

## Lifewire: Earwax softener can damage eardrum, study warns

by Ven\_Griva

A recent study has revealed that a certain over-the-counter earwax softener can cause severe inflammation and damage to the eardrum and inner ear, says researchers from The Children's Hospital and the McGill University Health Centre, both in Montreal, Canada.

The study results, published in the January 2008 edition of *The Laryngoscope*, suggest that use of these medications should be discouraged.

"Patients often complain that wax is blocking their ears and is causing discomfort and sometimes deafness," said Dr. Sam Daniel, principal investigator of the study and director of McGill Auditory Sciences Laboratory at The Children's Hospital.

"Over-the-counter earwax softeners are used to break up and disperse this excess wax," he said. "However, the effects of these medications on the cells of the ear had not been thoroughly analyzed.

"Because some of these products are readily available to the public without a consultation with or prescription from a physician, it is important to make sure they are safe to use. Our study shows that in a well-established animal model, one such product, Cerumenex, is in fact, toxic to the cells of the ear."

Daniel and his team studied the impact on hearing in chinchillas of Cerumenex, made by the Frederick Co. of Norwalk, Conn. The generic name of Cerumenex is triethanolamine polypeptide oleate.

In addition to the effect on hearing, overall toxicity in the outer ear and changes in the nerve cells of the inner ear were analyzed.

"Harmful effects to many of the cells were observed after only one dose," said Dr. Melvin Schloss, study co-author and health director of otolaryngology at McGill University Center. "We observed reduced hearing, severe inflammation and lesions to the nerve cells."

"We believe these findings are applicable to humans," add Daniel. "The animal model we chose has been widely used to test toxicity.

"In addition, this model has a very similar hearing mechanism. Overall, our findings suggest that Cerumenex has a toxic potential and it should be used with caution."

## DIABETES RISE

The number of U.S. citizens older than 65 who were newly diagnosed with diabetes increased by 23 percent over an 11-year stretch ending in 2004, according to a study reported Jan. 28 in the Archives of Internal Medicine.

The high rate of existing diabetes also contributes to a high rate of diabetes-related complications and premature death.

"The prevalence of diabetes mellitus is increasing, in part because of population aging, but also in younger persons," the report said.

Frank A. Sloan, professor of health policy at the Duke University Medical Center in Durham, N.C., teamed with colleagues to analyze Medicare data for nearly 100,000 patients first diagnosed with diabetes in 1993 and 1994, and then in 1999 and 2003.

This diabetes data was compared with that of two control groups made up of people without the disease who were of similar ethnicity. Death and complications from diabetes - such as heart disease, stroke, eye damage, kidney damage and foot and leg problems - were recorded.

The yearly incidence of diabetes increased by 23 percent from the beginning of the study in 1993 to the end in 2004, the authors write.

There was good news, though. After diagnosis, the death rate in patients having diabetes decreased by 8.3 percent when compared with those who had undiagnosed diabetes.

The study found, however, that most diabetes patients experienced at least one complication associated with the disease within six years of diagnosis. For example, almost half had congestive heart failure.

"Overall, our findings emphasize the overwhelming burden of diabetes, including the near 90 percent

prevalence of an adverse outcome and many serious and resource-consuming outcomes such as coronary heart failure, (heart attack) and stroke," the authors conclude.

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