

Unit 1a

Examples of Teen Work Injuries

John's Story



Job: Fast food worker

Injury: Slipped on greasy floor

Why do you think this happened?

What could have prevented John from getting hurt?

Examples of Teen Work Injuries

Antonio's Story

Job: Construction helper
Injury: Fell from roof

Why do you think this happened?
What could have prevented Antonio from being killed?



Examples of Teen Work Injuries

Keisha's Story

Job: Computer data entry
Injury: Repetitive stress injury

Why do you think this happened?
What could have prevented Keisha from getting hurt?



Examples of Teen Work Injuries

Dakota's Story

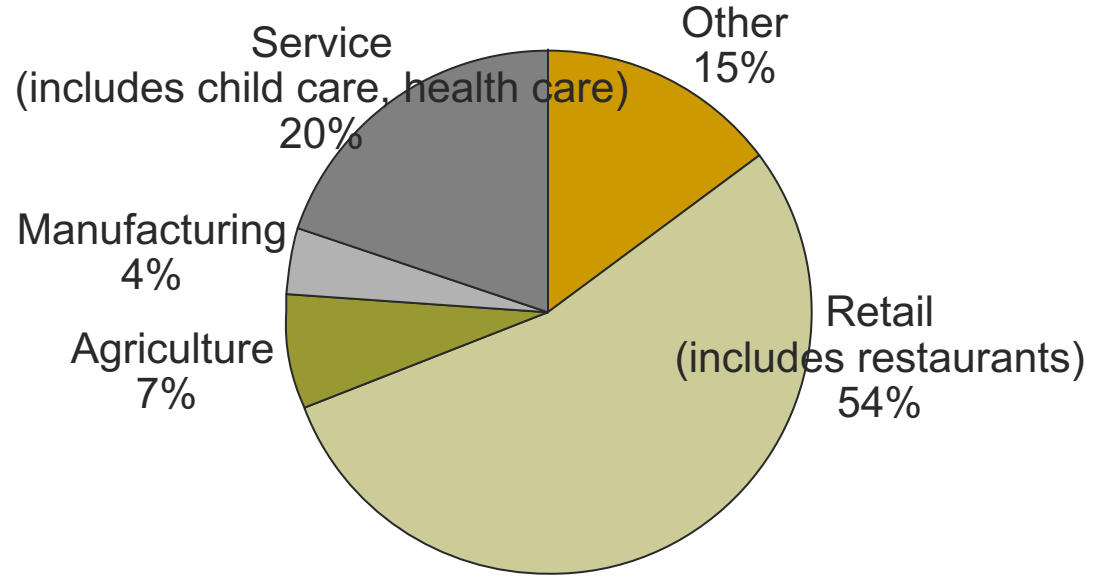
Job: Landscaping worker
Injury: Death

Why do you think this happened?
What could have prevented
Dakota from being Killed?

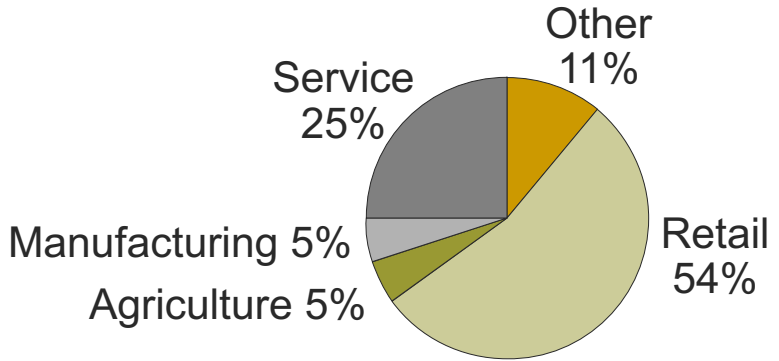


Where are Teens Injured?

