

How to fashion earplugs using cotton wool and petroleum jelly

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Sir,

For a number of ear problems, patients are advised to protect their ears with the help of earplugs. One often-recommended type of earplug is cotton wool doused in petroleum jelly,^{1,2} but there are no recommendations as to how to fashion this device. It can be challenging to achieve good coating of the cotton wool and comfort and function of the resulting earplug by simply rolling pieces of cotton wool in petroleum jelly.

The following method is effective and easy to use.

Method

It is necessary to warm the petroleum jelly to a liquid state, so it can penetrate the cotton wool. This can be achieved in a hot-water bath (much like melting chocolate in a bain-marie).

A smaller container is placed in a larger pot or pan filled to a shallow level with hot water. This will provide steady and well-controlled heat without any water contamination to the inner container (Fig. 1).

The cotton wool is plucked into pieces of the desired size. These are then coated in petroleum jelly and placed in the smaller container, resting in a hot water bath. This is left to warm for 3–5 min, until the petroleum jelly has liquefied and seeped through the cotton wool.

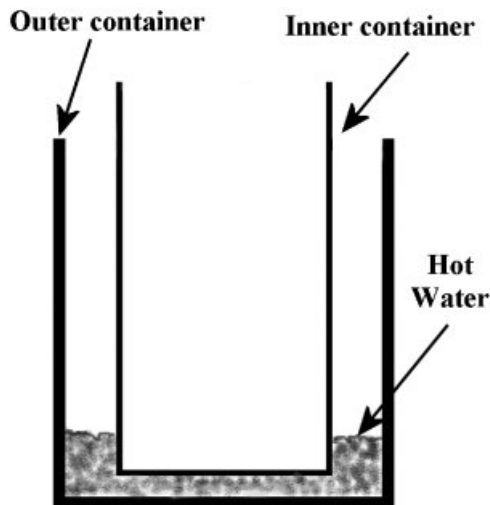


Fig. 1. Principle of bain-marie or hot-water bath.

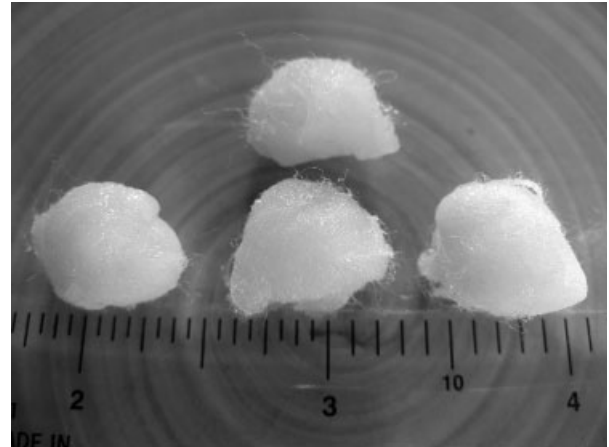


Fig. 2. Cotton wool earplugs, rolled into shape.

The cotton wool balls are then left to cool off and later rolled into the desired shape (Fig. 2). Immediately after removal from the bain-marie care should be taken, as the petroleum jelly might be hot to handle.

The petroleum jelly soaks into the cotton wool and so makes a watertight and easy to use earplug. These can then be stored in a polyethylene bag. A supply of desired number can so be produced and stored and used when needed.

Conclusion

This method represents a simple way to produce a supply of easy to use, comfortable earplugs that can be stored and used at the patient's convenience.

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References

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- 2 Robinson A.C. (1989) Evaluation for waterproof ear protectors in swimmers. *J. Laryngol. Otol.* **103**, 1154–1157