SAFETY TRAINING TALKS

On-the-Go 5-Minute Refreshers

Toolbox Talks for OSHA General Industry & Construction

J. J. Keller & Associates, Inc.®

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Since 1953

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Introduction

Safety Training Talks assists you by providing close to 300 training talk topics between the print and online editions of this publication. These grab-and-go tools for general industry and construction make it easy to conduct employee safety talks. Such training sessions, usually 5 minutes long and conducted weekly at the start of the shift, are a popular and widely used means to convey safety information. This product is designed specifically for use in these types of training sessions. However, the information included here can also be used when preparing other, more in-depth training sessions.

Each safety training talk topic includes an overview, a summary of training requirements (along with training tips and references to where to go for more information), and one or more handouts. Each talk topic is aimed at either general industry, construction, or both. In addition to the overview-summary-handout format, some topics come in other formats — real life story talks tell a brief story to illustrate a hazard or regulation, and citations talks summarize the citations and fines that resulted from OSHA inspections.

Whether you are in general industry or construction, safety training is a critical component of your safety program. You cannot expect your employees to work in a safe manner if you don't explain what they need to do and how to do it. Your safety training program is the way management provides required OSHA safety instruction and information on specific work hazards. Your training program also helps to instill your organization's safety culture.

Safety training talks, also known as "toolbox talks," are an important part of your whole safety training program. They can be used as refreshers of previous training, as a reminder of specific hazards your employees may face on the job, or as introductions to more in-depth work-specific training subjects. Safety training talks are effective means to provide required OSHA safety instruction and specific work hazard training. They also offer a mechanism to show employees that your organization is serious about their safety, health, and welfare.

Due to the constantly changing nature of government regulations, it is impossible to guarantee the absolute accuracy of the material contained herein. The Publisher and the Editors, therefore, cannot assume any responsibility for omissions, errors, misprinting, or ambiguity contained within this publication and shall not be held liable for any loss or injury caused by such omission, error, misprint, or ambiguity presented in this publication.

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OSHA Training Requirements At-A-Glance

Many OSHA standards include explicit safety and health training requirements to ensure that employees have the required skills and knowledge to safely do their work. These requirements reflect OSHA's belief that training is an essential part of every employer's safety and health program for protecting workers from injuries and illnesses. According to the agency, training employees in the safe way for them to do their jobs well is an investment that will pay back over and over again in fewer injuries and illnesses, better morale, and lower insurance premiums.

Certain OSHA standards also require periodic or refresher training or retraining. To keep workers and jobsites safe, some standards call for periodic or refresher training. Some standards require retraining based upon specific circumstances, such as observed behavior.

Refer to the remainder of this section for a list of training (and retraining) requirements for general industry, followed by a list for construction. Requirements for posting information, warning signs, labels, and the like are excluded, as are most references to the qualifications of people assigned to test workplace conditions or equipment. However, the section will indicate any training records that may be required.

Even if a training record is not required by OSHA, it is a good idea to keep a record of all safety and health training. Documentation can also supply an answer to one of the first questions an incident investigator will ask: "Did the employee receive adequate training to do the job?"

Required General Industry OSHA Training At-A-Glance

*** Indicates annual training is required.**

Injury and Illness Recordkeeping — Employee Involvement (1904.35)

Who:	Employers must inform each employee: • How he or she is to report a work-related injury or illness to the employer; • Of the employer's reasonable procedure for reporting work-related injuries and illnesses; • That employees have the right to report work-related injuries and illnesses; and • That employers are prohibited from discharging or in any manner discriminating against employees for reporting work-related injuries and illnesses.
When:	Initially for new employees
What records:	Specific training documentation is not required

Scaffolding (1910.27)

Who:	Train employees who may use a rope descent system
When:	Initially
What records:	None

Duty to Have Fall Protection and Falling Object Protection (1910.28)

Who:	Train employees exposed to unprotected sides and edges when regular fall protection means are not feasible or create a greater hazard. Train employees engaged in outdoor advertising who climb without fall protection.
When:	Initially
What records:	None

How to Use This Publication

Walking-Working Surfaces - Training (1910.30)

