

# UNDERLYING CAUSES OF INJURY AND ILLNESS



## Workplace Injuries and Illnesses

Why do workplace injuries and illnesses happen? There could be multiple underlying causes. Don't settle for easy answers; always look deeper. Try to identify underlying problems before an accident occurs. If there is an accident or "near miss," learn from it. There are usually multiple factors that contribute to an incident, so examine all the possibilities. The following list may help. Look at:

### Job Tasks and Procedures

- Physical and mental demands of a task
- Pace of work and overall workload
- Clear, realistic procedures for job tasks
- Emergency procedures
- Conflicts between policy and practice (shortcuts)

### Work Environment

- Equipment/tools/materials—design, selection, and maintenance
- Work area/facility layout and space
- Air quality, temperature, noise, and lighting
- Access to safety and emergency equipment



### Management and Organization

- Safety program
- Safety culture—commitment of resources for safety and accountability
- Communication and reporting systems
- Regular inspection and maintenance
- Staffing and scheduling



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### Workforce Factors

- Work experience
- Training
- Fatigue
- Stress
- Attitude and perception of risk

## Tools for Looking at Underlying Causes

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Many tools can be used in the workplace to identify underlying causes of actual or potential injury and illness. Employees, supervisors, health and safety committee members, and health and safety professionals may all be involved in using these tools. Whether preventing an incident, or learning from one, it's important that any analysis be fact-finding, not fault-finding, or it may do more harm than good. If human error is identified as the cause of an incident, a good analysis always goes deeper and asks why the error was made. This type of inquiry is often called a systems approach.

## After an Injury or Illness

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An investigation after an illness, injury, or “near miss” occurs is usually referred to as an accident or incident investigation. The purpose is to understand what happened in order to avoid anything similar from occurring in the future. Even the most straightforward accidents are seldom due to a single cause. So a thorough investigation looks at multiple, underlying causes (sometimes called “root causes”). It's important to investigate accidents as soon as possible. Investigators gather information (including physical evidence, interviews, and documents), analyze it, draw conclusions, and make recommendations. The investigators must keep an open mind, rather than make easy assumptions.

## Before the fact

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One way to avoid injuries and illnesses in the first place is to conduct an analysis of each task, process, and/or material used in the workplace. This is called a job hazard analysis (JHA), job task analysis, or job safety analysis (JSA). A job is broken into the specific steps involved and each step is examined to identify potential hazards and recommended safety precautions. A JHA is done by observing the job and asking what could potentially go wrong, taking into account multiple factors. The job observation should not be used to uncover individual unsafe acts. The job, not the individual, is being studied. The results should be shared with all workers who are, or may be, doing that job. The analysis should be revised whenever equipment, materials, processes, or the environment change.

Adapted from materials developed for The Worker Occupational Safety and Health Training and Education Program (WOSHTEP).