Where Teens are Injured



Where Teens Work





Key Points of This Training

You will learn more about:

- Identifying and reducing hazards on the job
- What your rights are and the laws that protect teens at work
- How to solve health and safety problems at work
- Personal Protective Equipment
- Electrical Safety
- Chemical Hazards and Hazard Communication
- Preventing slips, trips and falls in the workplace
- Bloodborne Pathogens
- Ergonomics
- Workplace violence
- What agencies enforce health and safety laws and child labor laws
- Fire safety and what to do in a workplace emergency.

Unit 1b

Job Hazards: A job hazard is anything at work that can hurt you either physically or mentally.

■ **Safety hazards:** Can cause immediate accidents and injuries

- ◆ *Examples: knives, hot grease, trip hazards, sharp edges, etc.*

■ **Chemical hazards:** Are gasses, vapors, liquids, or dusts that can harm your body

- ◆ *Examples: Cleaning products, pesticides*

■ **Biological hazards:** *living things that can cause sickness or disease*

- ◆ *Examples: Bacteria, viruses, or parasites*

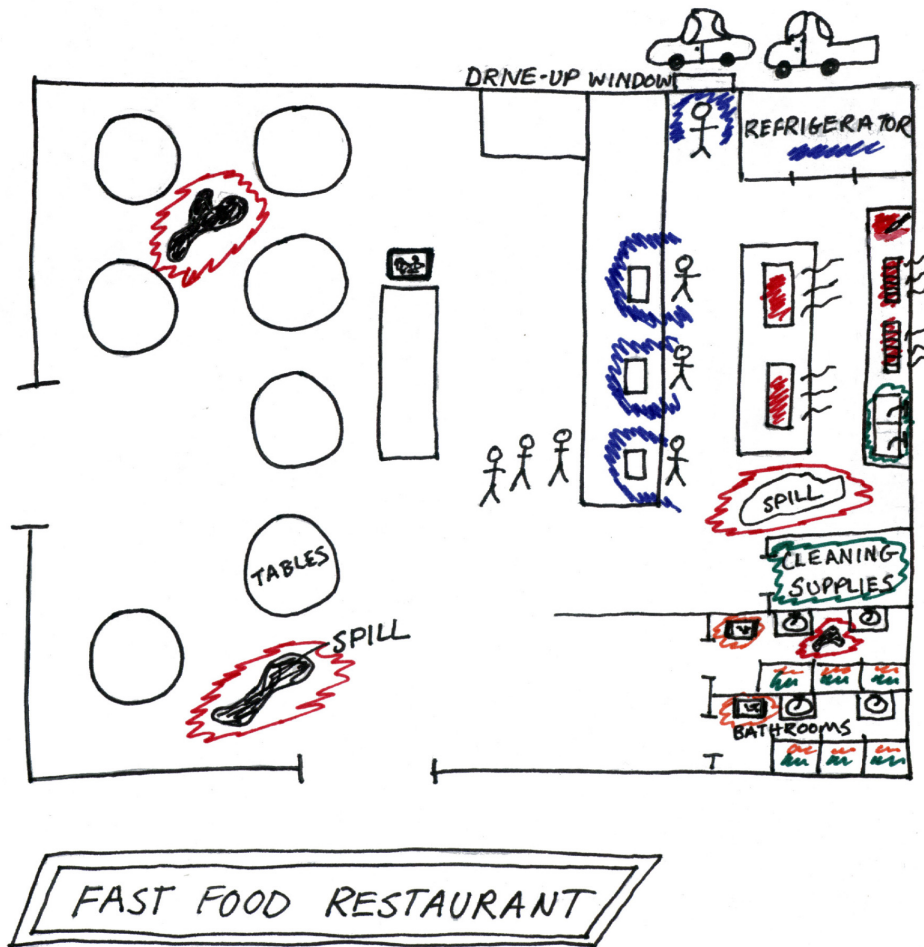
■ **Other health hazards:** Are harmful things, not in the other categories, that can injure you or make you sick. These hazards are sometimes less obvious because they may not cause health problems right away.