Who:	Fall hazards Each employee who uses personal fall protection systems or who is required to be trained as specified elsewhere in Subpart D. Equipment hazards Each employee who uses fall protection equipment, dockboards, rope descent systems, and designated areas.
When:	• Initially - Before exposed to a fall hazard. (Training requirement is effective May 17, 2017) • Retraining when employer has reason to believe employee is lacking understanding or skill, or when there are changes in the workplace or type of fall protection system used.
What records:	None

Emergency Action Plans (1910.38)

Who:	Train employees who need to evacuate the facility in an emergency
When:	• Initially • When the employee's responsibilities change • When the plan is changed
What records:	Keep written plan in the workplace

Fire Prevention Plans (1910.39)

Who:	Train employees who are exposed to fire hazards
When:	Initially
What records:	Keep written plan in the workplace

Powered Platforms for Building Maintenance (1910.66)

Who:	Train employees who operate powered platforms
When:	Initially
What records:	• Keep a training certificate that includes: – employee's name – signature of the employer or trainer – date of the training • Keep training records for the duration of employment

Vehicle-Mounted Elevating and Rotating Work Platforms (1910.67)

Who:	Train employees who operate aerial lifts
When:	Initially
What records:	Specific training documentation is not required

Confined Spaces

Hazards

Overview

This Safety Training Talk is appropriate for general industry and construction employers. Workers who enter confined spaces can be exposed to multiple hazards, any of which may cause bodily injury, illness, or death. Confined space hazards are categorized as physical or atmospheric.

Physical Hazards

According to OSHA, "physical hazard" means an existing or potential hazard that can cause death or serious physical damage. Examples include:

- Mechanical, electrical, hydraulic, and pneumatic energy;
- Radiation;
- Explosives;
- Temperature extremes;
- Engulfment, cave-in, and drowning;
- Noise; and
- Inwardly converging surfaces.

Physical hazards also include chemicals that can cause death or serious physical damage through skin or eye contact (rather than through inhalation).

Many physical hazards can be eliminated or at least isolated. Isolating a hazard might mean:

- The lockout or tagout of all sources of energy,
- Placement of barriers inside the space to prevent employee contact with a hazard, and
- Other isolation methods listed in the confined space regulations.

Atmospheric Hazards

The standard defines a "hazardous atmosphere" as an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue, injury, or acute illness from one or more of the following causes:

- Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);
- Airborne combustible dust at a concentration that meets or exceeds its LFL;
- Atmospheric oxygen concentration:
  - Below 19.5 percent (oxygen deficient), or
  - Above 23.5 percent (oxygen enriched);
- Atmospheric concentration of any substances for which a published dose or a permissible exposure limit is exceeded; and
- Any other atmospheric condition that is immediately dangerous to life or health (check the safety data sheet or other guidance on acceptable atmospheric conditions).

Generally, if a space has a hazardous atmosphere, it must be:

- Purged,
- Inerted (displaced by a noncombustible gas),
- Flushed, and/or
- Ventilated (controlled by using a continuous forced-air mechanical system) to eliminate or reduce the hazard.

If atmospheric hazards cannot be completely eliminated, employees must use appropriate respiratory protection and other personal protective equipment, as necessary.

Employee Training

Your employees whose work is regulated by the confined space regulations must know, understand, and have the skills necessary for the safe performance of the duties assigned by OSHA. In fact, the training must establish employee proficiency in the duties required. See the OSHA training regulations for permit-required confined spaces and our Safety Talk topic Confined Spaces Overview for details about when to train, training format and costs, and required training records or certifications.

Construction

Another training requirement is critical for safe entry. OSHA requires that regulated employees in construction have an understanding of the hazards in the permit space and the methods used to isolate, control, or in other ways protect themselves from those hazards. However, for employees not authorized to perform entry rescues, such training must result in an understanding of the dangers of attempting such rescues. An employee may not participate in permit-space entry operations until he or she receives training under §1926.1207.

