



The "Heads Up" on Head Lice

A Fact Sheet for School Nurses

Pediculosis, or head lice, as many of you know, is a condition by which live lice inject small amounts of saliva and remove small amounts of blood from the scalp every few hours¹. Generally found on the scalp, around the ears and at the nape of the neck, the adult louse is about the size of a sesame seed and can be a reddish brown color². Eggs, or nits, are smaller and are silver in color³.

Signs and symptoms of pediculosis

- The most common symptom is head scratching caused by sensitivity to the louse's saliva¹, although red bite marks may also be noticed².
- Because of the small size of head lice and their resemblance to dandruff, it is not uncommon for patients to receive a delayed diagnosis or misdiagnosis. Diagnosis is usually made on the basis of symptoms and confirmed through the identification of a live louse on the head. Identification of a nit is not confirmation of a live infestation⁶.
- Dead eggs and the remnants of hatched eggs remain firmly glued onto the hair for weeks, months, or even years⁴.
- Embarrassment and social stigma frequently accompany identification of an infestation⁶.

Prevalence

- Each year approximately 6 to 12 million children between 3 and 12 years of age are infested with head lice^{1,5}.
- About one in every 100 U.S. elementary school children will be infested with head lice.

How is pediculosis spread?

- While lice are not considered an infectious disease, transmission from one individual to another can occur during direct contact or through the sharing of personal items such as hats, helmets, brushes or combs¹.
- Lice are "equal opportunity" parasites. They infest all socioeconomic groups, races, genders and ages, but are more commonly found in children due to their close contact with each other¹.
- Infestation can occur throughout the year, although a peak is generally experienced during summer and back-to-school time periods².
- Lice are not a sign of poor hygiene and they do not transmit disease.

Treatments

- Traditional treatments for head lice include nit picking with a fine-tooth comb, over-the-counter and prescription products, and home therapies. Nit picking takes time and patience, while many products contain a pesticide that can be neurotoxic when used inappropriately. These products are safe and effective but like all medical treatments, they must be used as directed and with caution by parents. Also, studies have shown that head lice are learning to outsmart many neurotoxic pesticides and are developing resistance to these products, in much the same way that some bacteria have developed resistance to antibiotics^{2,3}.

- The U. S. Food and Drug Administration (FDA) recently approved the first and only prescription medication that kills head lice by asphyxiation without potential neurotoxic side effects. Lice breathe through sophisticated spiracles that close upon contact with most liquids, allowing the louse to go into suspended animation and survive for hours without respiration. The product's unique mechanism of action, as suggested by in vitro studies, prevents lice from closing their spiracles thus allowing asphyxiation to occur.

What can you do to help?

- Educate the school community, including parents and teachers, regarding head lice management. As the school nurse, you are ideally suited to provide guidance on this health issue.
- If you suspect that a student has head lice, advise his or her parents and encourage them to speak with their health care provider.
- Do your part to dispel myths and stigmas regarding lice infestation. The condition is not a sign of poor hygiene and head lice do not transmit disease.
- In an effort to decrease head lice infestations, many U.S. schools have adopted a "no nit" policy⁶. It is the position of the NASN that "pediculosis should not disrupt the education process. Children found with live head lice should be referred to parents for treatment. Data does not support school exclusion for nits⁶ (July 2004)." You have an important role here in safeguarding the education of every child while managing any case of head lice infestation in your school.

