

## Employee Accident and *Close Call* Investigation



Guidelines for the Investigation of  
Accidents and *Close Calls*

# Accident Investigation



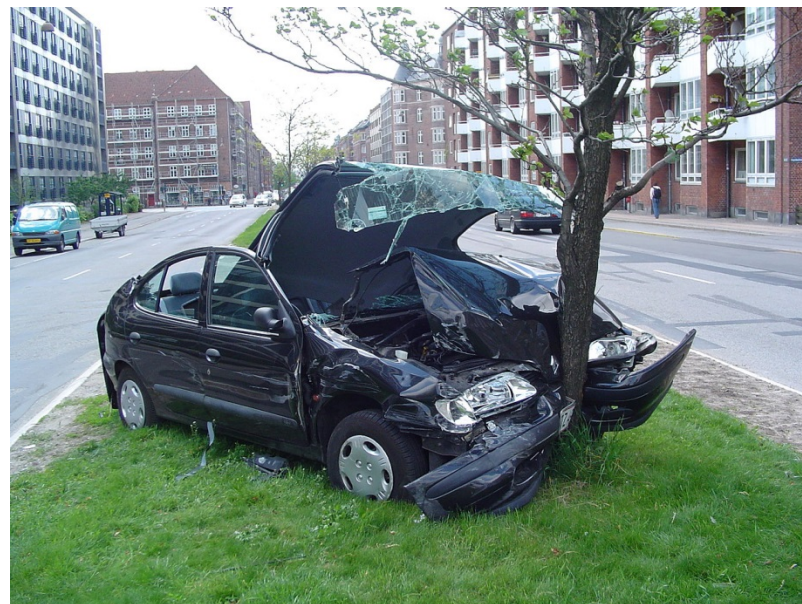
# Topics

- What is an accident vs incident
- Why should you investigate both
- How to find the root cause
- How to conduct an investigation
- What should the results look like

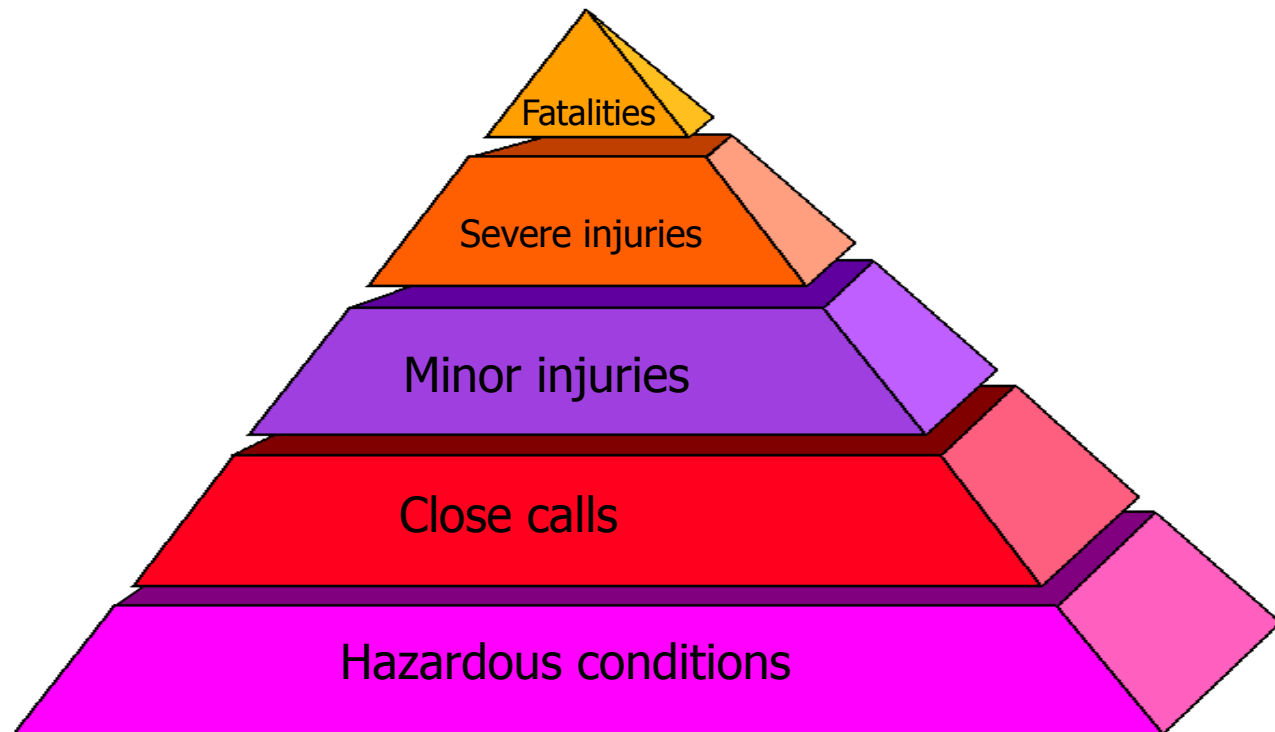
# What is an Accident?

