



Effective Workplace Accommodations for Employees with Hearing Impairments in Manufacturing Settings

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Objectives

Objectives

- JAN Overview
- Typical Barriers
- Typical Issues and Solutions
- Questions



Consultation

- Job Accommodations
 - All industries, job categories, and impairments
- Employment Legislation
 - Americans with Disabilities Act
 - Rehabilitation Act



Technical Assistance

- Free
- Confidential
- National
- Easy to Use
- Audience-Focused
 - Employers
 - Individuals
 - Service Providers
 - Others



Typical Barriers - Manufacturing Settings:

- Safety
 - Laws and regulations
 - Hearing aid use
 - Safety meetings
- Equipment
- Policy, procedure, and regulations
- Supervisor attitudes

Hearing Conservation

Hearing aids and use of Hearing Protection

- In the ear hearing protection may interfere with hearing aid use
- Using hearing protection without hearing aids may cause difficulty detecting the direction of a sound source and difficulty communicating
- Hearing aids alone will likely not meet OSHA Standards
- Refer to Hearing Conservation for the Hearing-Impaired Worker

<https://www.osha.gov/dts/shib/shib122705.html>

Establishing Paths and Rules

Consistent rules enhance safety

- Establish set paths of travel for industrial vehicles and pedestrians. Paths could be created using industrial tape, paint, or ropes
- Establish and enforce rules requiring all moving equipment, forklifts, and vehicles to stop and flash lights/beep horn at intersections

Providing Visual Cues

High-tech and low-tech options

- Install flashing [strobe lights](#) on moving vehicles.
- Install a [directional worker alert system](#) that provides a visual warning of oncoming vehicles.
- Install [industrial mirrors](#) around the work environment in strategic locations.
- The individual who is deaf or hard of hearing may be willing to voluntarily wear a hat or vest of a unique color to serve as a warning to others to be cautious.

Accommodation Example

Example

An employee who was hard of hearing wanted to be considered for a different position in the plant where he worked. His desired position required working around forklifts. The employer contacted JAN to see if there were accommodations that could enhance his safety in this position.

Accommodation Example

Accommodation

A JAN consultant provided the caller with information on accommodations to give both the employee who was hard of hearing and others, including fork truck drivers, additional visual information to enhance safety for all. The workplace already had set paths of travel and strobe lights on fork trucks, but did not have a directional worker alert system and had not considered checking to see if the employee would be willing to wear a brightly colored vest. The employee had used such a vest on a previous job and preferred to wear one.

Communicating — ASL users

Use interpreting services to accommodate sign language users

- Community-based
- Video remote interpreting (VRI)
- Use RID.org or Vinya to find interpreters
- Ensure good lighting and line of sight

Accommodation Example

Example

An experienced factory worker was deaf and used ASL. His workplace had been providing written materials for him at safety meetings, but the employee was not sure that he was getting all of the information. He was injured and developed a back impairment after missing important information about a new procedure. He contacted JAN about his back injury and was surprised to learn that we also take questions about deafness.

Accommodation Example

Accommodation

A JAN consultant provided the caller with information on accommodations for meetings and trainings. The caller preferred to have an interpreter present for important meetings. He learned how to request sign language interpreter services as an accommodation during safety meetings.



Communicating — Hard of Hearing

Use an assistive listening device/system (ALD) when communicating one-on-one or in groups

- Personal or sound field
- FM
- Infrared
- Induction loop
- Bluetooth
- Consult an audiologist when assisting an employee who uses hearing aids



Communicating — Enhancing Understanding

Use visual skills to support conversation

- When possible choose PPE that does not block view of the speaker's mouth
- Use prepared forms where common questions or tasks can be checked off
- Provide CART services
- Use notes, texting, apps, and captioning software when appropriate

Communicating — Enhancing Understanding

Provide visual reminders and cues

- Remind with printed signs
- Consider using/developing hand signals
- Use prepared forms where common questions or tasks can be checked off
- Use notes to clarify information communicated verbally

Communicating with Co-workers

Use mainstream devices and services

- Email
- Internal instant messaging
- Texting



Accommodation Example

Example

Two employees who worked in close proximity to each other but were not in line of sight of each other needed to communicate in order to time their actions while operating the equipment that was blocking their view. Usually workers called out to each other, but one employee could not hear well enough for this to work.