- 1 Frankowski, B.L.; Weiner, L.B, the Committee on School Health, the Committee on Infectious Disease (September 2002). American Academy of Pediatrics Clinical Report: Guidance for the Clinician in Rendering Pediatric Care: Head Lice. *Pediatrics*, 110 (3).
- 2 Head Lice Control. Beyond Pesticides/NCAMP fact sheet.
- 3 Hansen, R.C (September 2004). Overview: The State of Head Lice Management and Control. *Am J Manag Care*, 10, S250-S263.
- 4 Pollack, R.J. The Role of the School in Battling Head Lice. *Our Children Magazine*
- 5 Williams, L., Reichert, A., MacKenzie, W., Hightower, A., & Blake, P. (2001). Lice, nits, and school policy. *Pediatrics*. 107(5). 1011-1015.
- 6 National Association of School Nurses Position Statement. (www.nasn.org)

Photo Credit: Vincent S. Smith, Natural History Museum, London



School and
Community
Resources to
Avoid and
Take
Control of
Head Lice

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Head Lice: A Real Head Scratcher

Fact Sheet for Parents



Each year approximately 6 to 12 million children between the ages of 3 and 12 years of age are infested with head lice.¹ While the odds of your son or daughter developing head lice are relatively small, the following includes useful information on how to spot and treat this condition.

What are head lice?

Head lice are small parasitic insects that survive by removing small amounts of blood from the scalp every few hours.¹ Generally found close to the scalp, primarily around the ears and at the back of the neck, the adult louse is about the size of a sesame seed and can be the color of your child's hair.¹ Eggs, or nits, are smaller and are silver in color.¹

What are the symptoms of head lice?

The most common symptom of head lice is itching caused by an allergic reaction to the louse saliva. There may be redness or sores caused by scratching. Your child may be irritable and experience sleeplessness.²

How common are head lice?

About one in every 100 U.S. elementary school children will be infested with head lice in any given year.³ Infestation can occur throughout the year, although a peak is generally experienced during summer and back-to-school time periods. Girls are more likely than boys to become infested because of sharing personal hair items.¹

How do you get head lice?

Lice are "equal opportunity" parasites. They infest all socioeconomic groups, races, genders and ages, but are more commonly found in children due to their close contact with each other.¹ While head lice are not considered an infectious disease, spread from one child to another can occur primarily through direct head to head contact or secondarily through the sharing of personal items such as hats, scarves, helmets, brushes, combs or pillows.¹ It is important for you to know that lice are not a sign of poor hygiene and they do not spread disease. If someone in your child's class at school develops head lice, there is no reason to panic and automatically assume that your child will "catch" head lice.

How do I know if my child has head lice?

Diagnosis of head lice is made on the basis of symptoms and confirmed through the identification of a live louse on the head. If your child is scratching his or her head, and you see red bite marks, sores, lice or nits on their scalp, he or she should be examined by a medical professional.³

How do I prevent head lice?

While preventing head lice entirely can be difficult, children should avoid head to head contact during lice outbreaks. Secondly, parents should discourage their children from sharing personal items such as hats, scarves, headbands, helmets, brushes, combs or pillows to decrease the likelihood of spread from one person to another. All recently worn clothing, hats, bedding, and towels used by anyone having lice or thought to be exposed to lice can be washed in hot water (130°) or dry cleaned. Personal care items such as combs, brushes and hair clips should also be washed in hot water. Toys such as stuffed animals can be placed in a hot dryer for 30 minutes or in a plastic bag for 2 weeks.⁴

How can I treat head lice?

Treatments for head lice include:

- Over-the-Counter (OTC) products
- Prescription products
- Alternative therapies — natural and herbal. These products have not been proven effective and are not regulated by the Food and Drug Administration (FDA).^{5,6}
- Nit picking (hair combing) with a fine-tooth comb is often used to remove the nits (eggs) from the hair. Combing takes time and patience. While it may remove the eggs or empty shells, alone, it is not considered an effective treatment for head lice.⁶

Many approved products are safe and effective but like all medical treatments, they must be used as directed by parents. Also, studies have shown that head lice are learning to outsmart many pesticides and are developing resistance to OTC pyrethrin and pyrethroid products, in much the same way that some bacteria have developed resistance to antibiotics.⁶

If a child is suspected of having head lice, he or she should be examined by a medical professional.³

