Excessive Absences Due to Head Lice

School districts are encouraged to develop local policies and procedures so that all cases of absence(s) due to head lice are handled consistently. "Excessive absences" is defined by local school districts under guidelines from the Texas Education Agency.

Education and Promoting Awareness

Families - efforts must be made at the community level to educate families about the:

- facts and myths surrounding head lice infestations;
- appropriate use of pediculicides;
- use of lice combs and nit-removal;
- value of screening all family members regularly; and
importance of not isolating the infested children and not excluding those children from school.

Written information concerning the identification and treatment of head lice may be distributed to families at the beginning of each school year, during the year, and as needed when infestations occur. There are various mediums of providing head lice information:

Campus handbook
Letter to parents at beginning or during school year
Article in school newsletter
School Policy Manual / Parent Orientation Manual
PTA/PTO or other parent meetings held at school
Media / press releases

When providing information on head lice to parents/guardians, keep in mind the ability to understand and complete directions will be affected by a variety of factors including emotional state, literacy level, language/communication skills, and home conditions, such as availability of running and/or hot water, a working sink or shower, and availability of laundry facilities.

Provide parents with written instructions when appropriate. Encourage the family to think of situations and locations, in addition to school, where the child may have become infested. Potential community sources of head-lice should be identified and treated, if necessary and appropriate.

Assure families that itching may persist for a few days, but is not cause for re-treatment unless new nits or live lice are found.

School Staff

In-service presentations can be given to provide head lice education to teachers and staff. When planning such presentations, include information on:

- identification and treatment of head lice;
- new trends in public health pertaining to head lice;
- current medical research on head lice;
- district policy and campus procedures for appropriate management of head lice; and policy and ethics related to the right to privacy and dignity of the student and family.

Students

Educational materials and videos are available from a variety of sources (see **Teaching Tools & Resources** – page 26). Information on the prevention and treatment of head lice can be included and/or incorporated into the school health curriculum.

Care of the Classroom Environment

All hats, coats, and resting mats should be stored separately. Some possible options are:

- assigning individual lockers to students;
- assigning coat hooks (with adequate space in between) to each student;
- letting students hang their coats on the backs of their seats;
- storing caps and scarves separately (in sleeve of jackets) or letting students keep them at their desks; and/or
- sealing hats, scarves, coats and resting mats in separate, labeled plastic bags; and/or
- in physical education classes, number all clothes hooks and assign a hook to one student for each period or assign individual lockers to students each period.

PREVENTION AND TREATMENT OF HEAD LICE IN THE HOME

Prevention

Parents should routinely check their child's head for signs of head lice (see **Is it Head Lice?** below). Persistent itching of the head and back of the neck can indicate head lice. An active infestation of head lice does not always cause itching. Hence parents should check their child's head on a regular basis whether the child complains of itching or not.

Students should be taught and reminded regularly the facts of head lice, its treatment and transmission. They are to be encouraged to take personal responsibility for avoiding behaviors that increase the risk of transmission, such as:

- sharing combs, brushes, or hair accessories;
- sharing hats or other clothing items;
- prolonged head to head contact during play; and/or
- sleeping in same bed with a friend who has head lice.

Is it Head Lice?

Intense itching is a possible symptom of head lice. However, itching is not present at the beginning stages of an infestation, and in some cases never occurs. Itching, when present, is probably an allergic reaction to saliva, which enters the skin during their blood meal. Most often, the presence of head lice is asymptomatic and is noted only incidentally by the parent, teacher, or school nurse.

When checking a child for head lice, parents should look for infected scratch marks or a rash on the scalp. Most importantly, parents should look for eggs attached to individual hairs. Sometimes small white specks in the hair such as dandruff can be confused with eggs (see **Misidentification** – page 8). The key difference is that eggs are very difficult to remove since they are glued to the hair shaft, whereas dandruff or other particles will brush away easily.

