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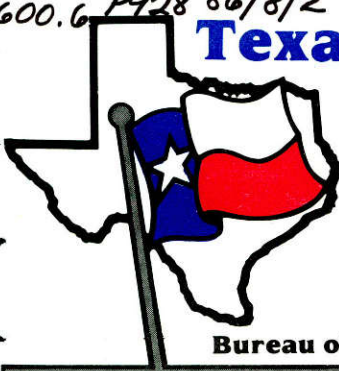
NON-CIRCULATING

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TEXAS STATE DOCUMENTS

# Texas Preventable Disease

# NEWS



Ron J. Anderson, M.D. Chairman  
Texas Board of Health  
Robert Bernstein, M.D., F.A.C.P. Commissioner

### contents:

- Recommended Guidelines for Identification, Treatment, and Control of Head Lice in School Populations
- Average Annual Incidence Rate per 100,000 Population, Rocky Mountain Spotted Fever, 1981-1985

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## RECOMMENDED GUIDELINES FOR IDENTIFICATION, TREATMENT, AND CONTROL OF HEAD LICE IN SCHOOL POPULATIONS

Adequate control of head lice depends on education about the problem for school personnel and parents, inspection of students and separation of affected children from school until treated, and the practice of certain measures to prevent transmission from one child to another.

### General Considerations

Written information concerning the identification and treatment of head lice, as well as the school board policy regarding head lice infestation, should be distributed to parents at the beginning of each school year. The Texas Department of Health has available the brochure, *25 Most Frequently Asked Questions About Lice* (Stock # 1-29), and the bilingual leaflet (English/Spanish), *Instructions for Controlling Head Lice in Your Home* (Stock # 1-32). These materials may be obtained through the TDH Literature and Forms Unit for distribution to school personnel and parents, or schools may develop their own, utilizing these guidelines. Information concerning head lice should also be included in the school health curriculum.

Written policies and procedures regarding specific responsibilities and recommendations will facilitate the handling of head lice infestations. In most cases, an outbreak will require cooperation and coordination between the health department, physicians, and the schools; therefore, these policies should be developed jointly.

It appears that the major problem encountered in "outbreaks" of head lice -- especially in schools -- is not the actual lice infestation but the accompanying myths and unfavorable connotations. Any efforts by medical, public health, and school health personnel to dispel these myths would be helpful in controlling the emotional response to this situation. Head lice occur in all socioeconomic levels regardless of age, sex, or standards of personal hygiene.

### Identification

When screening children for possible infestation, be alert to the symptom of intense itching, although this is not always present. With excessive scratching, secondary infections may occur. Being careful to preserve the dignity and privacy of students, look for nits or lice at the nape of the neck and behind the ears. If any are found, the student should be sent to the school nurse or other trained examiner for further evaluation. During screening, the examiner should be sure to wash hands between the examination of each child.

In an active case of head lice, nymphal or adult lice (1 to 2 mm long) are present, or grayish-white, oval eggs (about 0.8 mm x 3 mm) are found firmly attached to the hair shaft near the scalp. Eggs (nits) farther than 1/4 to 1/2 inches from the scalp have either hatched or are infertile and will never hatch. Such a case, therefore, is not considered active unless nymphal or adult lice are present.

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**Treatment**

If possible, keep the student in the office or health room until a parent or guardian can come. Otherwise, keep the student from close personal contact with others, and notify the parent of needed treatment. Explain to the parent the condition and methods of treatment; how to identify head lice among the family members; and how to disinfect bedding, personal articles, clothing, and the home. Encourage the family to think of situations, in addition to school, where the child may have become infested so that community sources of head-lice infestation also may be eliminated (ie, day care, baby sitter, Sunday school, relatives, and friends).

**Individual Treatment**

1. Remove all clothing.
2. Apply a pediculicide to scalp according to label directions, taking precautions to prevent medication from getting in eyes or on skin other than the scalp, to reduce irritation and absorption of pesticide. Care should be taken to thoroughly rinse the pediculicide out of the hair after it has been left on the specified period of time.
3. Put on clean clothing.
4. Change bed sheets.
5. Repeat treatment in 7 to 10 days, as pediculicides do not kill all of the nits. This second treatment will kill newly hatched lice in the nymphal stage before they can lay eggs. After the second treatment, remaining nits will not be viable as they have either hatched or are infertile. These two treatments are all that are necessary unless there is reinfestation. Overuse of pediculicides may cause a dermatitis or result in absorption of pesticide.
6. A variety of medications are effective. Lindane (Kwell®) is not recommended for infants, young children, and pregnant or lactating women. A major problem with lindane shampoo is that it is often misused, by dilution with water, with loss of effectiveness.

One recent study showed that 0.5% malathion lotion (Prioderm Lotion® - no longer marketed) was the most effective pediculicide, followed by the over-the-counter pyrethrin preparations (RID®, R&C Shampoo®, A-200®) and then by lindane shampoo (Kwell®).<sup>1,2</sup> Mean killing times for head lice (time necessary for lice to die following treatment) ranged from a mean of 4.4 minutes for malathion lotion and 10.5 to 22.5 minutes for the pyrethrin preparations to 190.2 minutes for lindane shampoo. All products except malathion lotion left more than one fifth of the eggs viable after treatment. In order to kill viable nymphs, retreatment in 7 to 10 days is mandatory.

7. Removal of nits is not necessary to provide a cure and is often difficult for parents to achieve. No controlled studies have shown that a "no-nits" school policy improves control efforts during outbreaks of head lice. Removal of nits, however, does have potential benefits in the elimination of viable eggs that may hatch in the seven days prior to second treatment. These nymphs, however, are immature and, thus, are incapable of reproduction prior to the second treatment.
8. Itching may persist for a few days, but is not cause for retreatment unless new nits or live lice are found.

