

A modern scourge: "Parents scratch their heads over head lice"

Beverly Carter's trial by head lice began when a niece, visiting her Houston home, unwittingly passed the parasite to three of Carter's four children.

Carter embarked on an all-night frenzy of insecticidal shampooing, hair-combing, vacuuming, laundry, comb sterilization, and bagging of stuffed animals. That, she assumed, was the end of it.

But no. Three days later, her daughter was sent home from day care with lice. Carter found new louse eggs on the other two children as well. She went through the whole drill again (using a different brand of shampoo). But the next night she found still more eggs.

"I am at the end of my rope," she said in the midst of this. "I have already cut all of our hair short, and all that is left is to shave everyone bald."

Parents all over America will nod their weary heads in recognition. Once relatively uncommon and the subject of giggles and whispers, head lice are now a common childhood affliction—and their eradication is an often frustrating chore.

Insecticidal shampoo costs as much as \$10 a dose. Thorough head inspections can take hours. Housecleaning and laundry take hours more. The kids often can't return to school without passing a louse-egg inspection. And if the bugs come back, parents don't know whether to blame themselves, the shampoo, or the children. It doesn't help that advice coming from school nurses and family doctors is too often incomplete or outdated. (Some still recommend shampoos containing lindane, a needlessly risky compound whose ban we have long sought.)

Millions of cases

Head lice have become more the norm than the exception in elementary schools, child-care centers, and day camps. During the last school year, nearly 80 percent of

school districts had at least one lice outbreak, according to Surveillance Data Inc., a Pennsylvania firm that surveys school nurses every week. An estimated six million elementary-school students—one in every four—actually had lice. Adding siblings and parents, roughly 10 million Americans are hosts to head lice each year.



And the lice are gaining ground. Nurses, pediatricians, parents' groups, and the nation's tiny band of lice researchers say it's harder than it used to be to get rid of lice. In December, lice became so entrenched at one elementary school in Longview, Washington, that it was closed for a daylong mass delousing of students and their families.

U.S. consumers spent nearly \$100 million on lice remedies in 1996. Add to that the cost of time lost from work while caring for and cleaning up lice-infested kids.

Bug basics

Although cases of lice are now more numerous than chicken pox, there's been virtually no recent research on lice control or transmission. One reason: Lice are so exquisitely adapted to life on the human scalp that researchers can't raise them in a lab. To keep them alive for experimentation, scientists

tape tiny louse houses to their own skin to give the lice access to their only source of nourishment—human blood. So what little is known about the effectiveness of various treatments comes as much from anecdotal reports as from hard research.

A new infestation starts when a female louse crawls aboard a child's head, either off the head of another child or from recently infested clothes, brushes, or furniture. (Lice can neither hop nor fly.) Then she starts laying eggs, or nits, along with a glue that firmly attaches them to hair. An adult female can deposit 6 to 10 nits a day. In a week or so the nits hatch, and the newborn lice, or nymphs, take their first meal.

A child with a first case of lice often won't notice anything for four to six weeks. That's how long it takes for the immune system to develop a sensitivity to louse saliva and produce intense itching. By then, several generations may be in residence.

The two-millimeter-long, pale gray lice are so elusive that they are almost impossible to spot. The tiny pearly oval nits are more obvious but can be confused with dandruff and other debris.

Personal hygiene has no bearing on susceptibility to lice, no surprise considering that lice are capable of surviving 24 hours' immersion in water. In this country, about the only protection is being of African descent. North American lice can't get a good grip on the tightly curled oval hair shafts that most African-Americans have. (Lice in Africa, on the other hand, have evolved to grasp oval hair shafts; there, it's straight-haired Europeans, with their round hair shafts, who are immune.)

Fortunately, there's no evidence that head lice transmit disease. But a child with a severe infestation will be distracted and uncomfortable from the itching and may develop swollen lymph glands in the neck and secondary scalp infections from scratching.

The limitations of shampoos

The main source of information for most parents coping with a first-time lice outbreak is the school nurse. We collected samples of the information that goes home, from 23 nurses' offices nationwide. Most handouts concentrated on use of lice shampoo; many included material from one shampoo maker or another steering parents to that brand.

Some nurses simply advised parents to consult their family physician for instructions. That might not help much. Though some physicians are knowledgeable, says Dr. Tom Bell, a county health officer in Washington state, "most doctors don't want to deal with it. It's not glamorous." The Merck Manual, a standard reference for physicians, mentions no treatment other than a lice shampoo.