- ◆ *Examples: noise, repetitive movements*

Sample Hazard Map

Students will draw maps in color:

Red = Safety Hazards **Green** = Chemical Hazards **Orange** = Biological Hazards **Blue** = Other Health Hazards



SAFETY (RED)

HOT GRILL
HOT GREASE
SHARP KNIVES
SLIPPERY FLOORS

CHEMICAL (GREEN)

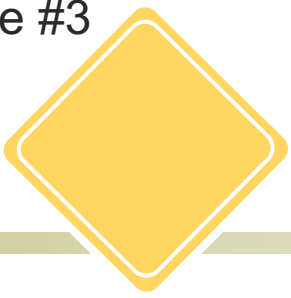
CLEANING PRODUCTS
DISHWASHING PRODUCTS

BIOLOGICAL (ORANGE)

BACTERIA
USED NEEDLES

OTHER (BLUE)

CUSTOMERS/STRESS
ROBBERY
STANDING
LIFTING



Finding Hazards: *Key Points*

- Every job has health and safety hazards
- You should always be aware of these hazards

Unit 3

Controlling Hazards: *Key Points*

- First Choice: Remove the hazard
 - use safer chemicals
 - put guards around hot surfaces

- Next Choice: Improve work policies and procedures
 - Give workers safety training
 - Assign enough people to do the job safely

- Last Choice: Use protective clothing and equipment
 - Wear gloves
 - Use a respirator

