EARPLUG FIT TESTING

The FitCheck hardware/software system has been designed to measure the attenuation provided by earplugs on the individual wearer.

The amount of noise attenuation provided to wearers of earplugs varies widely, and the ability to measure the attenuation provided to the individual resolves the difference between laboratory ratings and actual performance of the earplug.

The most essential information to be generated by the FitCheck is the personal attenuation rating (PAR), reflecting the amount of protection the person achieves from a particular earplug.

- Test the performance of different earplugs for individual wearers.
- The FitCheck system is PC-based and portable, and it allows for individual fit testing in most environments.
- The FitCheck system allows the Hearing Conservationist to verify that each wearer is using an *appropriate* hearing protective device.

The FitCheck system can become an integral component of a hearing conservation program by providing:

1) Training of wearers in correct fitting procedures,

2) Random field sampling of hearing protection effectiveness,

3) Documentation of hearing protection provided for compensation cases, and

4) Identification of failing or deteriorating hearing protectors .

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South West Occupational Health Services

EARPLUG FIT TESTING

FAQs

How does the Earplug FitCheck work?

The FitCheck process simulates the laboratory approach of testing the quietest test tone a subject can detect without earplugs in, and re-testing with earplugs inserted. The difference between the two sets of measurements is an estimate of the protection provided by the insert-type earplugs for the individual.

Using a headset, the person is subjected to test tones similar to those used for industrial audiometric testing, and then is asked to respond by pressing a button when the test tones are just audible.

How long does it take to perform an Earplug FitCheck?

Allow approximately 30 minutes per person for the Earplug FitCheck.

How is the FitCheck information useful?

- Fit testing can provide useful information about the adequacy of the workers ' earplug use.
- Data can be used to help assess the overall effectiveness of an employer 's hearing conservation program.
- Individual fit testing results allow selection of earplugs appropriate for a given worker and their noise environment. This can be important for workers whose jobs have a very high noise exposure.
- As a valuable training tool to demonstrate to workers that their selection and use of earplugs is either adequate or inadequate for their particular noise risk.
- As an educational tool— FitCheck can also be used to teach employees how to correctly insert ear plugs and how to spot a good earplug fit in others .
- FitCheck results can also serve as evidence that training was carried out and gives a record of its effectiveness.