

# Job Hazard Analysis Fact Sheet

HS23-002A (05-23)

**U**nintended injuries, commonly known as “accidents,” are the fourth leading cause of U.S. deaths, according to the National Safety Council.<sup>1</sup> These preventable accidents cause one death and 236 injuries every two minutes.<sup>2</sup>

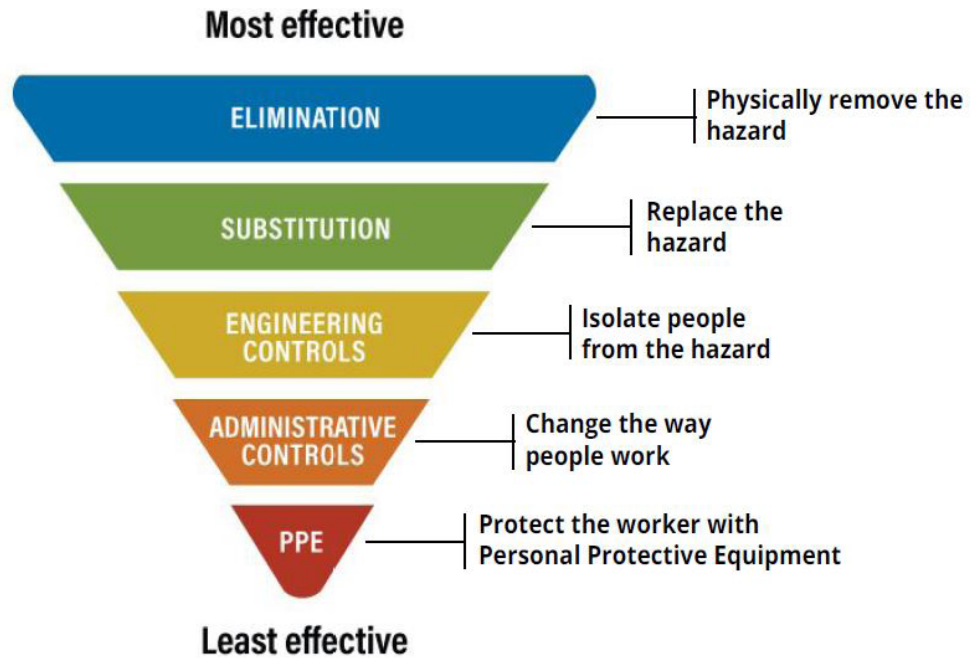
Preventing accidents by looking for hazards ahead of time is a simple principle. In occupational safety and health, this principle is called “hazard recognition.” At its most basic, the process of hazard recognition is looking at a job, task, or situation, and asking, “Is there anything here that could hurt someone or damage something?” When employers, employees, managers, and supervisors ask this question to improve safety in their facility, they are looking for any practice, behavior, or physical condition that may cause harm and ways to eliminate or control it.

## Types of Hazards in the Workplace

Workplace hazards are many and can arise daily. Every employer needs to identify and take steps to control the risks. Here are some common types of workplace hazards:

- **Physical Hazards:**
  - slips, trips, and falls;
  - impacts that cause struck-by or struck-against accidents;

### Hierarchy of Controls



- mechanical motions (rotating, reciprocating, or transverse) that cause caught-in or caught-on accidents;
- actions that cause cutting, stabbing, sheering, bending, or punching;
- heat or cold due to the environment, chemical reactions, combustion, electrical currents, or mechanical motion;
- noise or vibration;
- radiation and burns;
- confined spaces;
- electrical contact including shock, ignition of combustibles, overheating of equipment, arc flashes, and unexpected activation of equipment; and

- pressurized systems including ruptured cylinders, whipping hoses and lines, and water hammers.

- **Chemical or Biological Hazards:**

- Toxic substances that can enter the body through:
  - inhalation (breathing it in);
  - ingestion (eating or drinking);
  - absorption (through the skin); or
  - injection (needles and other sharp objects);
- flammability and fire;
- corrosives;
- oxidants;
- explosives including chemicals, dusts, solids, vapors, gases, and equipment;
- compressed gas; and
- biological agents.

- **Human Factors:**

- repetitive tasks;
- awkward postures;
- manual lifting;
- carrying;
- pushing or pulling;
- poor visibility; and
- overnight or shiftwork.



## Hazard Recognition Tools

Many hazard recognition tools are available to help identify and document risks in the workplace. Examples include:

- **Inspection Checklists**

These are best for ensuring compliance with regulations, rules, and policies. The Texas Department of Insurance, Division of Workers' Compensation (DWC) offers samples of inspection checklists for construction ([English/Spanish](#)), health care ([English/Spanish](#)), and general industry ([English/Spanish](#)).