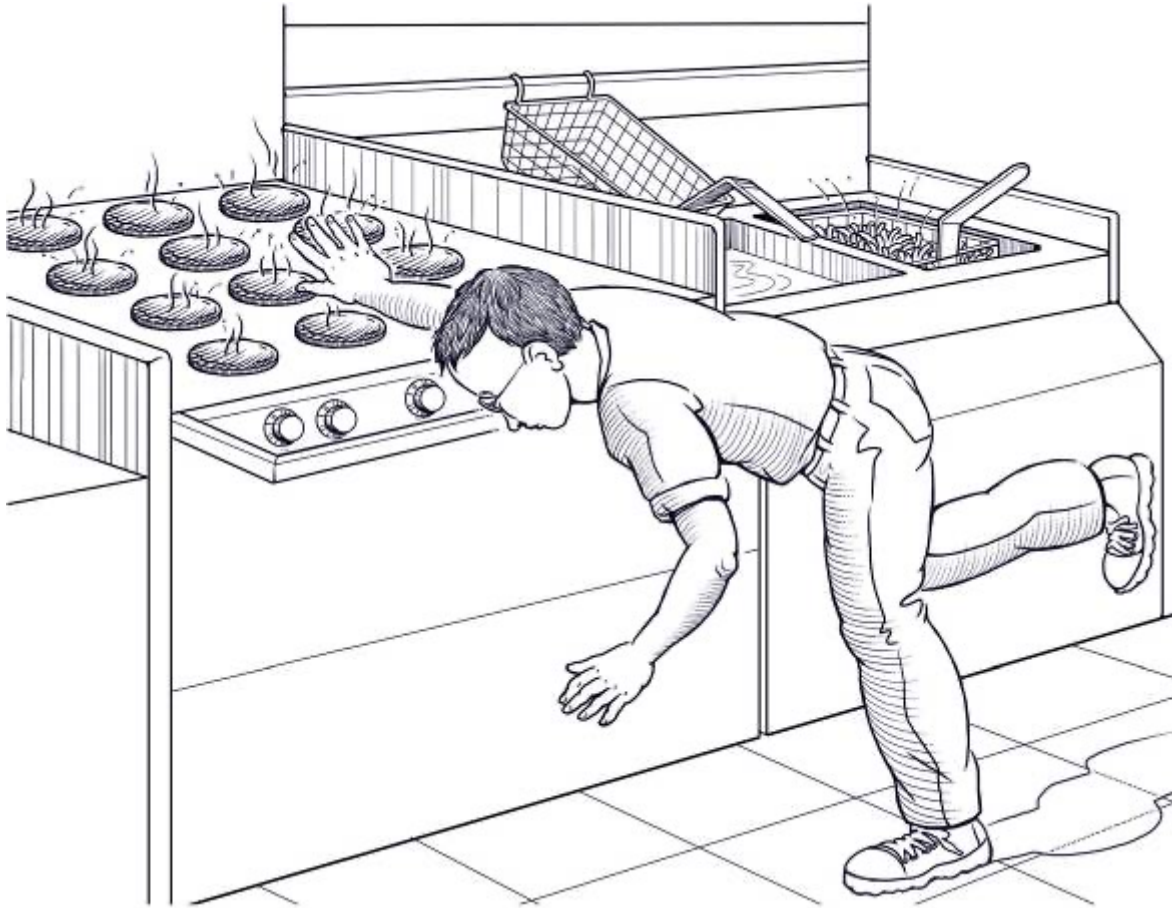
Jamie's Story



Job: Hospital dishwasher

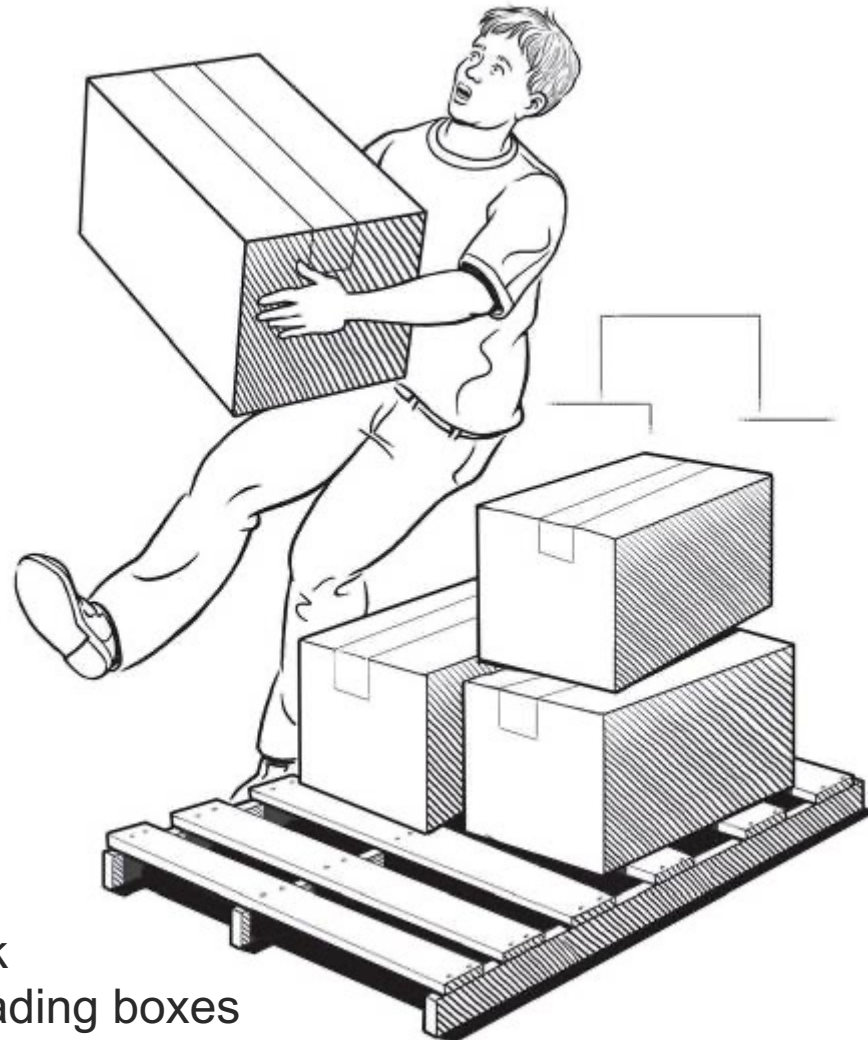
Injury: Dishwashing chemical splashed in eye