**Care of Clothing and Personal Articles**

All washable clothing, towels, and bed linens used by the infested individual within the last ten days should be machine washed in hot water (135°F) or dried at high heat for at least 20 minutes. Dry clean non-washables or seal them in a plastic bag for two weeks. Treat other clothing that has come in contact with the clothing worn by the person with lice (ie, coats in a



closet) by one of the above methods. Soak combs and brushes for one hour in the pediculicide or a 2% Lysol solution, then rinse them thoroughly.

### Home Disinfestation

Thoroughly vacuum mattress, carpets, upholstered furniture, and car upholstery. Damp wipe all surfaces to remove loose hair that may have attached nits and dispose of cleaning cloth. Fumigation or spraying is no more effective in pediculosis control than vacuuming and increases the potential for needless insecticide exposure; it is also a costly practice.

### School Disinfestation

Thoroughly vacuum carpets and school buses, damp wipe all surfaces to remove loose hairs that may have attached nits, and dispose of cleaning cloth. Fumigation or spraying is no more effective in pediculosis control than vacuuming and increases the potential of needless insecticide exposure.

### Control

If one case is found, that student's friends and siblings should be examined. If several cases are found, the entire classroom should be examined. If a substantial number of children in several classrooms are involved, the entire school population should be examined. If the inability of the students' families to buy the pediculicide is a problem, the school system should formulate a policy for the handling of such cases, taking the law and community resources into consideration. Schools containing siblings of students found to have head lice should be notified.

### Prevention of Transmission

Students should be taught the facts of head lice infestation, treatment, and transmission and be encouraged to take personal hygiene precautions. As long as one or more students in the class have head lice, all hats, coats, and resting mats should be stored separately. This may be accomplished by: 1) assigning individual lockers to students; 2) assigning coat hooks ten inches or more apart to each student; 3) letting students hang their coats on the backs of their seats; 4) storing caps and scarves separately or letting students keep them at their desks; or 5) sealing hats, scarves, coats, and resting mats in separate, labeled plastic bags. 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. Dress-up clothes that may be shared by students in play activities should be treated as above or eliminated from the classroom.

The control of head lice infestation is a community problem that requires the involvement of the schools, physicians, parents, and the local public health authorities. Education of school personnel and others involved can contribute to the early detection and control of this problem.

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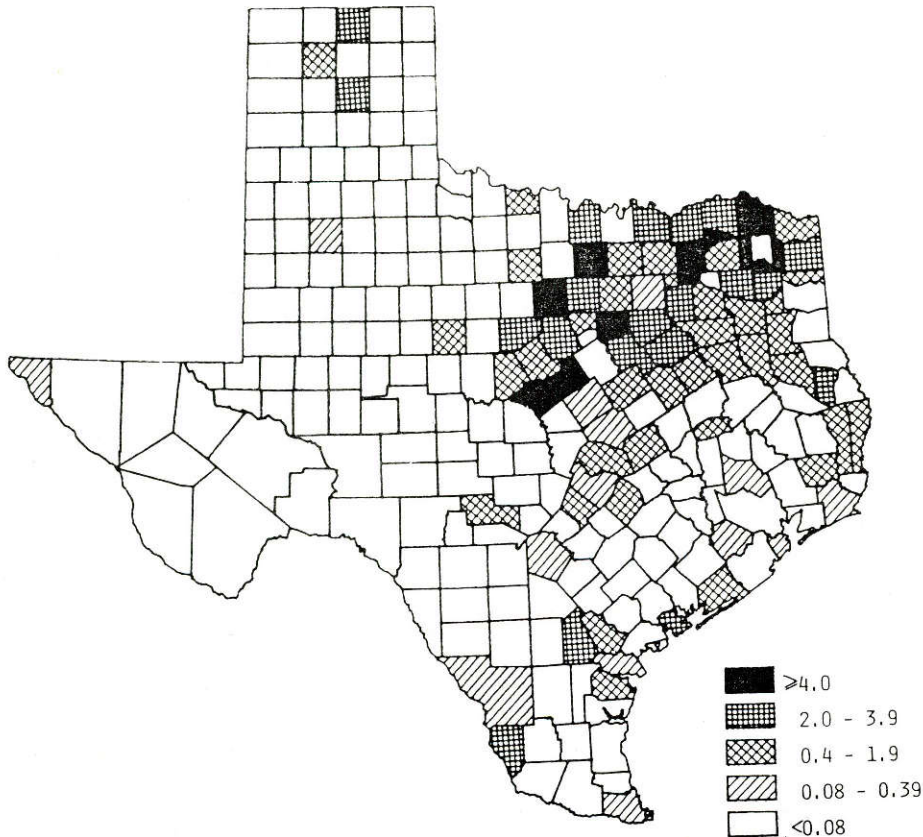
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1. Meinking TL, et al. Comparative efficacy of treatments for pediculosis capitis infestations. Arch Dermatol 1986;122:267-71.
2. Altshuler DZ, Kenny LR. Pediculicide performance, profit, and the public health. Arch Dermatol 1986;122:259-61.

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### AVERAGE ANNUAL INCIDENCE RATE PER 100,000 POPULATION, ROCKY MOUNTAIN SPOTTED FEVER, TEXAS, 1981-1985

The average annual incidence rate for Rocky Mountain spotted fever from 1981 through 1985 was 0.4 cases per 100,000 population. The eleven counties shaded totally black had incidence rates ten times higher than the state average.



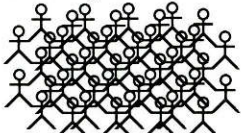
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