Training Tips

As a trainer, you may wish to:

- Ask trainees if they have come across any hazards in a confined space and to share their experiences. No hazard is too off the wall — even spiders and snakes can pose a hazard.
- Talk about any close calls you or your employees have had in confined spaces.
- Provide a list of the hazards that trainees might encounter and instruct them as to how they might recognize these hazards.
- Describe how your company identifies and evaluates the hazards of permit spaces. For construction, you might have your competent person describe this.
- Pass around a copy of an actual or mock permit and show trainees where they can find on the permit itself a listing of the hazards of the permit space and a description of the measures used to eliminate or control space hazards.
- Display, explain, and demonstrate the instruments used at your company to test atmospheres.
- Emphasize that trainees should never trust their senses to determine if the air in a permit space is safe. Point out that many toxic gases and vapors they may find on the job cannot be smelled or seen.

Confined Spaces: Hazards

- Emphasize that some gases or vapors are heavier than air and will settle to the bottom of a space, while others are lighter than air and will be found at or near the top of the space. That's why the air is tested at the top, middle, and bottom of a space.
- Review any hazard-related information from your written permit-required confined space program.

Where to Go for More Information

- 29 CFR 1910.146 — Permit-required confined spaces.
- 29 CFR 1926.57 — Ventilation.
- 29 CFR 1926 Subpart AA — Confined spaces in construction.
- ANSI/ASSE Z117.1 — *Safety requirements for confined spaces*.

Confined Spaces: Hazards

Interactive feature online

Confined Spaces — Hazards Handout

As the old adage says, "It's better to be safe than sorry." Yet employees continue to make the mistake of entering deadly confined spaces. All too often you hear about the latest victim of a confined space incident. In fact, several fatalities and thousands of injuries occur annually among employees involved in work in confined spaces. That's why it's critical for you to understand:

- What makes confined spaces hazardous,
- What hazards are present in permit spaces you're involved with, and
- Ways to eliminate or reduce those hazards or otherwise protect yourself from them.

Physical Hazards

"Physical hazard" means an existing or potential hazard that can cause death or serious physical damage to you. Examples include:

- Mechanical, electrical, hydraulic, and pneumatic energy;
- Radiation;
- Explosives;
- Engulfment, cave-in, and drowning;
- Corrosive chemicals; and inwardly converging surfaces;
- Noise from equipment and employees that may reverberate and make it hard to hear important directions or warnings; and
- Heat that can build up quickly in a permit space and cause exhaustion or dizziness.

The good news is many physical hazards can be eliminated or at least isolated. Isolating a hazard might mean:

- The lockout or tagout of all sources of energy;
- Placing barriers inside the space to prevent you from contacting a hazard; and/or
- Other isolation methods used to protect you from physical hazards.

Atmospheric Hazards

A "hazardous atmosphere" is an atmosphere that may expose you to the risk of death, incapacitation, impairment of ability to self-rescue, injury, or acute illness from one or more of the following and any other conditions in the air that are immediately dangerous to life or health:

Oxygen deficiency

The primary risk associated with confined spaces is oxygen deficiency. Normal air contains 20.8 percent oxygen. The minimum safe level as indicated by OSHA is 19.5 percent. At 16 percent you will feel disoriented and below 12 percent, you can become unconscious. If the air has too much oxygen (over 23.5 percent), it is considered oxygen rich and becomes an explosion or fire hazard.

Confined Spaces: Hazards

Flammable air

Fire and explosion are serious dangers in a confined space. Fumes and vapors will ignite more quickly in the trapped air. Flammable and combustible gases or vapors may be present from previous contents, tank coatings and preservatives, and welding gases. In locations where flammable vapors may be present, precautions must be taken to prevent ignition by eliminating or controlling the source of ignition or eliminating the flammable air before working. Sources of ignition may include:

- Smoking,
- Cutting and welding,
- Hot surfaces, and
- Frictional heat.

Toxic air contaminants

Toxic air contaminants come from:

- Material previously stored in the confined space or as a result of the use of:
  - Coatings,
  - Cleaning solvents, or
  - Preservatives.
- Work that gives off a toxic gas, such as a welding operation that gives off carbon monoxide and oxides of nitrogen and ozone.

Unfortunately, you will not see or smell most toxins, but they present two types of risk in a confined space:

- They can irritate your respiratory or nervous system; or
- Some toxic chemicals can cut off your oxygen supply, get into your lungs, and asphyxiate you.

