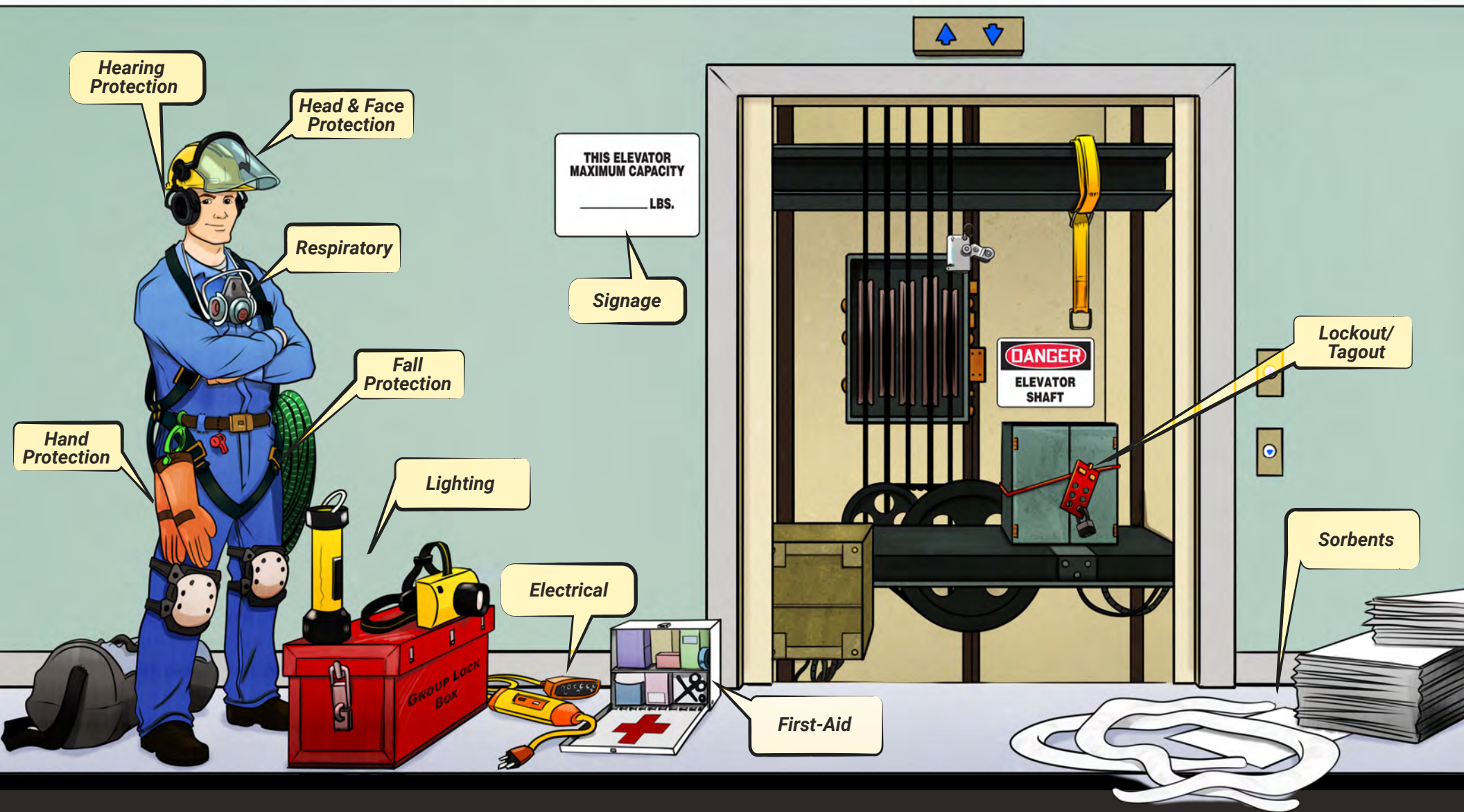


THE ILLUSTRATED ELEVATOR SAFETY GUIDE *featuring* Elevator Tech Eric



HEARING PROTECTION

Sounds reverberate within hoistways so elevator workers are at risk for exposure to extremely high levels of noise. Besides interfering with communication, high noise levels can cause temporary or permanent hearing loss. The risks don't end there either: hearing loss has been linked to Alzheimer's disease and dementia. OSHA's permitted exposure limit is 90 dBA for all workers for an 8 hour day.

- ❖ Earplugs and earmuffs can protect workers' hearing in a variety of ways. Earplugs can be disposable, multiple-use, push-in foam, banded and more. Earmuff styles include foldable and cap-mounted.

HEAD & FACE PROTECTION

OSHA standards require the use of hard hats whenever there may be a risk of head injury. Keeping eyes and faces safe is important as well so there are also standards in place which require the use of eye and face protection when workers are exposed to such hazards.

- ❖ Helmets and hard hats protect against blows to the head. They are water resistant, prevent the penetration of objects, and most importantly, absorb the shock of a blow.
- ❖ Face shields vary depending on the hazard and may protect against chemicals, impact, heat, arc flash, and many other hazards to the facial region. They can be attached to headgear or directly to a hard hat with the use of brackets.

