

Public Arena/

Ear Candling for Cerumen Removal



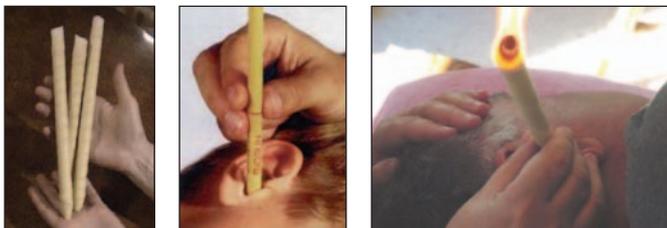
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Given a recent trend toward naturopathic self-treatment, significant attention has been afforded to the practice of ear candling for cerumen removal (Harris and Sullivan, 1999). The practice of ear candling has become popular as an alternative therapy worldwide. Some promoters say it is an ancient treatment that can cure a number of medical problems, while health regulatory bodies around the world have research to show that the procedure has

no proven medical benefits, and can be very dangerous. So what relevance does it have to audiology and how can we learn about it and inform our clients? I started, as we so often do today, with Google.

The internet is a wonderful resource, providing a wealth of information on every topic known to man. It is a fabulous tool as long as users understand that all the information they read may not be true. It is comforting that the first 2 hits when googling "ear candle" tell me that it is not such a good idea, however the majority of the next 400,000 proceed to educate me on how it will make me a better person, how I can do it myself, and where to buy the appropriate beeswax. Surprisingly, weight loss and improving your libido are not listed! For this I shall just have to start drinking Goji juice. After contacting 15 organisations who offer the procedure I should expect to pay in the range of \$30-\$65 for an appointment lasting 20, 30, or 45 minutes.

"Ear candling," also known as auricular candling or coning, refers to various procedures that involve placing a cone-shaped device in the ear canal and supposedly extracting earwax and other impurities with the help of smoke or a burning wick (Dryer, 2003)



Above/ Examples of commercially available ear candles and how the procedure is performed.

I am still confused about the origins of this procedure with Ancient Tibet, China, Egypt, the pre-Columbian Americas, and even the mythical city of Atlantis cited as possible contributors to the origins. The procedures supposedly create a low-level vacuum that draws wax and other debris out of the ear canal. Some claim that impurities are

removed from the inner ear, the facial sinuses, or even the brain itself, all of which are somehow connected to the canal.



Above/ Could these be ear candles, or some new paint brushes for his birthday?

Ear candling claims to:

- relieve sinus pressure and pain
- assist lymphatic circulation
- relieve pain and fever associated with a ruptured eardrum
- cure swimmer's ear and other ear infections
- act as an alternative to "tubes put in your ears"
- sharpen the senses of smell, taste, and color perception
- stop tinnitus (ringing in the ears)
- fortify the central nervous system
- act as an anti-inflammatory, antiseptic, or antibiotic
- cure auricular zona (a herpes zoster infection of the ear)
- open and align the chakras
- cleanse the ear canal
- improve hearing
- regulate pressure
- purify the mind
- strengthen the brain
- relieve earaches
- stabilize emotions
- help TMJ pain and stiffness
- relieve vertigo
- clear the eyes,
- purify the blood,
- aid sinusitis
- cure Meniere's syndrome
- release blocked energy
- reduce stress and tension
- open the spiritual centers and cleanse the auric bodies.

Scientific Evidence

Seely et al (1996) evaluated the efficacy and safety of this alternative method for cerumen management. Tympanometric measurements in an ear canal model demonstrated that ear candles do not produce negative pressure. A limited clinical trial (eight ears) showed no removal of cerumen from the external auditory canal. Candle wax was actually deposited in some.

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The authors of the report, all of whom were medical doctors, conducted a survey of 122 ear specialists. They found 21 cases of serious injury caused by ear candling. In six of these cases, patients temporarily lost their hearing. Other problems reported among the group included:

- Thirteen cases of burns
- Seven cases where candle wax blocked the ear canal
- One case of a perforated ear drum

The conclusion states that "Ear candles have no benefit in the management of cerumen and may result in serious injury."