Medicinal/Topical Treatments

Numerous pediculicides are available by either prescription or over the counter to treat head lice. It is always a good idea to consult with a physician and/or pharmacist for recommendations. Products should be properly labeled with the active ingredients, indications, dosage, and warnings of side effects and what to do if they occur. Unless advised otherwise by a physician, follow the instructions on the bottle exactly! Pediculicides may have harmful side effects if used excessively and/or improperly.

Eight to ten days after the initial treatment, a second treatment may be recommended to ensure that any newly hatched nits will be killed before they can begin laying eggs and restarting an infestation.

Nit-Picking

Because pediculicides are not always 100% ovicidal (effective in killing eggs), it is extremely important to use an effective metal lice comb to remove nits and dead lice. Nit removal is never easy, but it is becoming more and more essential due to increasing reports of inefficacy of pediculicides, also referred to as resistance.

Remove as many eggs and nits as possible with a comb specially designed for this purpose. A regular comb is not sufficient. The ideal type of comb for this task has metal teeth and is designed specifically for nit-picking. Below are basic instructions for removing eggs and nits. Parents may need to improvise depending on the type and style of hair their children have. Use common sense in devising a method to ensure you have inspected and combed through EVERY strand of hair on your child's head.



1) Dampening the hair first will make the combing process easier, especially for children with curly or hard to comb hair. Begin by combing out tangles with a regular brush or comb. Then, part the hair into four sections and pick one section to work on at a time.

These illustrations are provided courtesy of **Bayer Consumer Care*



2) Begin at the top of the head in the section of hair you have chosen to work on first. With one hand, lift a small amount of hair (about a half of an inch). With a comb designed for nit-removal, comb the hair in your hand in a firm, even motion. Start your motion at the scalp, and move down to the ends of the hair strands. Make sure the teeth of the comb are as deep into the hair as they can go and touching the scalp. Working with small sections of the hair will ensure better results.



3) Wipe eggs (nits) completely from the comb's teeth with a tissue. Using bobby pins or clips, pin back each handful of hair you have finished combing it for nits. This will help you to keep track of sections you have already combed and those that still need combing.

4) Continue this process through all sections of the hair. After the entire head has been combed through for nits, rinse the damp hair thoroughly with warm water.

5) Repeat this process daily, or as often as possible, during the entire treatment period of the head lice infestation. Although you may have removed all of the eggs present, an unseen louse that has survived treatment could lay additional eggs subsequent to combing. For this reason, the process of combing out any nits you can find should be continued on a regular basis for at least a week after the topical treatment is completed and the infestation appears to be eliminated. In addition, check the infected person's head every two to three days for two to three weeks even after treatment and nit removal appears to be completed.

Treatment Problems

The leading cause of ineffective treatment is **failure to follow the directions on the package**. Pay close attention to whether the solution should be applied to wet or dry hair. Other treatment problems may include ovicidal failure of the OTC product, resistance to the pediculicides and/or reinfestation from another source.¹

In many cases, what appears to be a new infestation of head lice is actually a continuation of the initial infestation due to insufficient or ineffective treatment. Unfortunately, a stray louse that eludes treatment, or a stray egg that is missed during the nit-picking process, can both be sufficient to start the infestation over again. In some instances indications of head lice reappear within a month of the completing head lice treatment. These cases are more likely to be the redevelopment of the initial infestation, and not the result of the child being exposed to an outside source of head lice again.

Alternative Treatments

Under no circumstances should treatment 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 on animals, bleach, or any other household cleanser. These products are highly dangerous, can result in the death of the child, and should never be considered for use in head lice treatment under any circumstances.

Various products have become available for the treatment of head lice. 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 so that consumers can call the company with questions regarding proper usage, possible side effects, and what actions to take if side effects occur. Products should also list the active ingredient(s) so that the consumer can consult with a physician or pharmacist about the possibility of allergic reactions and what, if any, possible side effects of that particular agent should be considered.