RESPIRATORY

A respirator is a protective device covering the nose, mouth or entire face to guard against hazardous atmospheres. Respirators keep you safe from harmful dusts, smokes, fumes and gases that may be present at the workplace. To ensure maximum protection, all NIOSH approved respirators require an annual fit test.

- ❖ ½ Mask respirator: the low profile construction covers the nose and mouth and allows for a wide field of vision plus room for protective eyewear
- ❖ Full face respirator: covers the entire face, including the eyes, nose and mouth

FALL PROTECTION

Fall protection is any planned backup system to manage or eliminate a possible injury caused by losing your balance at height in the workplace. OSHA requires employers to ensure that environments are free of known dangers, provide required PPE at no cost to workers and train workers about job hazards.

- ❖ Fall protection includes safety harnesses and lines, safety nets, stair railings, hand rails, guardrails and toe-boards.
- ❖ To ensure optimum performance and safety, the equipment should be inspected daily by the authorized user as well as annually by a competent person.

HAND PROTECTION

OSHA requires the use of gloves when hands are exposed to hazards which could lead to lacerations, abrasions, punctures, chemical burns and thermal burns. The different fibers and coatings used in gloves provide different levels of protection so the type of gloves needed depends on the type of work being done. Types of gloves which elevator workers may use include:

- ❖ Rubber insulated gloves which protect against energizing conductors.
- ❖ Cut- and abrasion-resistant gloves and those which also protect against hot and cold conditions.

EYE PROTECTION

In approximately 60% of all reported eye injury cases, the injured person was not wearing any eye protection. The eyes are especially vulnerable parts of the body so it's important to take the necessary precautions to keep them safe from potential hazards such as projectiles, chemicals, radiation, and blood-borne pathogens.

- ❖ Safety glasses are one line of defense against hazards and they can come with a variety of additional features like magnification, special lens for clearer vision in certain environments, and built-in or attached lighting.
- ❖ Safety goggles provide a tighter fit, covering the entire eye area, and protect against impact, dust and splashes.

LIGHTING

Poor lighting in the era of LEDs is unacceptable. There are many inexpensive ways to brighten up your work area while making it safer. A well-lit work area will limit slips and trips, relieve eyestrain and make sure you see all of those things which go bump in the night.

- ❖ Headlamps: some models can be strapped to the head while others may attach to a hard hat
- ❖ Flashlight: hand held portable lights can be used in a variety of situations.

ELECTRICAL

OSHA's electrical standards are in place to protect employees against electric shock, fires and explosions. Engineers and electricians work with electricity directly and in many situations, protective gear such as insulating blankets and arc resistant gloves and clothing may be required. Other workplace devices that can help to protect against electrical hazards are:

- ❖ GFCI circuit analyzer: a device that monitors the imbalance of current between the underground and grounded conductor of a circuit.
- ❖ Triple tap GFCI: a 3-outlet triple tap that provides protection against shock from damaged cords and exposure to water.

FIRST-AID

The first aid required by OSHA includes not only kits but also AEDs. The NSC estimates that AEDs could save around 40,000 lives per year if usage were widespread. Medical and first aid supplies which should be available in the workplace include bandages, gloves, cloth tape, gauze pads, tweezers, aspirin, and hydrocortisone ointment. These kits and AEDs should be easily accessible at a moment's notice.

- ❖ Vehicle first aid kits are portable and give workers access to the supplies while on the road.
- ❖ Wall mounted first aid kits are mounted onto the wall at a worksite allowing easy access to employees in the area.



Frequently Cited OSHA Violations

- 1926.501**
Lack of proper fall protection when working in and around elevator shafts
- 1910.146**
Improper or inadequate training for safe performance of duties in permit-required confined spaces.
- 1917.116**
Elevator landing openings without doors, gates or equivalent protection in order to prevent employees from falling into the shaft.
- 1910.147**
Servicing an elevator without locking or tagging it out of the energy source.
- 1917.116**
Not posting the elevator's maximum load limits both inside and outside of the car.
- 1917.116**
Elevator inspections at intervals exceeding one year, not conducting additional monthly inspections for satisfactory operation and not posting the results of latest annual elevator inspection in the elevator.

LOCKOUT/TAGOUT

Lockout/tagout is a distinct set of procedures to inhibit the use of machinery and equipment while they are undergoing service or maintenance. Machinery could release hazardous energy or unexpected energization during this time. Lockout/tagout devices include: Lockout/tagout devices include:

- ❖ Cable lock: a lock for a cable where the cable end is fed through the points to be locked, then back out through the lockout body.
- ❖ Group lock box: storage device that stores keys for efficient lockout of large equipment.

SORBENTS

Sorbents clean up spills through the process of sorption. They are made from different materials depending on their intended purpose: some are intended for oily spills only, some can be universal, and others are for chemical spills. Spill control kits should be readily available for any time a spill may happen in the workplace. Different forms of sorbents include:

- ❖ Pads and rolls: the most common type of sorbent. They are easy to dispose of and often have perforations for easy dispensing.
- ❖ Booms or socks: ideal for use around machines and for keeping larger spills from spreading.