Since wax is sticky, the negative pressure needed to pull wax from the canal would have to be so powerful that it would rupture the eardrum in the process, but candling does not produce a vacuum. Seely et al carried out 20 trials with 2 different candle types and found that no negative pressure was actually created. The "impurities" that appear in the collected wax (usually on a paper plate or other collecting device) are nothing more than the ashes from the burnt wick and wax of the cone itself.

Shenk and Dancer (2005) followed a procedure for 2 simple tests to simulate the process of ear candling. Human ear wax was placed in a test tube with the dimensions of an ear canal and heated to approximate body temperature in a pan of water. A 100% beeswax ear candle was inserted into the tip of the test tube and the other end burnt and trimmed according to the instructions for candling. The cerumen and debris in the test tube was removed and weighed. The procedure was repeated with an empty 75 mm test tube.

Visually, both test tubes appeared to have a waxy build up in them after the candle was burned. There was no difference in the appearance of the candle burned with the wax in the test tube or the one burned with the empty test tube. No wax was removed from the test tube by the ear candle and in fact, the wax gained mass due to exposure to the burning candle. Their conclusion was that candles are not an effective method of removing cerumen from the ears.

Case Study (Harris and Sullivan, 1999).

A 55 year old female lay midwife was seen at the Brigham Young University Audiology Clinic USA after she had burned her ear using an ear candle. The patient reported a severe pain during the use of the ear candle which prompted her visit to our clinic. She reported that "after using the ear candles I wasn't able to hear well out of my right ear and I noticed some bleeding in my ear". Visual inspection did not reveal any blood in the canal. However, this may either have been a sanguinous or an ear candle residue which was washed out by the patient prior to coming to the clinic. The patient indicated that she used 10 ear candles over a 10 day period.

Video otoscopy of her right ear revealed that liquid wax from the ear candle had dripped onto the tympanic membrane (Figure 1).

Routine pure tone audiometry revealed a conductive impairment with a 20-25 dB air-bone gap (Figure 2). Tympanometry presented reduced TM mobility when the ear candle wax was on the tympanic membrane.



Figure 1/ Ear candle wax on TM

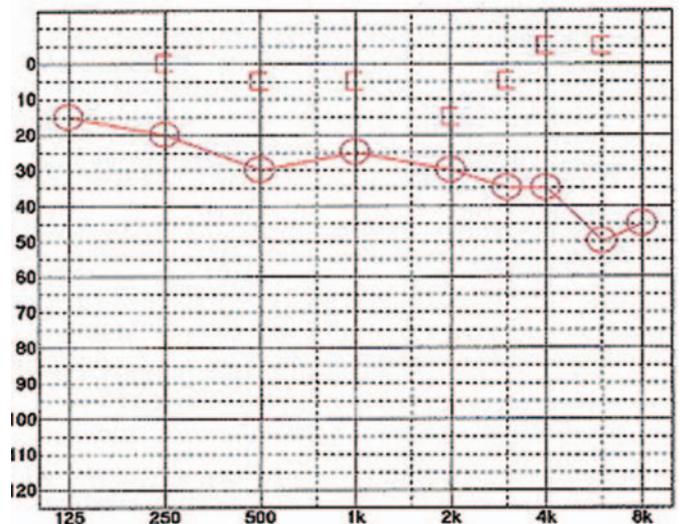


Figure 2/ Audiometric results obtained with ear candle wax adherent to the right tympanic membrane.

She was referred to an otolaryngologist for consultation. Under a binocular surgical microscope, the otolaryngologist used a surgical hook to remove the plate of ear candle wax from the unanaesthetized surface of the TM. The procedure was without complication. A follow-up audiological evaluation was performed five days after treatment. Video otoscopy shows a significant improvement in appearance of the TM (Figure 3).



Figure 3/ Tympanic membrane 5 days after removal of ear candle wax.

