

Warehouse Safety Fact Sheet: Materials Handling & Storage

HS25-010A (09-25)

Warehouse workers face some of the highest risks for job-related injuries in the United States, according to the [Bureau of Labor Statistics](#). In recent years, the transportation and warehousing sector reported injury rates between 4.1 and 4.7 cases per 100 full-time workers — among the highest of any industry. About one in 24 warehouse employees experience a serious injury requiring time away from work each year. The most common hazards come from lifting, moving, and storing materials. Most of these injuries are preventable with the right training and safety practices.



Why warehouse safety matters

Warehouses are busy places filled with people, equipment, and stored goods. Workers may lift and move heavy boxes, operate forklifts, work with conveyors, or climb ladders. These tasks carry risks like back injuries, slips, falling objects, forklift crashes, and chemical exposure. Employers and employees must work together to identify hazards and use safe practices every day. [OSHA](#) provides guidance to help prevent these accidents. Most solutions are simple and low-cost.

Common hazards and prevention

1. Forklifts (powered industrial trucks).

Hazards: Struck-by accidents and tip-overs.

Solutions:

- Operate forklifts only if you are trained, evaluated, and certified; never operate if you are under 18.

- Inspect the forklift before each use, checking tires, brakes, forks, and warning signals. If you find damage or a defect, remove the vehicle from service and report it immediately.
- Always wear your seatbelt, adjust mirrors, and keep hands and feet inside the vehicle while driving.
- Approach intersections, dock edges, or corners slowly. Sound your horn and make eye contact with pedestrians before proceeding.
- Never allow anyone to ride on the forks or use them as a lift.
- Keep loads stable and within the machine's rated capacity. If the load blocks your vision, drive in reverse at a slow speed while watching your path of travel.
- Park safely with the power off, controls in neutral, and brakes set when unattended.

2. Loading docks.

Hazards: Falls from elevations, vehicle incidents, and dock plate failures.

Solutions:

- Before driving over a dock plate, check that it is secure, stable, and clear of debris. If damaged, loose, or wet, do not use it until corrected.
- Drive slowly on dock plates and avoid sudden stops or turns, which may cause tip-overs.
- Stay at least three feet from open dock edges. Never lean, sit, or place materials near drop-offs.
- Make sure trailers are properly chocked or locked before entering with equipment. Stop and verify if unsure.
- Use dock barriers or visual warnings when dock doors are open and no trailer is present to prevent accidental falls.
- Wear high-visibility clothing and ensure good lighting in dock areas to reduce the risk of vehicle-related incidents.

3. Materials storage.

Hazards: Falling items, shifting loads, or rack collapses.

Solutions:

- Stack loads evenly and straight. Use shrink wrap or banding when required to prevent shifting.
- Place heavier items on lower or middle shelves, and lighter items on top.
- Do not exceed posted rack load capacities. If you suspect overloading, stop and request supervisor approval before stacking.
- Keep all aisles clear of clutter. Immediately remove pallet wrap, straps, and debris after use.
- Inspect storage racks regularly and report any damage for prompt repair.
- Label storage areas clearly to ensure proper placement and retrieval of materials, reducing handling errors and confusion.

4. Hazardous chemicals.

Hazards: Chemical burns, explosions, and respiratory illnesses.

Solutions:

- Before use, read the [Safety Data Sheets](#) (SDSs) for any chemical you handle and follow the listed precautions for storage and handling.
- Wear appropriate personal protective equipment (PPE), such as gloves, goggles, or respirators as required for the task.
- Label all chemical containers clearly. Do not use or move unmarked containers. Report them to the safety team.
- Store chemicals in designated areas away

(continued)





from forklift traffic, heat sources, and direct sunlight. Ensure incompatible chemicals are stored separately to prevent hazardous reactions.

- Use a spill kit and PPE if trained to clean up minor spills. Otherwise, keep people away and report spills immediately.

5. Equipment charging stations.

Hazards: Fires, explosions, and acid exposure.

