



Acoustic incidents

Headset users may experience an unexpected or loud noise, known as an acoustic noise. Acoustic noises may be crackles, hisses, whistles or high-pitched sounds transmitted through telephone equipment. The noises can come from a wide variety of sources, either within the transmission system or from the customer end.

These occurrences are known as acoustic incidents. Although many acoustic incidents may occur, few headset users who have experienced acoustic incidents develop symptoms of 'acoustic shock'.

Acoustic shock

'Acoustic shock' is a term that describes the temporary or permanent neurophysiological and psychological symptoms a person may experience following an acoustic incident.

Symptoms can include pain, tinnitus, vertigo, numbness, tingling and nausea. Other factors such as middle-ear inflammation and feelings of stress, tension and anxiety can affect the symptoms.

Research suggests a hypersensitive neurological reflex – the startle reflex – can cause acoustic shock incidents (ASI). When a person is 'sensitised', they become more aware of an incident happening again. This fear of acoustic shock may lead to further noise hypersensitivity at noise levels sometimes well below standards for typical noise injuries. It is likely that ASIs are not due to one single factor, such as the level of sound experienced, but to a combination of physical and psychological factors.

Acoustic shock symptoms

The same acoustic incident can affect individuals differently. Only a small minority of people develop symptoms from an acoustic incident, but it is not known with certainty why a person experiences symptoms after an acoustic incident.

Audiologists have grouped acoustic shock into three categories:

1. Primary acoustic shock, which occurs immediately

Symptoms include:

- a feeling of fullness in the ear
- burning sensations or sharp pain around or in the ear
- numbness, tingling or soreness down the side of the face, neck or shoulder
- nausea or vomiting
- dizziness

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- tinnitus and other head noises such as eardrum fluttering
- hearing loss in very few cases.

2. Secondary acoustic shock, which occurs later

Symptoms include:

- headaches
- fatigue
- a feeling of being off-balance
- anxiety.

3. Tertiary acoustic shock

Symptoms include:

- hypersensitivity – a sensitivity to previously tolerated sounds such as loud voices, television and radio
- hypervigilance – being overly alert.

People experiencing these symptoms will respond in different ways. As with other workplace injuries and illnesses, some employees may experience other effects, including anger, anxiety, social isolation and other interrelated problems.

Very few people suffer hearing loss from acoustic incidents. To help diagnosis in the few cases where hearing loss occurs, consider having an audiometrist perform baseline testing of employees' hearing when they start work.

Managing acoustic incidents

Reducing the risk of ASI requires an assessment of the workplace environment and the implementation of a range of controls. These may include minimisation, engineering and administrative controls.

Factors influencing the likelihood of an employee receiving an acoustic shock include:

- number of calls an employee receives or makes in a working day
- use of a handset or headset
- background noise levels
- volume of incoming sound levels
- unexpected increases in sound volume
- duration of calls
- frequency of sounds
- types of sounds

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- individual characteristics such as health and wellbeing
- history of acoustic incidents.

Preventing infection

To prevent the possible spread of infection, it is important that employees should not share headsets. **Where possible**, employers should provide a headset for each employee required to use one. Headsets need to be cleaned regularly.

When buying a headset and deciding on the design and number of ear pieces, the surrounding environment and the need for the user to attend to other signals need to be considered.

SOURCE: EDITED VERSION OF "OFFICEWISE" A WORKSAFE GUIDE FOR OFFICE WORKERS

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