¹ Hansen, Ronald M.D., et.al. *Guidelines for the Treatment of Resistant Pediculosis*. Contemporary Pediatrics. 2000, vol. 17, no. 8 (Supplement)

Home remedies have been around as long as head lice have. The most common of these are oil-based products. Oil-based products appear to work by clogging up the breathing pores of a head louse, hence cutting off its oxygen supply. Examples of common home remedies are mayonnaise, petroleum, olive oil and mineral oil. TDH does not support either the efficacy or inefficacy of such remedies. It should be noted that such products are generally difficult to remove from the hair, and probably have no ovicidal effect. For this reason, the use of such products does not eliminate the importance of thorough nit-removal.

Shaving the child's head does not preclude the need for medicinal treatment and nit removal as described above. It may, however, be considered as a helpful preventative measure, and a way to make the nit-picking process easier. It should be stressed, however, that shaving is in no way necessary, and should only be considered if it is certain that doing so does not threaten the dignity, self-esteem, comfort, and hairstyle preferences of the child.

Care of the Home Environment ¹

Household de-infestation should be carried out at the same time as the child's hair treatment. Excessive cleaning measures are not necessary because head lice rarely live off the human host longer than a day. Routine cleaning measures, however, are recommended. Routine cleaning should include:

- 1) Laundering of recently used clothes, towels and bedding materials in hot water (130 degrees Fahrenheit) or tumbling in a dryer on high heat. Allow time for water to heat between wash loads. Dry 20 minutes in dryer, or press with hot iron.
- 2) Thorough vacuuming of carpets, mattresses, upholstered furniture, and car upholstery.
- 3) Any stuffed animals, blankets, or fabric items the affected child sleeps with should be thoroughly washed in hot water (130 degrees Fahrenheit) or tumbled in a dryer on high heat for twenty minutes.
- 4) If such items above are non-washable, they should be either dry cleaned or sealed in a plastic bag for approximately two weeks.
- 5) Parents should clean the child's combs, hairbrushes and other hair accessories in hot water (130 degrees Fahrenheit).

Follow-Up Treatment

Eight to ten days after the second treatment, the child should be re-examined by a health care professional. If an active infestation is detected, it is likely that treatment failure has occurred. If this is the case, it is recommended that the parent confer with a

¹ Hansen, Ronald M.D., et.al. *Guidelines for the Treatment of Resistant Pediculosis*. Contemporary Pediatrics. 2000, vol. 17, no. 8 (Supplement)

health care professional at this point to identify where treatment failure occurred, and to obtain further treatment recommendations. The parent should be checking the child's head every one to two days for at least two to three weeks after the end of the treatment period.

Treatments TDH Does Not Recommend

Spraying/ Bombing

Spraying furniture, rugs, carpets and pets with an insecticide is not recommended. Fumigation for head lice is of little or no value, and increases the potential for needless exposure to toxic chemicals. TDH does not recommend this practice in any setting.

Toxic/Flammable Chemicals

Home remedies such as flea shampoo, alcohol, kerosene, and gasoline should never be used. These are extremely dangerous and are not proven to be effective against head lice.

Over-use of toxic medications

Frequent repeated treatments with pediculicides can cause irritation of the scalp, leading to excoriation, impetigo or even possible damage to the hair shaft, and can be painful and dangerous to the child. Treatments containing lindane are contraindicated in pregnant or nursing women or persons with known seizure disorders.

