Upon entering the Sheffield Preschool in Berkeley, California, orderliness is immediately apparent. The children are sitting in a reading circle in the living room while a dozen lunches are being prepared in the kitchen. The school's equipment and the children's personal belongings are all neatly stowed. Nonetheless, like all schools, the Sheffield School has to keep a constant vigilance against head lice.

“We had a really bad outbreak of head lice last year,” June Sheffield says with a shudder. “It lasted three months. Out of 20 children, 14 families had head lice.”

Lice (Pediculus apitis) are tiny wingless insects that lodge in the hair and suck blood from the scalp to nourish a new generation of “nits.” When head lice first appear, many parents and teachers automatically reach for commercial shampoos, often containing lice-killing pesticides pyrethrum and, more rarely today, lindane.

Lindane is so dangerous that it has been banned in 50 countries and in the U.S. from agricultural, military and veterinary uses. Lindane is acutely toxic to the nervous system and capable of causing seizures, numbness, restlessness, anxiety, tremors, cramps and unconsciousness. It is also considered a “possible” carcinogen. Over the past 20 years, lice have developed a resistance to lindane.

As the founder of the preschool, Sheffield insists on chemical-free alternatives. She knows from personal experience that some over-the-counter treatments come with a downside.

“When my daughter was 16,” Sheffield recalls, “I bought a bottle of Rid. Before I finished the second application, her eyes started to water and her face turned red.” Her daughter spent two weeks in bed, suffering from aches and “a really bad case of bronchitis.” Unbeknownst to Sheffield, the shampoo contained lindane. Shampoos and other pharmaceuticals containing lindane can no longer be sold in California. Not so in other states.

The alternative, Sheffield acknowledges, involves a lot of hard work including “a daily head-check, daily head-combing and lots of vacuuming.” Sheffield's preschoolers now place all of their coats, jackets and caps into large, airtight plastic bins, nap on personal blankets and sit on upholstery covers that are washed regularly and dried under high heat.

In order to fight the battle of the bugs, Sheffield has to enlist the parents. “I have a booklet and tons of hand-outs,” she explains. “It’s a huge amount of work and all it takes is one family not being on top of it and then it’s a whole new outbreak.” Fortunately, the parents are strongly supportive of a pesticide-free preschool environment.

To celebrate the end of last year’s outbreak, Sheffield hosted a pizza party. “We made a piñata in the shape of a louse,” she laughs. “It was a great way to blow out all the frustration.”

**A Nit-picker’s Checklist**

Use a metal comb (not plastic) to rake the insects from hair and scalp. Comb twice within a ten-day period. Remove any missed nits by hand. Clean combs, brushes, caps and clothing with soap and hot water. Dry clothes in a very hot drier. Combs may be purchased from the National Pediculosis Association (www.headlice.org).

Here are some alternative treatments:

- Add one to three drops of Tea (or Ti) Tree oil to your Earth-friendly herbal shampoo. Massage into scalp and rinse.
- After shampooing, massage a mix of rosemary and coconut oil into the scalp. Leave for 10 minutes before rinsing.
- You can make your own lotion by adding 50 drops of Tea Tree oil to two ounces of olive oil. There are also alternative commercial products that combine Tea Tree oil and other aromatics with neem oil.

**Please note:** PANNA cannot vouch for any specific products or approaches and does not have the capacity to test their safety or efficacy.

The kids at Sheffield Preschool have learned a good lesson about banishing bugs without chemicals. Photo: Brian Hill.