Because many toxic gases and vapors on the job cannot be smelled or seen, atmospheric testing and monitoring is very important. Generally, if a space has a hazardous atmosphere, the hazard must be eliminated or reduced by:

- Purging the hazardous atmosphere,
- Displacing the noncombustible gas,
- Flushing the hazardous atmosphere, and/or
- Ventilating with forced air.

If atmospheric hazards cannot be completely eliminated, you must use appropriate respiratory protection and other personal protective equipment, as necessary.

Emergency Planning

First Aid — AEDs — Real Life Stories

Overview

This Talk is appropriate for general industry and construction employers. Nearly 350,000 people die of sudden cardiac arrest (SCA) each year. The chances of surviving an SCA event without the aid of an automatic external defibrillator (AED) are one in twenty.

However, with an AED, chances of survival improve to one in three. The use of AEDs could save 100,000 lives per year!

What Is an SCA Event?

When someone has an SCA event, the heart begins to pump irregularly and ineffectively. The heart muscle may "quiver" instead of contracting normally, the heart contractions may be uncoordinated, or the contractions may be happening so fast that the heart cannot refill with blood.

It Happened Like This

John and Lyle were working late to finish a project. Lyle had been complaining of indigestion and pain in his neck and jaw. All of a sudden, Lyle stood up from his work bench, clutched his chest and collapsed on the floor.

John rushed to his side and checked for signs of life. Not finding any, John went down the hall, located an AED (he was trained to use one), and brought it back to where Lyle was. As he was taking the AED out of the case, John realized he should call 911.

After dialing 911 and explaining the situation, John got Lyle prepped to receive the electric shock from the AED. After Lyle received two jolts from the AED his pulse returned. John continued to monitor Lyle's vital signs until the paramedics arrived and took over.

Employee Training

Let's Talk About This, OK?

What did John do right?

- Checked Lyle for signs of life.
- Got the AED and used it properly.
- Monitored Lyle's vital signs until EMTs arrived.

What could John have done differently?

- Did not dial 911 immediately; instead, he went for the AED first and then remembered to call 911.

What Happens Next?

What do you think should happen next? John should review the company's emergency reporting policy.

AED Use

The symptoms of cardiac arrest are very sudden and dramatic. The victim may complain of pain or tightness in the chest, pain in the arm, neck, or jaw, or begin to sweat before collapsing and showing no signs of a pulse. At this point, emergency medical help must be summoned and the AED should be used.

The victim's chest is completely bared, all visible jewelry or medicine patches are removed, and the electrodes are attached. Areas where the patches attach may have to be dried or shaved. Once the AED is turned on, it will prompt the operator through the necessary steps. If the AED does not sense a shockable event, no shock is given. If a shockable event is noted, the AED will sound a warning before applying the shock, or will prompt the operator to apply a shock.

Training Tips

Review with the attendees the signs and symptoms of heart attacks in both men and women.

The American Red Cross says that in cases of suspected cardiac failure, you should call emergency services first, before providing care if you are alone.

All those who are expected to use AEDs should receive formal training and certification on the specific AED in the workplace.

If possible, have an AED trainer available to show how AEDs work and to allow the trainees to get hands on experience with one.

Show the trainees where AEDs are located in the facility.

Review with the trainees the emergency procedures for your facility:

- How to summon emergency help.
- Who is responsible for AED use, if that is specified.

Interactive feature online

First Aid — Automated External Defibrillators (AEDs) — Real Life Stories Handout

Overview

Nearly 350,000 people die of sudden cardiac arrest each year. Currently, the chances of surviving sudden cardiac arrest (SCA) without the aid of an automatic external defibrillator (AED) are one in twenty.

However, with an AED, chances of survival improve to one in three. The use of AEDs could save 100,000 lives per year!

Let's Talk About This

What did John do right?

_____

_____

_____

What did John do wrong?

_____

_____

_____

What happens next?

What do you think should happen next?

_____

_____

_____

AED use

The symptoms of cardiac arrest are very sudden and dramatic. The victim may complain of pain or tightness in the chest, pain in the arm, neck, or jaw, or begin to sweat before collapsing and showing no signs of a pulse. At this point, emergency medical help must be summoned and the AED should be used.

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