- An unplanned, unwanted, but controllable event which disrupts the work process and causes injury to people.

An accident stops the normal course of events and causes property damage or personal injury, minor or serious, and occasionally results in a fatality.



# What is an Accident?



# What is an Incident?

- An unplanned and unwanted event which disrupts the work process and has the potential of resulting in injury, harm, or damage to persons or property.
- An incident may disrupt the work process, but does not result in injury or damage. It should be looked as a “wake up call”. It can be thought of as the first of a series of events which could lead to a situation in which harm or damage does occur.



# What Causes Most Accidents?

- According to the State of Oregon:
  - Hazardous conditions account for \_\_\_\_% of all workplace accidents.
  - Unsafe/inappropriate behaviors account for \_\_\_\_% of all workplace accidents.
  - Uncontrollable acts account for \_\_\_\_% of all workplace accidents.
  - Management is able to control factors that produce \_\_\_\_% of all workplace accidents.

# What Causes Most Accidents?

- According to the State of Oregon:
  - Hazardous conditions account for 3% of all workplace accidents.
  - Unsafe/inappropriate behaviors account for \_\_\_\_% of all workplace accidents.
  - Uncontrollable acts account for \_\_\_\_% of all workplace accidents.
  - Management is able to control factors that produce \_\_\_\_% of all workplace accidents.

# What Causes Most Accidents?

- According to the State of Oregon:
  - Hazardous conditions account for 3% of all workplace accidents.
  - Unsafe/inappropriate behaviors account for \_\_\_\_% of all workplace accidents.
  - Uncontrollable acts account for 2% of all workplace accidents.
  - Management is able to control factors that produce \_\_\_\_% of all workplace accidents.



# What Causes Most Accidents?

- According to the State of Oregon:
  - Hazardous conditions account for 3% of all workplace accidents.
  - Unsafe/inappropriate behaviors account for 95% of all workplace accidents.
  - Uncontrollable acts account for 2% of all workplace accidents.
  - Management is able to control factors that produce \_\_\_\_% of all workplace accidents.

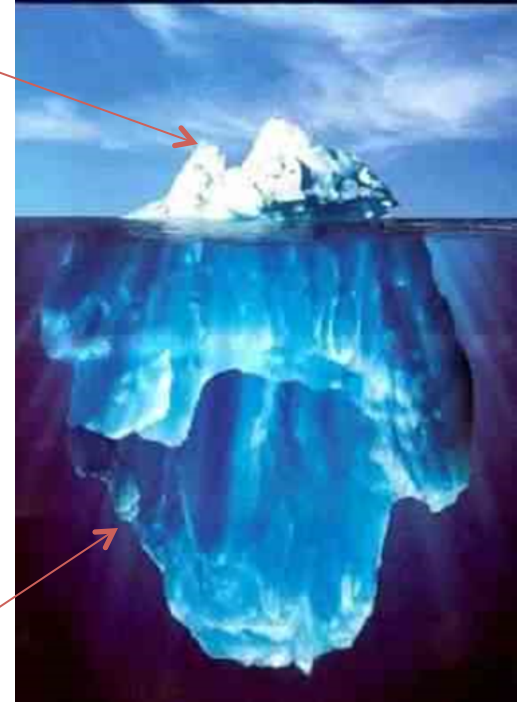
# What Causes Most Accidents?

- According to the State of Oregon:
  - Hazardous conditions account for 3% of all workplace accidents.
  - Unsafe/inappropriate behaviors account for 95% of all workplace accidents.
  - Uncontrollable acts account for 2% of all workplace accidents.
  - Management is able to control factors that produce 98% of all workplace accidents.