Billy's Story



Job: Fast food worker
Injury: Burned hand on grill

Stephen's Story



Job: Grocery store clerk

Injury: Hurt back while loading boxes

Terry's Story



Job: Grocery store deli clerk
Injury: Cut finger on meat slicer

Chris' Story

Job: City public works employee

Injury: Fainted due to heat



James' Story



Job: Pizza shop employee

Injury: Repetitive motion injury

Maria's Story



Job: Farmworker
Injury: Pesticide poisoning

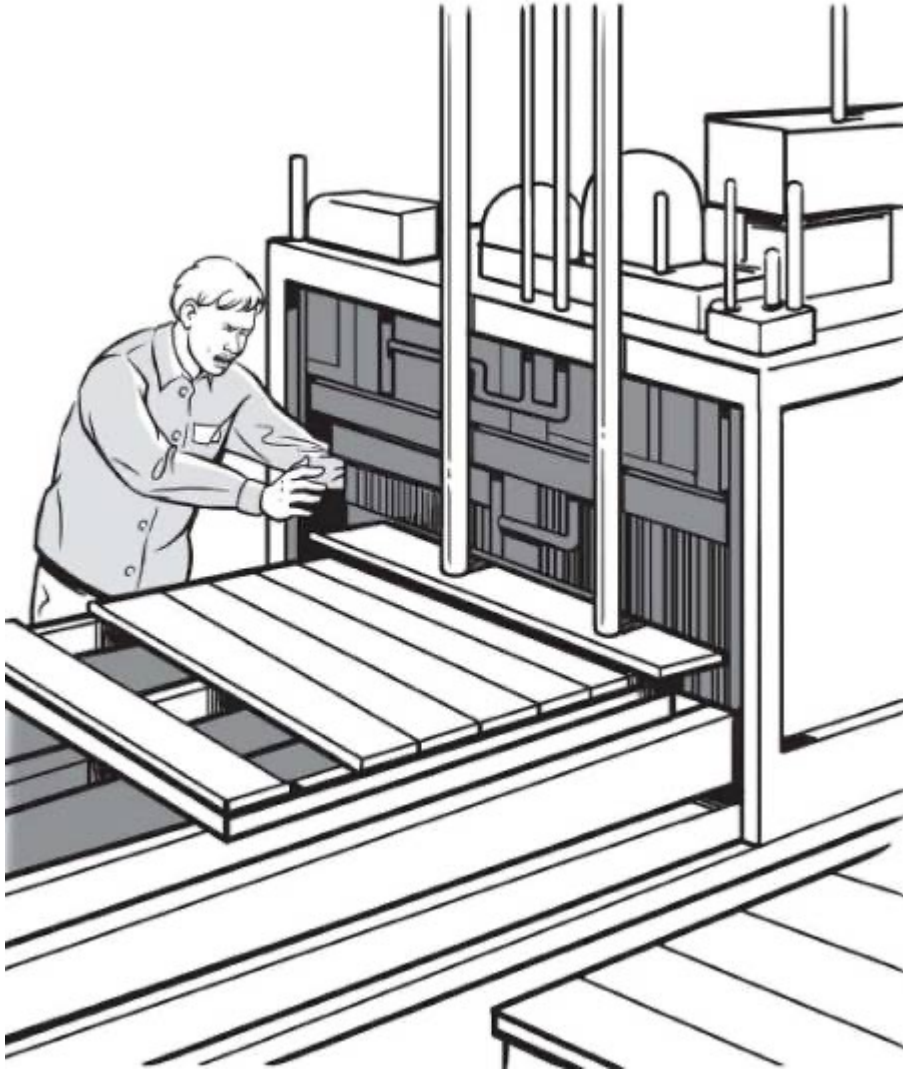
Sara's Story

Job: Nursing aide

Injury: Back, neck, and shoulder pain



Brent's Story



Job: Pallet making
Injury: Amputated arm

Making the Job Safer: *Key Points*

- OSHA requires employers to provide a safe workplace.
- It's best to get rid of a hazard completely, if possible.
- If your employer can't get rid of the hazard, there are usually many ways to protect you from it.