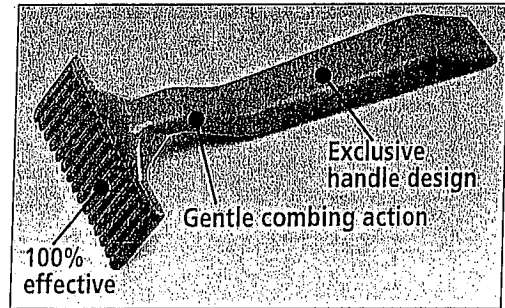
This program is supported through an educational grant to the National Association of School Nurses from Shionogi Pharma, Inc.

1. Hansen RC (September 2004). Overview: The State of Head Lice Management and Control. *Am J Manag Care*, 10, S260-S263. ■ 2. CDC Fact Sheet. <http://www.cdc.gov/lice>, Accessed April 12, 2010. ■ 3. Pollack RJ. The Role of the School in Battling Head Lice. *Our Children Magazine*. <http://www.ots.com/2151.htm>, Accessed April 10, 2010. ■ 4. CDC Headlice Treatment. <http://www.cdc.gov/lice>, Accessed April 12, 2010. ■ 5. Frankowski BL (September 2004). Overview: The State of Head Lice Management and Control. *Am J Manag Care*, 10, S269-272. ■ 6. Bukhast CG. Relationship of Treatment-Resistant Head Lice to the Safety and Efficacy of Pesticides. *Mayo Clin Proc*. 2004;79:661-666.

RID

HOW TO PROPERLY COMB HAIR FOR NITS

The RID® Egg Removal Comb...
proven 100% effective*

**1**

While hair is still damp, comb out tangles with your regular comb. Part hair into four sections and pick one section to work on.

3a

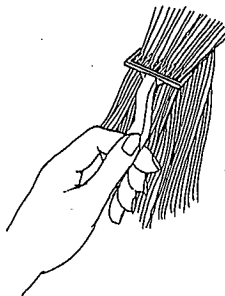
Make sure the teeth of the comb are as deep into the hair as they can go.

2

Start at the top of the head in the section of hair you have picked. With one hand, lift a one-inch strand of hair.

4

Wipe eggs (nits) completely from comb with a tissue. Toss in sealed bag to avoid reinfestation. Using bobby pins or clips, pin back each strand after you have combed out the nits.

3

Take the RID comb and comb with a firm even motion away from the scalp to the end of the hair.

5

Take each of the remaining sections of hair, repeat steps 2 through 4. If hair dries during combing, dampen slightly with water. After you have combed entire head, rinse thoroughly.

*Tested under laboratory conditions.



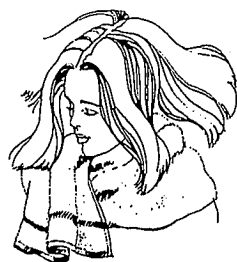


CÓMO PEINAR EL CABELLO PARA ELIMINAR LIENDRES

RID® Egg Removal Comb, para eliminar liendres...100% de efectividad comprobada*



1



Mientras el cabello todavía está mojado, desenrédelo con su peine regular. Divídalo en cuatro secciones, y escoja una sección para peinar.

3a



Asegúrese de que los dientes del peine penetren el cabello tan profundamente como sea posible.

2



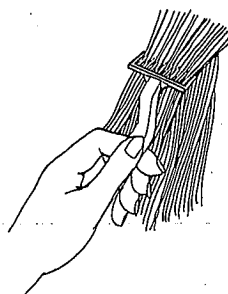
Comience en la parte superior de la cabeza, en la sección de cabello escogida. Con una mano, levante un mechón de cabello de una pulgada de ancho.