# The Tip of the Iceberg

Accidents

- Accidents or injuries are the tip of the iceberg of hazards.
- Investigate incidents since they are potential accidents in progress.

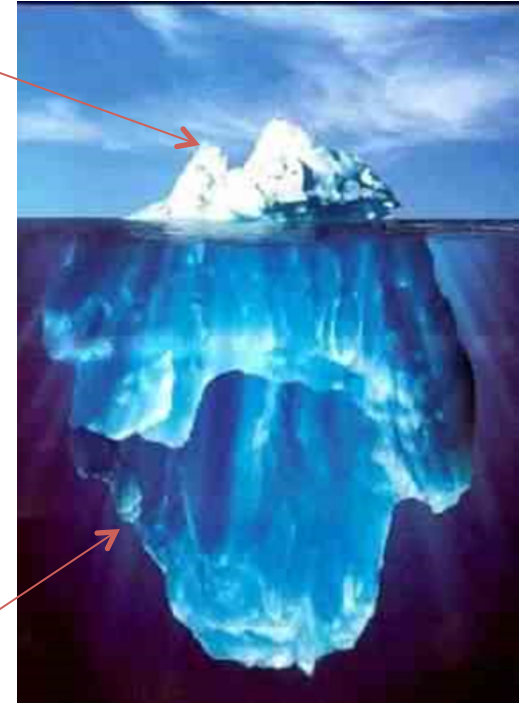


Incidents

# What do Accidents Cost You?

## Direct – Insured Costs

- Workers Comp Premiums
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- Lost time
  - Investigation of accident
  - Legal Fees
  - Training costs for new employees
  - Damage to tools and equipment
  - Lower morale



## Indirect – Uninsured, Hidden Costs – Out of Pocket

# The "Accident Weed"

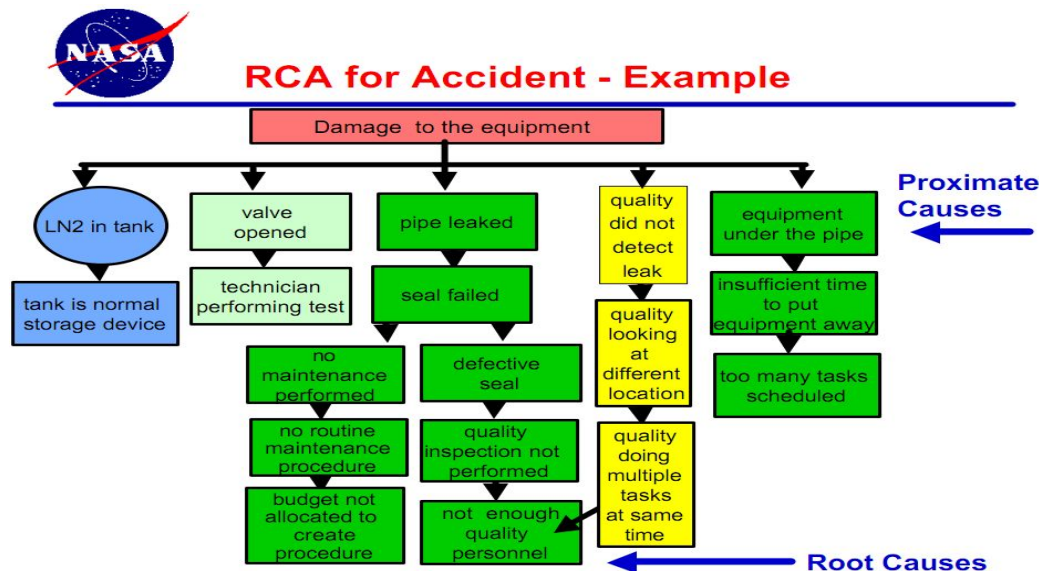


# Root Causes Analysis

- Direct Cause – Unplanned release of energy or hazardous materials
- Indirect Cause – Unsafe acts and/or unsafe conditions
- Root Cause – Policies and decisions
- Root causes are:
  - Specific underlying causes
  - Those that can be reasonably identified
  - Those that management has control to fix
  - Those for which effective recommendations can be made

# Steps in the Root Cause Analysis Process

- Data Collection
- Causal Factor Charting (defined- the agents that directly result in one event causing another)
- Root Cause Identification
- Recommendation Generation and Implementation