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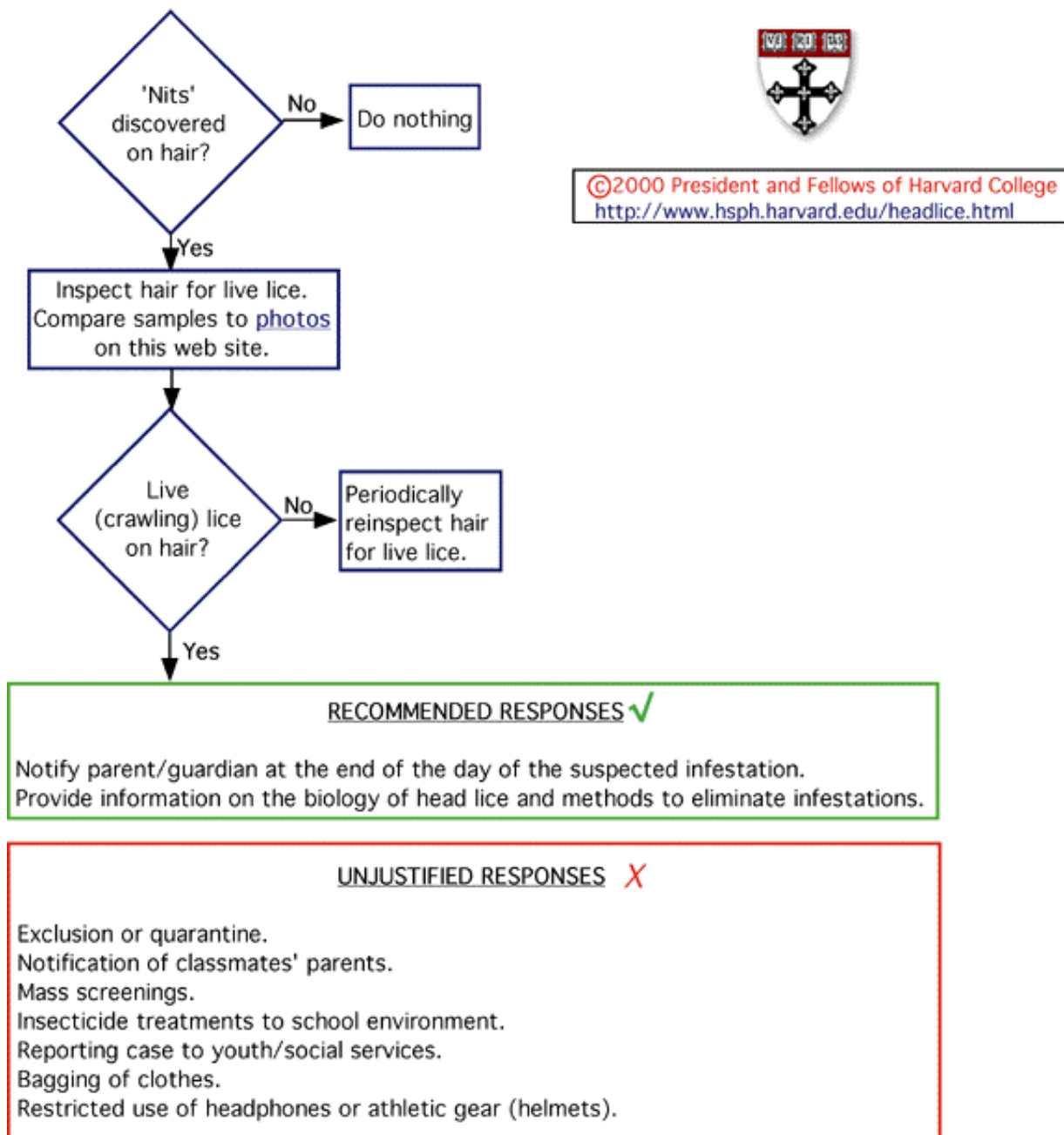
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APPENDIX

Suggested Pediculosis Decision Making Model for Schools (From the Harvard School of Public Health)

Scheme for managing presumed head louse infestations in schools



Sample Newsletter Article

A Lousy Deal...

Head lice is one of the nuisances that parents of school-age children occasionally find themselves dealing with.

The head louse has been around for thousands of years and affects between 6-12 million people in the U.S. each year. It is the second most common childhood affliction, after the common cold.

