

HEAD LICE AND YOUR CHILD

Many diseases affect our children today, but few are as communicable and as wide spread as head lice (*Pediculus humanus capitis*) and few involve the repeated direct exposure of young children to dangerous, synthetic pesticide poisons that do not control resistant lice.

Sadly, more and more of us have to face this problem. Lice are increasingly developing resistance to the most common chemicals found in some of the available treatments. Many schools and parents are becoming frustrated with persistent and recurring outbreaks of lice infestations. Roughly 25% of school-aged kids get lice each year, and hundreds of millions of dollars are spent on treatment, but just how effective are they? And what are the possible health effects of direct application of chemical pesticides for children?

Some of the chemicals used in lice treatments include lindane, a persistent, toxic organochlorine insecticide, and pyrethrins. Lindane has already been banned in 18 countries and severely restricted in 10 others. It is the next candidate for the list of POPs, or persistent organic pollutants that are being fast-tracked for elimination in an international effort to rid the world of its most toxic substances. Lindane is also an endocrine disrupter, and can cause behavior and learning problems, as well as increasing the risk of reproductive tract anomalies, decreased sperm count, and certain cancers. The most common alternatives are two chemicals: pyrethrum, an insecticide derived from chrysanthemums, and permethrin, a synthetic version which is similar to pyrethrum. Both have neurotoxic effects, meaning they can possibly impair the development of the neurological pathways of young children.

As with lindane, both of these chemicals appear to have lost their effectiveness in killing head lice. The failure of these ingredients has been confirmed by preliminary reports of a study at the Harvard School of Public Health, the University of Miami's medical school and the University of California at San Diego. Others have reported similar findings in Israel. An Israeli study published in the British journal "Medical and Veterinary Entomology" in 1995 noted that Israeli scientists blamed permethrin in particular for the head lice resistance they found, "The results suggest that resistance to pyrethroids has developed rapidly among head lice since permethrin was introduced (in Israel) in 1991."

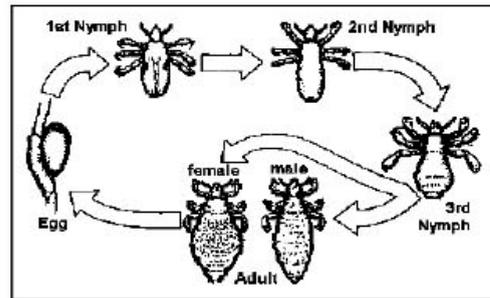
No pediculicide poison (chemical lice killer) should be used on infants, pregnant women or nursing mothers or on cut or abraded scalps. No poison should ever be used to "treat" lice twice if it failed the first time, clearly indicating the lice may, at the very least, be resistant or immune to that particular product/poison.

A variety of non-toxic treatments is available, and many have been used by families wishing to avoid the adverse effects of pesticides and drugs. Alternatives include olive, coconut and baby oils, castile soaps, as well as the use of dry heat like a hair dryer. Using an enzyme-based shampoo that works by loosening the 'glue' that attaches the nit (egg) to the hair and destroys the exoskeleton (outside shell) of the nit by dissolving its protective coating can make lice removal easier. Products containing the natural enzyme cleaners protease, lipase, cellulase and amylase are most effective. Since the insect produces the same enzymes that are used in the product, lice cannot develop a resistance to them.

WHAT YOU CAN DO

Non-Toxic Lice Treatment #1

2 parts olive oil /1 part white vinegar to equal 1/2 cup
20 drops tea tree oil
20 drops lavender essential oil
10 drops rosemary essential oil



Mix thoroughly and saturate the hair with solution. Save any left-overs for the next night. Leave it on over night, washing it out in the morning. Comb with a lice comb to be sure to remove nits that may be attached to the hair shafts.

Non-Toxic Lice Treatment 2

¾ cup of warm water with 20 drops of tea tree oil, a drop or two of shampoo mixed together and worked through the hair, (followed by repeat applications until you are sure the lice and nits are gone) works too. It is an alternative treatment that has been tried and proven.

Around the House:

- ✚ Wash bedding and towels in hot water and knit caps in hot, soapy water and borax and dry at least 20 minutes in a clothes dryer to be sure any nits on fallen hairs are killed or removed.
- ✚ Vacuum all surfaces where children lie or play (including stuffed toys). Discard the bag. Routinely mop and clean with hot water and borax.
- ✚ Daily vacuum and clean rugs or simply quarantine them for 10 - 14 days after vacuuming. Remember; never apply synthetic pesticide poisons to rooms, toys, or furniture surfaces. Store all other exposed items in bags for 2 weeks or dry clean. Don't forget to vacuum the car and all (upholstered) furniture.
- ✚ Try hand or manual removal of nits using bobby pins, hair-clips, grooming combs, nit/flea removal combs, safety scissors, tweezers, scotch tape and a magnifying glass and a bright light, etc. Then disinfect by soaking these items and all other hair ornaments, brushes and combs in boiling water.
- ✚ Thoroughly check all family members at the same time and treat only those who are infected.

At School

- ✚ In a school setting, every child should be examined in the morning before being allowed in the classroom by someone who is experienced in checking hair for lice and eggs. This checking should be done using lice sticks (basically, cheap wooden sticks you toss in a plastic bag that you seal shut and throw away) - a new pair of sticks for every child. Checking each child with your fingers is a grand way to pass along an adult louse from one child to the next.
- ✚ Children with lice should be sent home to be deloused. Children's clothing (hats, scarves, and coats) should be separately bagged, not hung side-by-side, using plastic bags, until all children are clear for at least two weeks.
- ✚ Make sure things like 'dress-up' clothing is not shared, and that things like hats, combs, brushes and sports equipment like batting helmets, or electronic gear like headphones are never shared either!

Sierra Club of Canada, 412-1 Nicholas Street, Ottawa, Ontario, K1N 7B7

613.241.4611, fax: 613.241.2292, email: sierra@web.ca