# The Five Whys

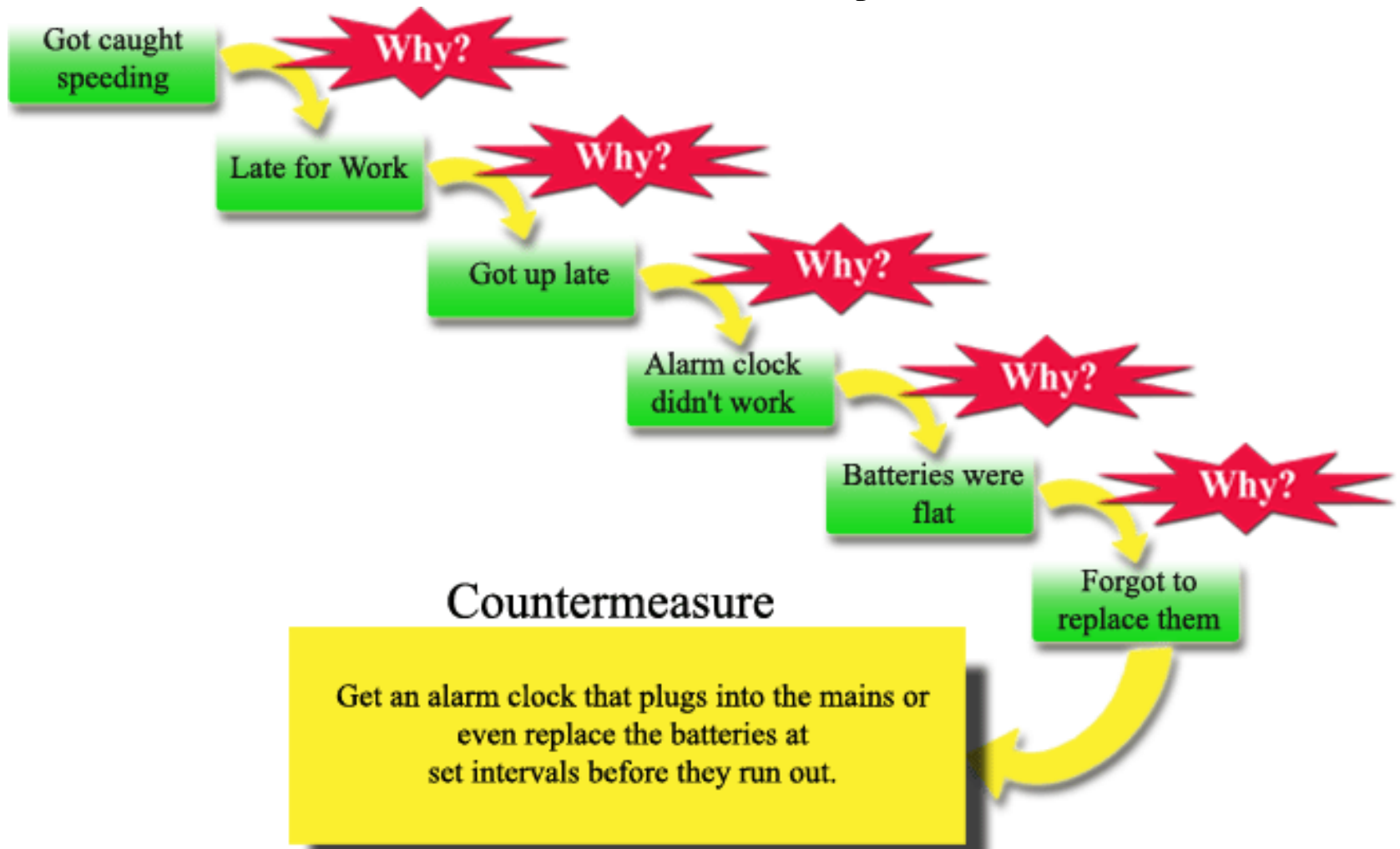
- Basic Question – Keep asking “What caused or allowed this condition/practice to occur?” until you get to the root cause.
  - The five whys is one of the simplest of the root cause analysis methods. It is a question-asking method used to explore the cause/effect relationships underlying a particular problem. Ultimately, the goal of applying the 5 whys method is to determine a root cause of a defect or problem.
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My car will not start – The Problem