The _____ Independent School District handles head lice according to the following:

Individual head checks are performed on an as needed basis. Parents are encouraged to periodically check their student for nits (lice eggs), which would indicate the presence of an adult, egg-laying louse. Nits appear as small, clear-whitish ovals attached firmly to the hair shaft. The eggs are usually laid on the hair behind the ears or at the nape of the neck. Adult lice may be found scurrying about at the crown of the head. Parents are encouraged to pick up and treat the student as soon as possible. Many over the counter (OTC) treatments are available. Thorough treatment includes combing through the hair with a special comb and removing as many of the nits as possible. Students may return to school as soon as one treatment has been given. We ask that a parent complete the information found on the bottom of the head lice notification letter and bring their child to school and check in with the school nurse before returning to class. If you have questions, please contact your doctor, a pharmacist or the school nurse. Don't let the pests get you *BUGGY!*

Notes to School Districts:

Insert School District Name here

Modify according to district protocol

Sample Letter to Parent/Guardian

(Schools and other group-care settings are welcome to use this sample letter verbatim, or alter it to fit their district/organization protocol for managing head lice infestations.)

[SCHOOL DISTRICT LETTERHEAD]

Date:

TO THE PARENTS OF: _____

In a screening examination at school, your child was found to have head lice. Head lice infestation in school-aged children is common in the United States. All socioeconomic groups are affected. Hair length does not influence infestation. Head lice are not a major health hazard. Transmission occurs by direct contact with infested individuals or indirectly by contact with their personal belongings such as combs, brushes, and hats.

However, to prevent further spreading of head lice in school, this condition should be treated at once. Before returning to school, complete the following:

- Treat your child with appropriate topical medicine (consult with your doctor/pharmacist for recommended treatments)
- Remove all eggs (nits) from your child's hair
- Counsel your child on how head lice is transmitted and how to prevent head lice infestations.

Please bring your child to school and check in with the nurse as soon as you have completed the above. Your child will be rechecked, and you will be asked about the treatment methods used. If treatment does not appear satisfactory, he/she will not be readmitted to school.

Thank you for your cooperation.

School Nurse / Staff person:

Telephone Number:

.....

Please bring your child to school and check in with the nurse when you have completed treatment. Additionally, please complete the following and bring it to the school office when your child returns to school.

Child's Name

Date

Parent's Signature

Name of Treatment/Shampoo Used

Sample Letter to Parent/Guardian (Spanish)

[SCHOOL DISTRICT LETTERHEAD]

Fecha:

DIRIGIDA A LOS PADRES DE: _____

Al llevar a cabo el examen sistemático en la escuela, a su niño(a) se le encontró que tiene piojo en la cabeza. El piojo en la cabeza es algo muy común entre todos los niños en los Estados Unidos. El largo del cabello no influye en la infestación. El piojo en la cabeza no significa un daño mayor para la salud. El piojo se propaga por contacto directo con individuos infestados o por medio de contacto indirecto con sus artículos personales tales como los peines, cepillos y sombreros.

Para prevenir la propagación de piojo en la escuela, esta condición deberá ser tratada de inmediato. Antes de que su niño(a) pueda regresar a la escuela, usted deberá:

- Tratar a su niño(a) con la medicina apropiada (consulte con su doctor o farmacéutico para los tratamientos recomendados)
- Quite todos los huevillos (liendres) de los cabellos de su niño(a) con un *head lice comb* [peine para liendre en la cabeza] (que se encuentra disponible en las farmacias)
- Dé consejo a su niño(a) sobre la manera por la cual el piojo se propaga y, la forma por la cual se puede prevenir el piojo en la cabeza.

Favor de traer usted a su niño a la escuela y ver a la enfermera al llegar, tan pronto cumpla todas las instrucciones arriba proporcionadas. Su niño será revisado nuevamente. Se le harán a usted preguntas sobre los métodos de tratamiento que utilizó. Su niño(a) será nuevamente admitido cuando la enfermera determine que el tratamiento ha sido concluido satisfactoriamente.

Gracias por su cooperación.

