

# Smoking and Hearing Loss



A published report on [AudiologyOnline](https://www.audiologyonline.com) from Western Michigan University, authored by Dr. Bharti Katbamna, indicates a strong link between smoking and hearing loss. Scientists have recognized the danger smoking presents to hearing for almost 40 years, though this danger hasn't been studied to the extent other tobacco-related health risks have. Dr. Katbamna's report indicates two distinct dangers to hearing associated with smoking – yet another reason to kick the habit!

Studies reveal that the dangerous chemicals in cigarette smoke can affect both the conductive mechanism in hearing (the middle ear vibrations) as well as the inner ear part of the hearing (the hair cells).

The affect smoking has on hearing appears to be correlated with the amount of cigarettes smoked. In a study conducted on Japanese office workers who smoke, the research showed "that as the number of cigarettes smoked per day and pack years of smoking increased, the risk for high-frequency hearing loss increased in a dose dependent manner..."

Research does suggest there may be three different mechanisms that play a role in the development of hearing loss due to smoke exposure:

- Hypoxia (lack of oxygen) - nicotine and carbon monoxide may actually deplete oxygen levels to the cochlea which is bathed in fluids and blood supply.
- Interaction between nicotine and neurotransmitters in the auditory (hearing) nerve.
- Hearing nerve pathways are particularly susceptible to damage, if environmental toxins like nicotine are introduced during the early adolescent years.

If you or a loved one do smoke, quit and have your hearing tested to see if you have caused any damage to your hearing!



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