But shampoo is only the first step. Far more vital to a permanent cure is the tedious business of daily nit removal.

Here's why. Over-the-counter lice shampoos contain insecticides—the same ones exterminators spray on termites and cockroaches, but fairly safe to use on people. Most, including Rid and A-200, contain pyrethrum, a natural botanical pesticide. The best-selling brand, Nix, contains permethrin, a long-lasting synthetic version of pyrethrum.

Those insecticides do kill most lice, but not nit. Because permethrin

remains active for a week or so, the label on Nix claims it can kill adult lice immediately and the nymphs when they hatch days later. Pyrethrum breaks down within hours and must be applied again a week later to kill newly hatched lice.

But lice, it seems, may have begun to develop pesticide resistance. "There have been thousands of anecdotal reports of treatment failures," says Richard J. Pollack, an entomologist at the Harvard School of Public Health, who is part of a team now studying lice resistance in the United States. Resistance has already been documented in Europe and Israel.

"It's not a surprise," observes Susan Aronson, a Pennsylvania pediatrician who has created a lice-control program for child-care providers. "Resistance is quite common with insects of all kinds. The more pesticides are used, the more resistant we can expect the insects to become."

Recommendations

If you are fighting a case of head lice, buy an over-the-counter lice treatment—the cheapest brand will do—and apply according to package directions. The pyrethrum shampoos should be applied to dry hair; wet lice won't absorb the insecticide as well. If using Nix, first use a shampoo that does not contain creme rinse,

and thoroughly towel-dry the child's hair. That may mean using more than one bottle. Keep it out of the eyes to avoid irritation.

If the treatment doesn't kill all the lice, don't apply it a second time; if the lice are resistant, it won't do any good. But don't panic. Your vital next step—to find and remove every nit from your child's head—is the more effective measure. "The bottom line is to comb and comb and comb," says Dr. Aronson. "Mechanical removal is more certain than chemical killing."

The child should be made comfortable (try a video) under a bright light. If you suffer repeat infestations, consider buying a swing-arm lamp with a built-in magnifying glass.

Inspect the hair in small sections. Nits can be removed either with the fingernails or with a special fine-toothed nit comb. Many parents find that the plastic combs that come with the shampoos don't work. Sturdier metal combs are available at most drugstores. The National Pediculosis Association (781-449-NITS) sells a new metal comb its call the Lice Meister, with a larger handle and longer, tapered teeth, that it claims glides more smoothly through the hair. It has sold about 100,000 of the \$15 combs just since September. Our suggestion: Straighten the hair with

a wide-tooth comb, then choose whatever comb removes the nits and hurts the least. Some products, and dilute vinegar, are said to loosen nit glue, but they won't make combing unnecessary.

Repeat this ritual every night for a few weeks, to make sure you've found every nit, including new ones laid by any live lice that you can't see. That's what Beverly Carter believes finally ended her family's attacks. She removed nits for two weeks, and eventually they were all gone. It's also a good idea to reinspect every week or so as long as the child is at risk.

To prevent reinfestation, concentrate on cleaning or vacuuming anything the child's head may have contacted within the previous few days. Washing, soaking, or drying items at temperatures above 130 degrees Fahrenheit will kill stray lice and nits. Check everyone else's head. To prevent reinfestation at school, remind your child not to share combs, hair ornaments, or hats. Also instruct your child to store jackets in a large backpack or plastic bag rather than on a communal hook.

Articles and information reprinted from Westside Elementary School's School newsletter.

Important things to know about head lice

Head lice. Just thinking about them makes your head itch. For up to 12 million Americans each year, mostly children, it's more than a passing sensation. In fact, other than the common cold, more children get head lice than all other communicable childhood diseases combined.

The most important things to know about head lice are that anyone can get them, and that, if your child does, it is absolutely essential to inform the school and the parents of his/her playmates. Beyond those two key facts, here's an introduction to dealing with these blood-sucking parasites.

Where do they come from?

You can catch head lice either directly or indirectly from another person. If two people are in head-to-head contact, the lice can travel directly from one head to the other. Usually, however, the "transfer" is made through contact with something that an infested person's head has touched.

Sometimes, it's not good to share: Teach your children never to share—or borrow—anything that touches the head or hair, including earphones, pillows, scarves, hooded jackets, combs, brushes, hair bows, barrettes, ponytail holders, combs, costumes, towels, hats and other headgear. Role-play with them what to say: "I'm sorry, but I'm not allowed to share my..."