Unit 5



Electrical Safety

Introduction

- An average of one worker is electrocuted on the job every day
- There are four main types of electrical injuries:
 - Electrocution (death due to electrical shock)
 - Electrical shock
 - Burns
 - Falls

Electricity – How it Works

- Electricity travels in a closed circuit
- Electricity flows through *conductors*
 - water, metal, the human body

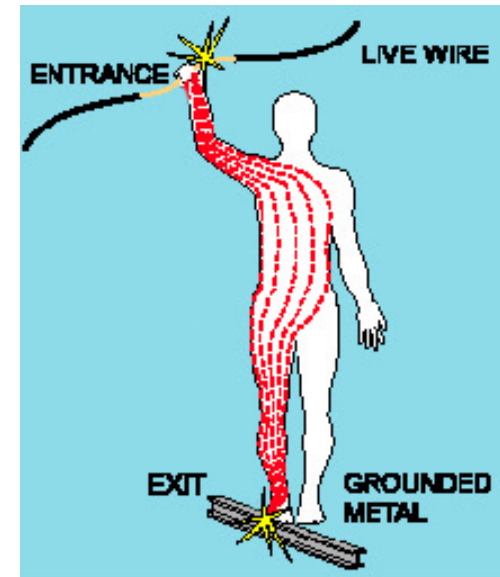


**The human body
is a conductor!**



Electrical Shock

- Received when current passes through the body
- Severity of the shock depends on:
 - Path of current through the body
 - Amount of current flowing through the body
 - Length of time the body is in the circuit
- **LOW VOLTAGE DOES NOT MEAN LOW HAZARD**