Accommodation Example

Accommodation

The JAN consultant responding to the call provided information on devices for typing back and forth. Captioning devices were ruled out due to potential interference from background noise. The employer decided to try a device called the UbiDuo 2, which operated using proprietary wireless signals and is designed specifically for typing back and forth. Mounting systems were also discussed.



UbiDuo 2 Wireless

Communicating with Co-workers

Use portable [communication access technologies](#) to communicate with patients and co-workers.

- Devices that transcribe conversations automatically
- Devices to support communication by typing
- Apps for messaging
- Apps for automated transcription

Accommodation Example

Example

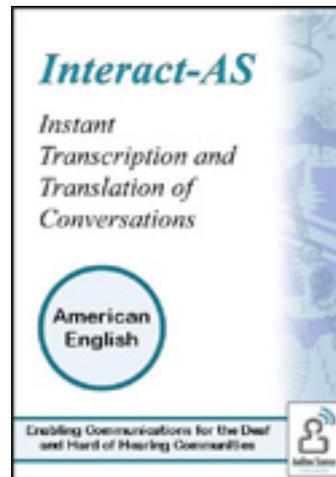
An employee wanted to text with coworkers and her supervisor, but mobile phones were not allowed in the part of the facility where she worked. She had asked for a modification to the policy, but her employer wanted other options to consider and contacted JAN.



Accommodation Example

Accommodation

The JAN consultant responding to the call provided information on a variety of communication access devices for automatically captioning conversations including app-based options, low-tech whiteboards, and automated captioning software.



Using the Telephone

Use assistive technology for telephone access

- Telephone amplifier
- Hearing aid-compatible equipment
- Cochlear implant-compatible equipment
- Captioned telephones and services
- Relay equipment and services
- Alternative communication methods

Accommodation Example

Example

A supervisor in a manufacturing facility had to be available to respond to phone calls about emergencies at the plant. He was hard of hearing and used hearing aids but took them out at night. He could not hear the phone. Even if he noticed the phone ringing he had difficulty getting the hearing aids in place in time to respond effectively.



Accommodation Example

Accommodation

The employer purchased a telephone amplifier which could be used without hearing aids as well as a lamp flashed and bed shaker to alert him to the phone ringing.



Responding to Equipment Sounds and Emergencies

Attending to sounds, alarms, and emergencies

- Alerting devices
- Assistive listening devices and systems
- Hearing aid-compatible equipment
- Cochlear implant-compatible equipment
- Assign to a workstation where visual monitoring systems can be used.



Responding to Equipment Sounds and Emergencies

Attending to sounds, alarms, and emergencies

- Vibrating phone or personal pager to alert the individual to code, fire, or evacuation emergencies
- [Vibrating clocks and timers](#)
- Decibel meters and sound analyzing software

Accommodation Example

Example

An applicant who was deaf was being considered for a position in food manufacturing facility. He was applying for a position operating a coffee roaster. The job required him to take actions at various times during the roasting process, but the times were not predictable. Workers usually used their hearing to listen for the “first crack” and to listen for the sound of the beans moving through the machine.

Accommodation Example

Accommodation

The employer and JAN consultant discussed vibrating timers but concluded that these would not be precise enough to ensure proper operation of the machine. Using touch to detect vibration was ruled out, because the equipment was too hot to touch during some parts of the process. The consultant explained the use of a free software program that could be used to view the wave form of a sound and suggested trying to see whether it was possible to use a visual cue to notice when to perform the required actions.

Contact JAN

JAN Consultants can be reached M-F 9am-6pm ET

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