4



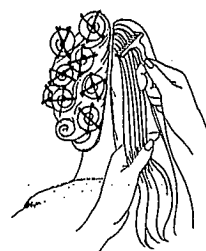
Con un papel tisú limpie los huevos (liendres) completamente del peine. Deseche el papel en una bolsa sellada, para evitar reinfestación. Con una horquilla o pinza, sujete hacia atrás cada mechón de cabello del cual haya eliminado liendres con el peine.

3



Tome el peine RID, y peine con movimientos regulares y firmes, desde el cuero cabelludo hasta la punta de los cabellos.

5



Tome cada una de las secciones restantes, y repita los pasos 2 al 4. Si el cabello se seca al peinarlo, humidézcalo levemente con agua. Una vez que haya peinado todo el cabello, enjuague minuciosamente.

*Sometido a pruebas de laboratorio



THE MOST ASKED QUESTIONS ABOUT HEAD LICE

There are 8-10 million cases of head lice in our country per year. The following will help you answer some questions you may have about the detection and elimination of lice.

1. What do you do if you discover your child has lice?

Don't panic or get embarrassed. A lice infestation is not a sign of lack of cleanliness. It is an easily treatable condition.

2. How many times do I need to treat my child to eliminate lice?

No lice treatment can guarantee complete success with a single application. That's why to eliminate lice and help prevent reinfestation, RID®* recommends two 10-minute applications, 7 days apart, plus combing with the proven 100% effective RID®* comb.

3. How do I recognize lice?

Lice are tiny insects that survive on human blood. Head lice are about as big as a sesame seed and may live on the human scalp.

4. How do lice live?

Lice hatch from eggs called nits. Nits are extremely tiny, yellowish or grayish white and tear-dropped shaped. They attach to the hair shaft and will not wash out or blow away. They must be combed out of the hair using a special comb designed for this purpose. Lice hatch in about 1 week and are fully mature in about 7 to 10 days.

5. How did my child get lice?

Head lice *cannot* fly or jump from person to person. They can only crawl. They are usually passed from child to child through shared combs, hats and other personal items.

6. What are the symptoms of lice?

One of the most common symptoms of lice infestation is *itching*. If you notice your child repeatedly scratching, you should check for lice.

7. How do I look for lice?

Live lice can be difficult to locate because they move quickly and don't like bright light. But their nits are easier to see. Closely examine the scalp in natural light and look for the eggs attached to the hair shaft. Also, inspect under the child's finger nails.

8. Can I prevent lice from returning?

Yes, lice can survive for up to 2 days off the human scalp, on personal items and household surfaces, clothing or bed linen.

Soak all washable items in hot (about 150°) water for 5 to 10 minutes. Wash clothing and linen in hot water (at least 130°) and then place the clothes in a hot dryer for 20 minutes. Place all non-washable items in a tightly sealed plastic bag for 2 weeks, then open outdoors and shake vigorously. RID Lice Control Spray kills all lice and their eggs on mattresses, sofas and carpeting and is also available at your local pharmacy.

9. Do all lice treatments rinse away after use?

No. That's why you may want to choose one that does. RID shampoo rinses away and leaves no lasting residue.

*Remember to read the package and all inserts carefully before using the product and to follow the manufacturer's instructions.

