Study shows hot, dry air device eradicates head lice

WASHINGTON, Nov. 6 (Xinhua) -- University of Utah biologists invented a chemical-free, hairdryer-like device -- the Louse Buster -- and conducted a study showing it eradicates head lice infestations on children by exterminating the eggs or "nits" and killing enough lice to prevent them from reproducing.

The study -- published in the November 2006 issue of the journal Pediatrics -- "shows our invention has considerable promise for curing head lice," says Dale Clayton, a University of Utah biology professor who led the research and co-invented the machine.

"It is particularly effective because it kills louse eggs, which chemical treatments have never done very well," he says. "It also kills hatched lice well enough to eliminate entire infestations. It works in one 30-minute treatment. The chemical treatments require multiple applications one to two weeks apart."

The Louse Buster now is in early stages of commercial development by a University of Utah spin off company, Larada Sciences, for which Clayton is chief scientific officer. Patents are pending on the Louse Buster technology, which Clayton hopes will be on the market within two years for use in schools and clinics.
“Each year, millions of children are infested with head lice, a condition known as pediculosis, which is responsible for tens of millions of lost school days,” the study’s authors write. “Head lice have evolved resistance to many of the currently used pediculicides [insecticide shampoos]. ... Hot air is an effective, safe treatment and one to which lice are unlikely to evolve resistance.”

The device blows warm air through a flexible hose, which has a rake-like hand piece on the end. It apparently kills lice and nits by drying them out, not by heating them. Clayton urges parents not to use hair dryers to try to kill head lice.

“We don’t want kids getting burned by parents who think it’s the heat” that kills lice, he says. “This thing is actually cooler than a hair dryer, but requires twice as much air flow, and the special hand piece is critical because, unless you expose the roots of the hair, it doesn’t work. And it’s difficult to do that with a regular comb.”

Editor: Gao Ying

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