Enfermera de la Escuela: _____ Número de teléfono: _____

Favor de proporcionar la información siguiente para los registros de la escuela. Deberá traer esta forma consigo al regresar a su niño(a) a la escuela nuevamente.

Nombre del niño(a)

Fecha

Firma del padre o tutor

Nombre del tratamiento o champú que usó

TEACHING TOOLS & RESOURCES

Pamphlets and Brochures

Recommendations for the Prevention and Control of Communicable Diseases in a Group Care Setting: Includes Communicable Disease Chart for Schools and Child Care Center, Stock No. 6-30 (7-95)

25 Most Frequently Asked Questions About Head Lice; Stock No. 1-29 (12/88)
(Available in English or Spanish)

To order 50 or less of the above, contact the TDH School Health Program at (512) 458-7700, or make requests by mail to: Texas Department of Health, Bureau of Children's Health, School Health Program, 1100 West 49th Street, Austin, Texas 78756.

To order in bulk (50 or more), complete an order form at the TDH Forms and Literature website at: <http://www.tdh.state.tx.us/mamd/litcat/default.asp>. Or, contact the TDH Warehouse at (512) 458-7761

Video Resources

TDH Audiovisual Library has numerous educational videos on prevention and treatment of head lice. To see the selection and/or borrow videos, contact the TDH Audiovisual Library at (512) 458-7260, or access their website at: <http://www.tdh.state.tx.us/avlib/avhomepg.htm>.

Internet Resources

TDH School Health Program Website: www.tdh.state.tx.us/schoolhealth contains a copy of this booklet as well as links to other resources for head lice prevention and treatment.

Additional Resources

(The following resources are provided to school personnel and health professionals as a service to assist with their efforts to develop a district or community program for the management of pediculosis. Inclusion or omission from this list should not be interpreted as either an endorsement or a rejection. Before using any materials such as pamphlets, videos, or products, school staff should preview them to ensure they are consistent with their local policy and state guidelines.)

The National Pediculosis Association: www.headlice.org

PO Box 149, Newton, MA 02161; (617) 449-6487 or 1(800) 446-4NPA (reporting line)

Source for current research and periodicals on head lice prevention and treatment

Order form for the steel toothed *Licemesiter* nit-comb.

School Health Corporation: (512) 295-9950

Southwest Region Office, 320 Oak Forest Cove, Buda, TX 78610

Source for current educational materials and products for head lice prevention and treatment.

Texas Health and Safety Code Chapter 38 - Pediculosis of Minors

§ 38.001. Program Established

(a) The department shall establish and develop a state program for the control and eradication of pediculosis of minors.

(b) The program may include procedures for detection of pediculosis and instructions for treatment

Acts 1989, 71st Leg., ch 678, § 1, eff. Sept. 1, 1989

§ 38.002 Treatment of Minor Who Has Pediculosis

For the purpose of treating a minor who has pediculosis, the parent or guardian of the minor shall:

- (1) follow the instructions of the department; or
- (2) place the minor under the care of a licensed physician

Acts 1989, 71st Leg., ch 678, § 1, eff. Sept. 1, 1989

National Association of School Nurses

POSITION STATEMENT

Nit Free Policies in the Management of Pediculosis

History: Surviving since prehistoric times, head lice (pediculosis capitus) are small parasitic insects that live on the scalp and neck hairs of their human hosts. Adult female lice prefer to attach their eggs (nits) to the base of a hair shaft.

Description of Issue: Families and school staff expend innumerable hours and resources attempting to eradicate infestations, expending equal efforts on live lice and their nits.

Rationale: Rarely, if ever causing direct harm, head lice are not known to transmit infectious disease person-to-person. Furthermore, current research does not support the conclusion that enforced exclusion (nit free) policies result in reduced transmission of head lice.

Conclusion: It is the position of the National Association of School Nurses that nit-free policies disrupt the education process and should not be viewed as an essential strategy in the management of head lice.

References:

Centers for Disease Control Fact Sheets.

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