Solutions:

- Confirm the area is well-ventilated. Do not allow open flames, smoking, or spark-producing tools nearby.
- Before charging, inspect cords, plugs, and equipment for damage. Tag and report any defects.
- Wear gloves, face shields, or aprons if handling batteries to prevent acid burns or splashes.
- Remain with equipment until charging starts safely. Check periodically for leaks or loose cables.
- Ensure extinguishers are available, visible, and unobstructed at all times.

6. Ergonomics and musculoskeletal disorders (MSDs).

Hazards: Sprains, strains, and repetitive motion injuries.

Solutions:

- Train workers to lift with their legs, not their backs:
- Grip tightly with both hands, straighten legs to lift, and keep the load close to your body.
- Never twist your torso while carrying. If you need to turn, move your feet instead.
- For items over 35 pounds or difficult to handle, request a team lift or use a hand truck or pallet jack.
- Store heavy items between knee and chest height. Rotate tasks to avoid repeated bending or twisting.
- Rotate tasks so workers are not repeating the same motion for hours.
- Use anti-fatigue mats in standing areas and take warm-up breaks as needed when working in cold rooms.

7. Slips, trips, and falls.

Hazards: Falls from spills, debris, or unstable ladders.

Solutions:

- Clean up any spills immediately with the right method. Mark the area until dry.
- Keep aisles and walkways free of cords, pallets, straps, and trash.
- Only use approved ladders. Inspect each ladder for cracks, loose rungs, or instability before use.
- Maintain three points of contact (two hands and one foot, or two feet and one hand) when using a ladder. Never climb past the top step.

- Wear fall protection if required in any elevated work area and ensure guardrails are in place.
- Ensure adequate lighting in all work areas, especially near stairs, ramps, and loading zones. Replace burned-out bulbs promptly.
- Report uneven flooring, loose mats, or damaged surfaces that could cause trips or slips.
- Wear appropriate footwear with slip-resistant soles suited to the work environment.

8. Emergency preparedness.

Hazards: Fires, chemical spills, and power failures.

Solutions:

- Keep at least two exit routes from your work area. Keep exits clear and never block exit doors.
- Participate in fire and evacuation drills. Know where to assemble outside during an emergency.
- Locate fire extinguishers, eyewash stations, and first-aid kits in your area before starting work.
- If an alarm sounds, stop work immediately and evacuate as trained. Do not return until given the all-clear.
- Report damaged or missing emergency equipment at once.
- Review the facility's Emergency Action Plan (EAP) and know where to find it for reference.
- Ensure backup lighting and power systems are tested regularly to maintain visibility and safety during outages.

Roles and responsibilities

For Employers:

- Provide thorough safety training on lifting, forklift operations, and hazard awareness.
- Maintain equipment and keep aisles clear.
- Enforce safe work practices and correct unsafe behavior immediately.
- Provide appropriate PPE and review the warehouse safety plan at least annually.

For Employees:

- Follow all safety training and use equipment correctly every time.
- Report unsafe conditions, damaged racks, or broken equipment immediately.
- Wear required PPE on every shift and stay alert for hazards.
- Watch carefully for forklifts, moving loads, and falling objects.
- Take regular breaks to prevent fatigue-related mistakes.

Warehouse safety depends on teamwork, planning, and employee commitment. Every worker has the right to a safe job, and every employer has the responsibility to provide one. By recognizing hazards and following proven safety practices, everyone can help prevent injuries and keep the workplace productive and safe.



Scan to subscribe to *Safety@Work*—your source for workplace safety & health news, OSHA updates, and training alerts.

Want to learn more about workplace safety?

Visit www.txsafetyatwork.com or email us at safetytraining@tdi.texas.gov to connect with one of DWC's OSHA-authorized safety experts.



www.txsafetyatwork.com

1-800-252-7031, Option 2

*The Texas Department of Insurance,
Division of Workers' Compensation (DWC)-Workplace Safety
P.O. Box 12050
Austin, TX 78701-2050*

Disclaimer: Unless otherwise noted, this document was produced by the Texas Department of Insurance, Division of Workers' Compensation using information from staff subject specialists, government entities, or other authoritative sources. Information contained in this fact sheet is considered accurate at the time of publication. For more free publications and other occupational safety and health resources, visit www.txsafetyatwork.com, call 800-252-7031, option 2, or email resourcecenter@tdi.texas.gov.