- **Personal Protective Equipment (PPE) Assessments**

PPE assessments are a valuable communication tool for teaching employees what PPE they need to wear to perform their work safely. A sample can be found [here](#).

- **Pre-task Planning (PTP)**

PTP is valuable when procedures and conditions change frequently. It is often used as a reminder to employees of

the risks associated with the operations they will perform during a particular timeframe. A sample PTP Assessment Checklist can be found [here](#).

- **Job Hazard Analysis (JHA)**

A JHA – also often referred to as a Job Safety Analysis (JSA), Hazard Task Analysis (HTA), or a job hazard breakdown -- is one of the most effective tools to prevent injuries and illnesses.

## Job Hazard Analysis

A JHA works by identifying existing or potential hazards associated with a particular job. These are the basic steps:

- **Identify job tasks.**

Break down into individual steps each task employees perform at a work site.

- **Find potential hazards.**

Look at the job, materials, equipment, tools, and environment for possible hazards and situations that may cause harm. Get input from all employees in the workgroup. Different people may notice different safety concerns.

- **Assess the risks.**

Evaluate the level of risk for each identified hazard. Prioritize each on a “worst first” basis. Consider its effects on you, your co-workers, the property, the community, and the environment.

- **Create control measures.**

Find ways to control the identified hazards to create a safe workplace.

Controlling hazards may include:

- **Elimination**

Physically removing the hazard from the workplace is the most effective hazard control.

- **Substitution**

Similar to elimination, substitution involves replacing the hazard with something less hazardous.

- **Engineering Controls**

These protections physically isolate people from hazards. Examples include:

- enclosures;
- barriers;
- guarding;
- baffles; and
- relocation.

- **Administrative Controls**

Also referred to as Management Controls or Work Practice Controls, these are changes to the way people work. Examples include:

- procedure changes;
- employee training;
- job rotations;
- ensuring adequate rest breaks;
- adjusting assembly line speeds; and
- installing signs and warning labels.



- **Personal Protective Equipment (PPE)**

This is the least effective means of controlling hazards because many factors can render PPE ineffective. PPE should always be considered the last line of defense and not the primary strategy for control. Whenever possible, controls should be adopted that lessen the need to rely on PPE for worker protection.

- **Communicate and monitor the program.**

Inform workers, supervisors, and other stakeholders about the identified hazards and control measures. Regularly review the program and assess the results. Make changes as needed and any time a job condition or physical effect changes.

For more information on recognizing workplace hazards or conducting a JHA, download DWC’s Job Hazard Analysis Workplace Program ([English/Spanish](#)) or Job Hazard Analysis Safety Training Program ([English/Spanish](#)).

If your company would like free, confidential assistance identifying and eliminating occupational hazards in your workplace or complying with OSHA standards, contact a DWC Occupational Safety and Health Consultation (OSHCON) professional at 800-252-7031, option 2, or [OSHCON@tdi.texas.gov](mailto:OSHCON@tdi.texas.gov). For more information, visit [www.txoshcon.com](http://www.txoshcon.com).

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HSE RISK MATRIX							
CONSEQUENCES		SEVERITY	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
		People	Slight Injury	Minor Injury	Major Injury / Health effects	Single Fatality / Permanent total disability	Multiple Fatalities / Permanent total disability
		Environment	Slight Impact	Minor Impact	Moderate Impact	Major Impact	Massive Impact
		Asset	Slight Damage	Minor Damage	Local Damage	Major Damage	Extensive Damage
		Reputation	Slight Impact	Limited Impact	Considerable Impact	Major National Impact	Major International Impact
LIKELIHOOD	E Almost Certain	Incident has occurred several time in company	E1	E2	E3	E4	E5
	D Likely	Incident has occurred more than once per year in company	D1	D2	D3	D4	D5
	C Possible	Incident has occurred in company or more than once in industry world wide	C1	C2	C3	C4	C5
	B Unlikely	Incident has occurred in industry world wide	B1	B2	B3	B4	B5
	A Remotely likely to happen	Never heard of in industry world wide but could occur	A1	A2	A3	A4	A5

## References

<sup>1</sup>National Safety Council, "June is National Safety Month." <https://www.nsc.org/workplace/national-safety-month>. Accessed May 29, 2023.

<sup>2</sup>National Safety Council, "National Safety Month: Hazard Recognition." <https://youtu.be/Sl10kjXtpJc>. Accessed May 29, 2023.



[www.txsafetyatwork.com](http://www.txsafetyatwork.com)

**1-800-252-7031, Option 2**

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