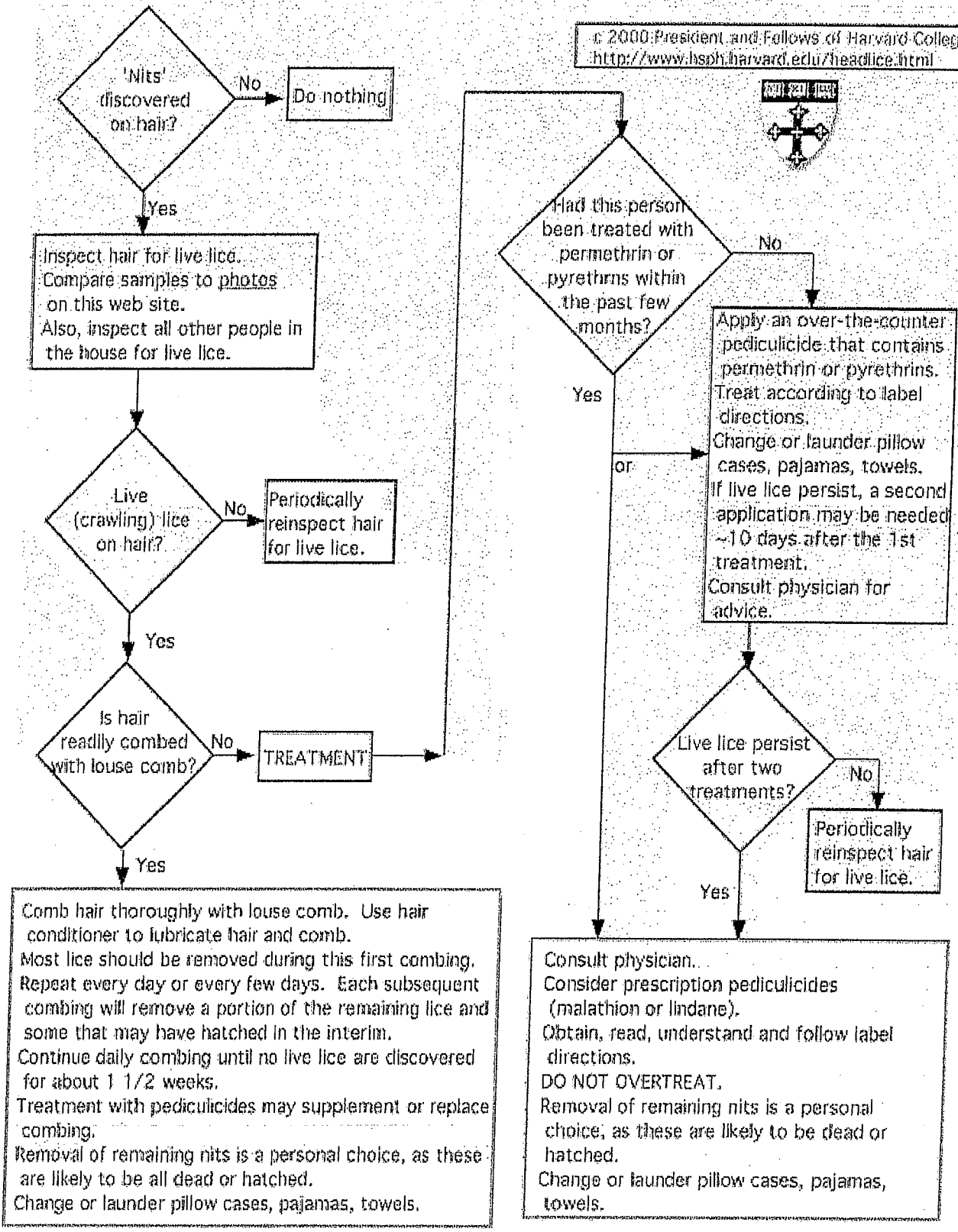
PREGUNTAS MAS COMUNES RESPECTO DE LOS PIOJOS DE LA CABEZA

Hay entre 8 y 10 millones de casos de piojos de la cabeza en nuestro país todos los años. La información siguiente ayudará a responder alguna de sus preguntas sobre la detección y eliminación de piojos.