- 1) Why? – The battery is dead. (first why)
- 2) Why? – The alternator is not functioning. (second why)
- 3) Why? – The alternator belt has broken. (third why)
- 4) Why? – The alternator belt was well beyond its useful service life and has never been replaced. (fourth why)
- 5) Why? – I have not been maintaining my car according to the recommended service schedule. (fifth why and the root cause)



# The Five Whys



# Benefit of Asking the Five Whys

**Simplicity.** It is easy to use and requires no advanced mathematics or tools.

**Effectiveness.** It truly helps to quickly separate symptoms from causes and identify the root cause of a problem.

**Comprehensiveness.** It aids in determining the relationships between various problem causes.

**Flexibility.** It works well alone and when combined with other quality improvement and trouble shooting techniques.

**Engaging.** By its very nature, it fosters and produces teamwork and teaming within and without the organization.

**Inexpensive.** It is a guided, team focused exercise. There are no additional costs.

Often the answer to the one “why” uncovers another reason and generates another “why.” It often takes “five whys” to arrive at the root-cause of the problem. You will probably find that you ask more or less than “five whys” in practice.

# Why Should you Investigate?

- Prevent future incidents
- Identify and eliminate hazards
- Expose deficiencies in process and/or equipment
- Reduce injury and workers' compensation costs
- Maintain worker morale

# Investigate All Incidents and Accidents

- Conduct and document an investigation that answers:
  - Who was present?
  - What activities were occurring?
  - What happened?
  - Where and what time?
  - Why did it happen?

[Sample Investigation Form](#)

Root causes should be determined. Example: An employee gets cut. What is the cause? It is just the saw or knife or the sharp nail. Was it a broken tool and no one reported? Did someone ignore a hazard because of lack of training, or a policy that discourages reporting? What are other examples of root causes? *Enforcement failure, defective PPE, horseplay, no recognition plan, inadequate labeling.*

# How to Investigate

- Develop a plan
- Assemble an investigation kit
- Investigate all incidents and accidents immediately
- Collect facts
- Interviews
- Write the report

# How to Investigate

- Develop a plan
  - This must be done ahead of time.
  - Your plan could include:
    - Who to notify in the workplace?
    - How to notify outside agencies?
    - Who will conduct the internal investigation?
    - Who decides what corrections will be made?

# How to Investigate

- What should be in the investigation kit

Camera

Tape recorder

Tape measure

High visibility tape

Scissors

Scotch tape

Sample containers with labels

First aid kit

Gloves

Report forms

PPE



# How to Investigate



- Begin investigation right way
  - It is very important to collect evidence and interview witnesses as soon as possible because people sometimes forget things as time passes. Evidence can also disappear over time.



# How to Investigate

- Collect the facts – Its all about **Fact Finding**
  - Witnesses and physical evidence
  - Position of tools and equipment
  - Equipment operation logs, charts, records
  - Maintenance records
  - Training documents

# How to Investigate

- Collect the facts – Its all about **Fact Finding**
  - Take copious notes of the conditions
  - Note the housekeeping condition
  - Note floor or working surface condition
  - Take lots of pictures
  - Draw the scene on paper if that helps

# How to Investigate

- Write the Report
  - How and why did the accident happen?
  - List the suspected causes and human factors
  - Use the information you gathered from your photos, witness statements, physical evidence



# How to Investigate

- Conclusions of the report
  - What should happen to prevent future accidents?
  - Are additional resources needed?
  - Who is responsible for making any changes?
  - Who is responsible for the follow up?
  - What are the new procedures?

# OSHA Reporting

- You must contact OSHA for:
  - All work-related fatalities within 8 hours
- Within 24 hours, all work-related:
  - Inpatient hospitalizations
  - Amputations
  - Losses of an eye

# Summary of Accident Investigation

- Clear written procedures
- Clearly assigned responsibility of conducting the investigations
- Train all accident investigators
- Separate the investigation from any disciplinary procedures
- Write the report
- Follow up
- Conduct annual review of the accident reports

# Additional Resources

- [OSHA](#)
- [National Safety Council](#)
- [Washington Labor & Industries](#)
- [Oregon OSHA](#)

# Questions? Comments?





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

# For Assistance or Additional Information

Contact



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