Clean or dirty doesn't matter: Lice actually prefer

clean hair, so frequent bathing and short haircuts are no help, nor are shampoos designed to fight dandruff or other scalp conditions.

Preventive treatment doesn't work:

Don't be fooled into thinking that you can avoid "catching" head lice by using an anti-lice treatment before any lice have been found. These products are effective only as treatments, not preventatives.

Play detective:

Intense head scratching is usually the first clue that lice have come to visit. For proof, use a magnifying glass to look for tiny red bite marks on the scalp or neck, or sesame seed-sized lice eggs,

called nits, "glued on" to strands of hair. (If it looks like dandruff, but won't "flake off"—or even budge—it's probably a nit.)

Call the school immediately:

Many schools insist that children stay home until free of nits.

Multi-step treatment:

Treating head lice is tedious, but to succeed you have to follow every step to the letter. Here's a quick overview.

- Talk to your family physician about what lice-killing product to apply, when and how to use it.

- Buy a special nit comb and use it daily to "nitpick" each affected person's hair.

- Thoroughly vacuum, hotwater wash, dry-clean, or seal in a plastic bag for two weeks everything that could have come in contact with the infested person's head.

- Re-treat the hair and scalp a second time, 7-10 days after the first treatment. Continue daily monitoring for nits until your family is lice- and nit-free.

Avoid "Old time" cures:

Children have suffered horrific, and sometimes fatal, burns from "treatments" with gasoline or kerosene. Vaseline treatments don't effectively smother the lice—and then you have to get the petroleum jelly out.

Don't keep it a secret:

Sure, it's embarrassing to notify others that your family is dealing with lice, but it's not a social disgrace. Think of it like those other "bugs" that people pass to each other, like colds and flu. The sooner you let people know they've been exposed, the better able they'll be to deal with it promptly and effectively—and the less likely you'll catch it from them later.



Remedies to avoid

There's no shortage of advice about what to do about head lice. But much of it is unproved, dubious, or even dangerous.

- **Whole-house clean-ups.** Off the head, adult lice can't survive for more than a day or two. And nits attached to shed hairs will die within hours of hatching if they can't find a meal. So there's no point in cleaning every nook and cranny.

- **Pesticide sprays.** Commercial lice sprays and home fumigation are usually unnecessary and not worth even the small health risk.

- **Olive oil, tea-tree oil, margarine, mayonnaise.** The Internet abounds with claims for various oil-based treatments. White it's true that lice will die after many hours' immersion in oil, there's no reliable proof this will happen on someone's head. (On the other hand, the oil may make it easier to comb in search of nits.)

normal shampoo; the multiple applications of strong detergents required to get rid of it may end up irritating the scalp more than the original lice infestation.

- **Head shaving.** Some parents resort to this desperate remedy. It's needlessly upsetting to the child, however, and really shouldn't be necessary with careful nit removal.

- **Lindane.** Consumers Union petitioned the Food and Drug Administration to outlaw this neurotoxic, possibly carcinogenic pesticide as a lice treatment 16 years ago. It's still on the market as a prescription drug for lice despite reports of seizures and even deaths from improper use. Our sample of 23 school-nurse letters included four that listed this product as acceptable. It's not. If your doctor prescribes it (and many still do), throw the prescription slip away. Besides, it is not as good at killing lice as the over-the-counter products.

- **Gasoline or kerosene.** These folk remedies kill or maim a few children each year when the volatile fumes accidentally ignite. Even if they were effective lice-killers (they're not), these substances should never be applied to their hair.



News from the Health & Wellness Center: Pharmacy update



by Grace Cho

If you have visited the pharmacy lately you probably noticed a few changes. We still provide patients with quality pharmacy care, but have recently enhanced our services by adding new blood pressure devices, a scrolling message line outside the pharmacy stating the approximate waiting time for prescriptions and handouts on all medications. The most visible change, however, is the addition of three new pharmacists within one year. Hal Martin, Mark Strong and myself Grace Cho. Our pharmacy staff consist of four pharmacists and two technicians: our fearless leader Hal Martin, the quirky Mark Strong, who religiously tells patients to drink plenty of water to the point where both eyes start bobbing and the gracious Sandy Shipp, who recently became the proud mother of Adam Shipp. Our phar-

macy technicians are Mariann Smith, who just celebrated here nineteenth anniversary with IHS and the lovely and every cheerful Martha Winishut.

