Checking for lice can be time consuming.

Lots of hot air kills off head lice: study

A hairdryer-like device called the LouseBuster can help eradicate infestations of the six-legged pests, researchers say.

Lice do not cause disease, but because they are easily transferred from head to head they can create headaches for parents and children.

The pests are developing a resistance to an ingredient in many insecticide shampoos, making them more difficult eradicate.

Scientists in the U.S. invented the chemical-free device, which they say exterminates lice eggs or "nits" and kills enough of the parasites to prevent them from reproducing.

"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 researchers wrote in the November issue of the journal Pediatrics. "Hot air is an effective, safe treatment and one to which lice are unlikely to evolve resistance."

The LouseBuster also kills louse eggs, which chemical treatments have never done well, said Dale Clayton, a co-inventor of the device and a biology professor at the University of Utah who led the study.

LouseBuster is used in one 30-minute treatment, compared with multiple chemical applications over one to two weeks.

**Death by drying**

Clayton was originally looking for a way to raise lice that infest birds as part of his research — Utah's air was too dry to keep lice alive. That led the researchers to think drying lice out might be way to kill them.

Clayton's own two children, Mimi and Roger, volunteered to be infested with lice for the experiment and
were treated successfully, joking that they served as guinea pigs in his research.

To test the LouseBuster, the team experimented with six ways of applying hot air to the lice-infested scalps of 169 children between 2001 and 2005.

One side of each child's head was combed to remove all visible lice and nits. Then the entire scalp was treated using one of the methods, and finally the other side of the scalp was combed for the same amount of time.

To compare the effectiveness of different treatment methods, the researchers looked at the percentage of dead lice and non-hatching eggs collected from the treated side of the scalp compared with the non-treated side.

**Hair lift**

Children were excluded from the study if they had used other head lice treatments within the previous two weeks. Each participant was paid $10 after the trial and they received conventional treatments for lice.

Conventional hair dryers will not kill lice because they don't blow enough air to lift the hair, Clayton said.

Since it takes some skill to use the LouseBuster properly, the researchers want to place it in schools, daycare centres and community clinics.

The researchers hope the device will be on the market in the United States within two years. None of the children or parents reported side effects from the treatments.

"If this kind of a treatment were available and is relatively easy to do and effective, that would absolutely be something that would be a very exciting development," said Michelle Craig, head of school and preschool health services in Edmonton.

Despite the advantages of the LouseBuster, parents will still need to wash any clothing and pillowcases that may have been in contact with their infected children, said Phillip Butterfield of Toronto, whose 13-year-old son had lice last year.