1. ¿Qué debe hacer si descubre que su niño tiene piojos?
No sienta temor ni vergüenza. La infestación de piojos no es signo de falta de higiene. Es una enfermedad de fácil tratamiento.
 2. ¿Cuántas veces necesito repetir el tratamiento para eliminar los piojos?
Ningún tratamiento contra piojos puede garantizar un éxito completo con una sola aplicación. Por eso, para eliminar los piojos y evitar que se produzca una reinfestación, se recomiendan dos aplicaciones de RID^{®*} de diez minutos cada una, con un intervalo de siete días, y además, el uso del peine RID^{®*} que ha probado ser 100% efectivo.
 3. ¿Cómo se reconocen los piojos?
Los piojos son pequeños insectos que se alimentan de sangre humana. Los piojos de la cabeza tienen el tamaño de una semilla de sésamo y viven en el cuero cabelludo de las personas.
 4. ¿Cómo viven los piojos?
Los piojos nacen de huevos llamados liendres. Las liendres son muy pequeñas, de color amarillento o blanco grisáceo; tienen forma de lágrima. Se adhieren al cabello y no se pueden eliminar con el lavado ni con un secador de cabello. Para sacarlas del cabello hay que usar un peine especial diseñado para ese fin. Los piojos nacen en aproximadamente una semana y maduran en alrededor de 7 a 10 días.
 5. ¿Cómo se infestó mi niño con piojos?
Los piojos de la cabeza *no pueden* volar o saltar de una persona a otra. Sólo pueden arrastrarse. Por lo común se transmiten de un niño a otro cuando los niños comparten el uso de peines, sombreros y otros artículos personales.
 6. ¿Qué síntomas producen los piojos?
Uno de los síntomas más comunes de infestación de piojos es la *picazón*. Si usted ve que su hijo se rasca con frecuencia, examínelo para ver si tiene piojos.
 7. ¿Cómo se hace para detectar los piojos?
Los piojos vivos son difíciles de detectar porque se mueven con rapidez y escapan de la luz intensa. Pero sus liendres son más fáciles de ver. Examine con cuidado el cuero cabelludo a la luz del día para ver si hay huevos adheridos a los cabellos. Inspeccione también la parte inferior de las uñas de su niño.
 8. ¿Puedo evitar la reinfestación?
Sí. Los piojos sobreviven hasta dos días fuera del cuero cabelludo, en artículos de uso personal y superficies en la vivienda, artículos de vestir o ropa de cama.
Remoje todos los artículos que se puedan lavar en agua caliente (alrededor de 150°) entre 5 y 10 minutos. Lave las prendas de vestir y la ropa de cama en agua caliente (por lo menos a 130°) y luego séquelas en una secadora caliente durante 20 minutos. Coloque todos los artículos que no se puedan lavar en una bolsa plástica herméticamente sellada durante dos semanas; al cabo de ese período, abra la bolsa al aire libre y sacuda cada artículo vigorosamente. El piojicida en aerosol RID mata todos los piojos y liendres en colchones, sofás y alfombras y se puede adquirir en la farmacia más cercana.
 9. ¿Todos los productos contra los piojos enjuagan sin dejar residuos?
No. Por eso es que Ud. quizás quiera escoger uno que sí pueda quitarse con un enjuague. El champú RID se puede quitar con un enjuague y no deja residuo duradero.
- * No deje de leer cuidadosamente las instrucciones del envase y todos los folletos explicativos antes de usar el producto. Siga siempre las instrucciones del fabricante.

Scheme for managing presumed head louse infestations

© 2000 President and Fellows of Harvard College
<http://www.hsph.harvard.edu/headlice.html>



Comb hair thoroughly with louse comb. Use hair conditioner to lubricate hair and comb. Most lice should be removed during this first combing. Repeat every day or every few days. Each subsequent combing will remove a portion of the remaining lice and some that may have hatched in the interim. Continue daily combing until no live lice are discovered for about 1 1/2 weeks. Treatment with pediculicides may supplement or replace combing. Removal of remaining nits is a personal choice, as these are likely to be all dead or hatched. Change or launder pillow cases, pajamas, towels.

Consult physician. Consider prescription pediculicides (malathion or lindane). Obtain, read, understand and follow label directions. DO NOT OVERTREAT. Removal of remaining nits is a personal choice, as these are likely to be dead or hatched. Change or launder pillow cases, pajamas, towels.