Pure tone audiometry demonstrated some improvement in air conduction hearing acuity, greater in the high frequencies (Figure 4), consistent with restoration of tympanic membrane mobility.

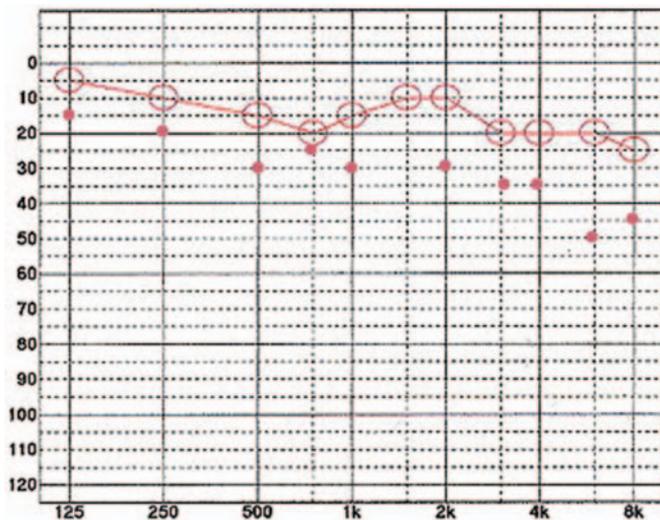


Figure 4/ Audiometric results obtained 5 days after removal of ear candle wax from right tympanic membrane. Red dots = before.

International Policies

Australia

Dr R J Payten wrote to Audiology Australia stating that “The Australian Society of Otolaryngology, Head and Neck Surgery Ltd have considerable concerns regarding the safety of ear candles, and the blatant misleading advertising about the cure of sinus, glue ear, and inner ear conditions. The ASOHNS has written to various Australian bodies in an attempt to prohibit or at least restrict the supply of ear candles within the community. In November 2001 ASOHNS made a submission to an enquiry being held by the NSW Products Safety

Committee following concerns about ear candles raised by the Children’s Hospital Westmead. The response from the Department of Fair Trading stated that ear candles should not be prohibited or restricted, but that the minister had requested the Therapeutic Goods Administration examine them.” ASOHNS requested more information but has received no further reply.

Canada

Health Canada is responsible for ensuring that medical devices for sale in Canada are safe and effective. Health Canada's Medical Devices Regulations state that certain types of medical devices, including ear candles, require a licence from Health Canada before anyone can sell them for therapeutic purposes.

Health Canada has not issued any licences for ear candles. Therefore, the sale of this product for therapeutic purposes in Canada is illegal. As well, both Canada and the United States have issued directives that ban the importing of ear candles.

Some promoters try to circumvent these Regulations by advertising that ear candles are “for entertainment purposes only”. However, Health Canada maintains that these people are selling the product illegally, for medical purposes, as there is no other reasonable use for ear candles.

United States

Candles marketed with health claims are classified by the FDA as medical devices. As such, they are illegal to market without FDA approval, which none of them have. During the past few years, the agency has banned the importation of auricular candles marketed by at least four Canadian companies.

Despite these actions, ear candles are still widely available through the Internet and at health-food stores. The purpose of this brief article is to offer professionals a look into what various consumer-based publications say about ear candling.

Conclusions

From a professional standpoint, it sounds absolutely ridiculous. To consumers, however, some of it sounds like the answer they’ve been searching for. Audiologists and other hearing health care providers are best able to help consumers and patients by being aware of what they’ve been exposed to. Consumers should be wary of the claims made regarding ear candles.

There are literally dozens and dozens of websites, health-food stores and pseudo-science books dedicated to ear candling.

References

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 Richard Harris, Ph.D. Brigham Young University; Provo, UT; Roy F. Sullivan, Ph.D.; Sullivan & Sullivan; Garden City, NY (Posted March 5, 1999) in: AUDIOLOGY FORUM: VIDEO OTOSCOPY: www.rcsullivan.com