Pharmacy hours are Monday, Tuesday, and Thursday 8 a.m. to 8 p.m.; Wednesday 1 to 8 p.m. and Friday 8 a.m. to 5 p.m.

Pharmacy Hotline for fast and accurate service on refills, please utilize our pharmacy hotline at 553-2475. When leaving your prescription refill request, leave your name and the names of the medications requested. Also include your telephone number so we can reach you if needed. Please allow us 24 hours for refills. The hotline is checked twice daily.

Medication Pickup. Please pick up your medications promptly after requesting refills. After five days, our pharmacy staff reviews all medications that have not been retrieved and either restocks them or contacts patients with friendly reminders. This is done for practical reasons to reduce overstock in the pharmacy as well as to ensure that patients are taking their medications correctly.

Allergy season is soon approaching. Be prepared this season by knowing the symptoms of allergies and what you can do to minimize discomfort. Caused by various pollens and mold spores, most seasonal al-

lergies are characterized by sneezing, runny nose, and itchy and watery eyes. Symptoms may be more intense in the morning and on windy days because of increased pollen in the air. Patients may also suffer from year-round allergies which are mainly due to house dust mites and household pets. To determine whether your allergies are seasonal or year-round, note the times when your allergy symptoms appear and disappear. One method of treating seasonal allergies is to avoid the allergens. Although total avoidance is difficult, driving or sleeping with closed windows may decrease contact with pollen. Antihistamines may also be used to relieve allergy symptoms. Over-the-counter antihistamines that we stock in the pharmacy are diphenhydramine, chlorpheniramine and he combination product Actifed which includes an antihistamine as well as a decongestant. OTC antihistamines, however are not without precautions and side effects. The major side effect is drowsiness which may be enhanced by alcohol as well as prescription medications. Antihistamines may also produce dry mouth, blurred vision, urinary retention and constipation. Patients with enlarged prostate should not use OTC antihistamines because of possible urinary retention. Nasal deconges-

tants may also be used to relieve stuffiness but should be restricted to use for 3 to 4 days to minimize rebound congestion. We stock the generic equivalent to Afrin in the pharmacy. Decongestants can be taken orally but may increase blood pressure and cause insomnia. To determine which medication are appropriate for you, talk to your pharmacist or other health care provider.

Troglitazone: Blood Tests Required. Patients with diabetes who are currently taking troglitazone may wonder about the blood tests that accompanies their medication. The blood tests check for elevated liver enzymes indicative of liver dysfunction, a rare but serious and potential complication of troglitazone. These tests need to be performed monthly for the first eight months while on troglitazone, then every two months for four months then quarterly. Patients should report any of the following symptoms to their physician: yellowing of the skin (jaundice), fatigue, dark urine, lack of appetite, nausea and vomiting.

Pharmacy Survey. The pharmacy is conducting a survey that evaluates our performance and services. Please complete a survey located in either counseling rooms and return them to the box located outside the pharmacy labeled "Pharmacy Survey". Your input is greatly appreciated.

Nathan's Business Services has just changed their tax services name and phone number to YENCEN Tax Services. Electronic filing and refund anticipation loans are being offered among *No cash needed, *Receive your refund loan in just days, *Tax preparation available & *Direct deposit. For further information they can be located at 2122 Warm Springs Street or phone (541) 553-9246 or 553-9247.

Briefing to focus on questions

The Northwest Power Planning Council and the National Marine Fisheries Service will jointly host a technical discussion of the PATH analysis of salmon survival in the lower Snake and Columbia rivers on February 25, 1999 from 9 a.m. to 3 p.m. at the Central office, Northwest Power Planning Council, 851 SW Sixth Avenue, Suite 1100; Portland, OR 97204.

The meeting will provide the opportunity to discuss technical questions and issues related to the analysis of fish recovery options by the PATH process. It will focus primarily on questions relating to the assumptions, analytical techniques and

results of the PATH analysis. It is not intended to address policy application of these results.

Format Because there is a limited amount of time allotted to the meeting, the Council and NMFS may need to prioritize or group questions and issues to arrive at a manageable number, but this is not intended to preclude questions or prevent an informative discussion.

The briefing will focus primarily on questions and issues submitted in advance. Persons interested in submitting questions for consideration should them by February 4, 1999 to: John Palensky, National Marine Fisheries Service, 525 NE Oregon, Suite 50; Portland, OR 97232.