



Earplug Fitting Tips

What are best practices for teaching my workers how to fit their earplugs?

One of the major benefits of fit-testing hearing protectors is to identify those workers who have a poor fit. In some facilities, more than half the noise-exposed workers 'fail' their initial VeriPRO test, even though they are part of an ongoing Hearing Conservation Program that includes training and audiometric testing.

What should a test administrator do when a worker achieves poor results on the initial earplug fit test? This is the ideal opportunity to provide critical one-on-one training in proper fitting of the earplug.





The fitting tips on the following page have proven to be best practices in teaching workers how to properly fit their earplugs.



Earplug Fitting Tips



1. ROLL

- For roll-down foam earplugs, start rolling the foam gently to avoid creases. Then roll as hard as you can to make the cylinder as small as possible.
- Rolling the earplug into a tight cylinder makes it easier to fit around the bends in the ear canal.
- After rolling, move quickly to the next step so that the earplug doesn't expand before insertion.



2. PULL (applies to all earplugs)

- Reach over the head to pull OUT (or for some people, pull UP or BACK) on the ear flap, called the pinna.
- Observe the worker's ear: which direction opens the ear canal the most? Give feedback to the worker about which pull-direction is most effective. For many people, pulling OUT away from the head is most effective in spreading open the ear canal for a better earplug fit.



3. INSERT (applies to all earplugs)

- Insert the earplug far enough so that it goes around bends in the ear canal. This often feels sensitive (not painful), or may trigger a cough reflex. This is normal.
- Let go of the pulled-back ear after the earplug is fully inserted.
- For foam earplugs, hold the earplug in place for a few seconds while the foam expands to fill the ear canal.
- For removal, it's often easier to use the same EAR-PULL technique that was used for insertion.

Troubleshooting Chart for Improving Fit

Problem	Cause	Solution
Too Much Earplug Showing	Foam earplug not rolled down small enough	Start rolling gently to avoid creases, then roll firmly to make the cylinder as small as possible
	Earplug expanded before insertion	After rolling, move quickly to insert before foam expands
	Insertion not deep enough	Reach over the head to pull OUT (or for some people, pull UP or BACK) on the ear flap, called the pinna.
	Earplug is too large	Try a smaller earplug
Hidden Leak	Creases in earplug may be allowing noise to leak through	Do not twist or squeeze down the earplug. Properly roll it—gently at first to avoid creases, then roll firmly to make the cylinder as small as possible.
	Earplug hits wall of ear canal and bends back on itself	Removal sometimes shows a U-shaped earplug. Reach over the head to pull OUT on the pinna to straighten the ear canal before inserting.
	Round earplug may not fill oval ear canal	Some round pre-molded earplugs may not completely fill an oval-shaped ear canal. Try a foam earplug that can expand to fill the oval.
Discomfort	Earplug is too firm	Try a soft-foam earplug, or a low-pressure foam earplug.
	Earplug is too large	Try a smaller earplug.
	Earplug is hitting the bend in the ear canal.	Before inserting, straighten the ear canal by reaching over the head to pull OUT (or for some people, pull UP or BACK) on the pinna.

Sound Source is a periodic publication of the Hearing Conservation team of Honeywell Safety Products USA, Inc., addressing questions and topics relating to hearing conservation and hearing protection.

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