Body as path to ground



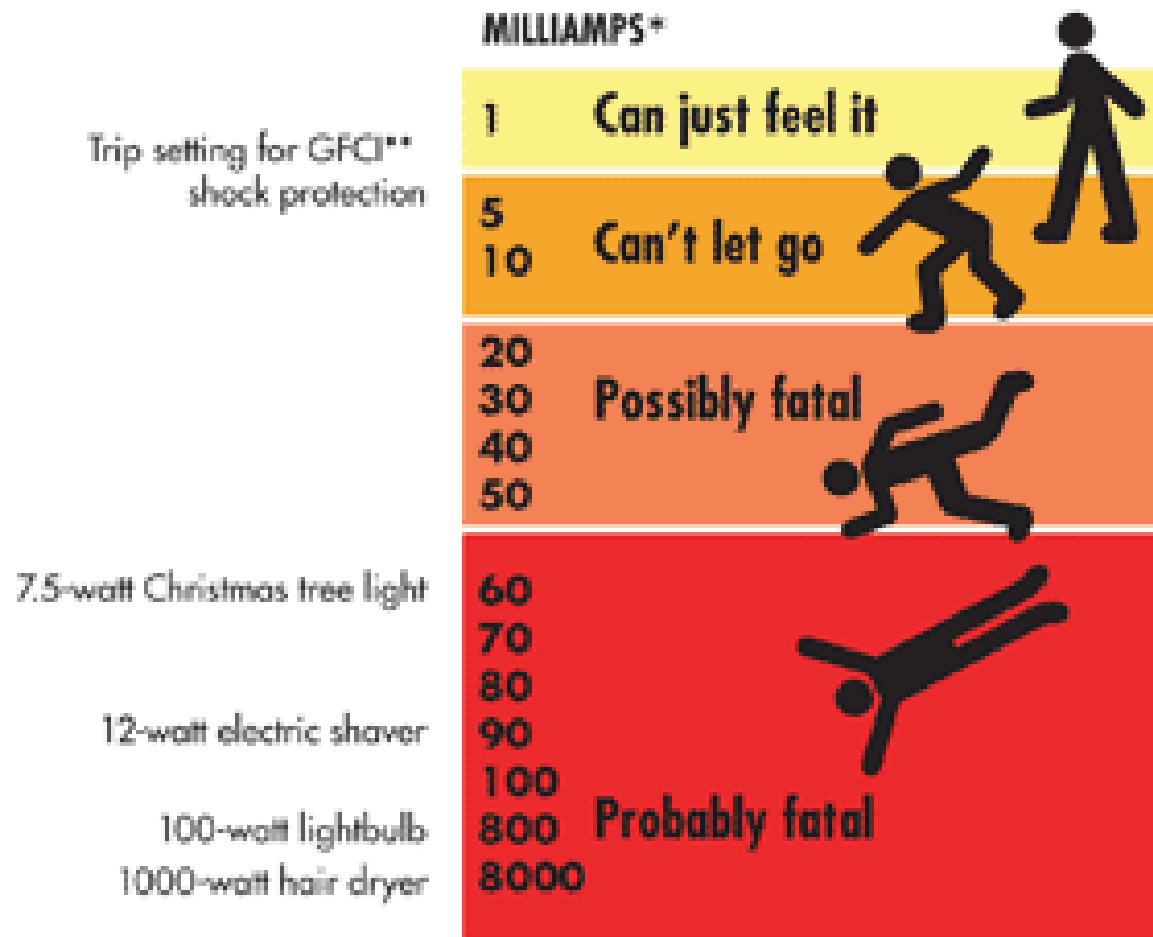
Dangers of Electrical Shock

- Currents $> 75 \text{ mA}^*$ can cause ventricular fibrillation (rapid, ineffective heartbeat)
- Will cause death in a few minutes unless a defibrillator is used



75 mA is not much current
– a small power drill uses
30 times as much

Just a Little Current Can Kill

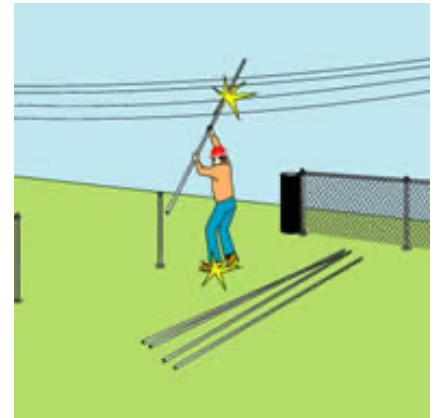


* A milliamp is 1/1000th of an ampere, a measure of electrical current.

** A GFCI is a ground fault circuit interrupter, a device that protects against serious shock.

Electrical shock

- Affects your breathing, heart, brain, nerves and muscles
- “Blows the fuses” in your body
- Electrocution (a fatal shock) is one of the leading causes of death of young workers





What to do if someone is shocked by electricity?

- Disconnect the power
- Call emergency medical services, or 911

Use appropriate first aid and CPR techniques only if you are trained to do so





What to do if someone is shocked by electricity?

Don't

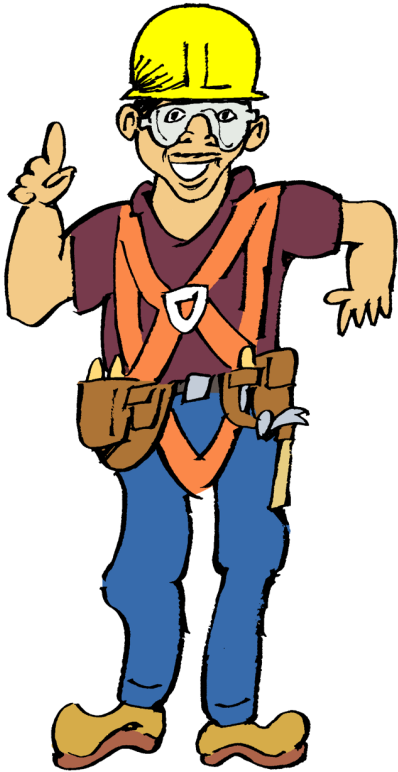
- Don't touch the victim unless you are certain that the power has been shut off. If you do, you must be the next victim!
- Don't touch bare wires, power lines, or power company equipment
- Don't try to put out a fire started by electricity with water. The water can conduct electricity

Electrical Injuries: Burns

- Most common shock-related, nonfatal injury
- Occurs when you touch electrical wiring or equipment that is improperly used or maintained
- Usually occurs on the hands
- Very serious injury that needs immediate attention



Electrical injuries: Burns



Electricity can ‘cook’ internal organs or cause internal bleeding!

Internal effects may happen days later

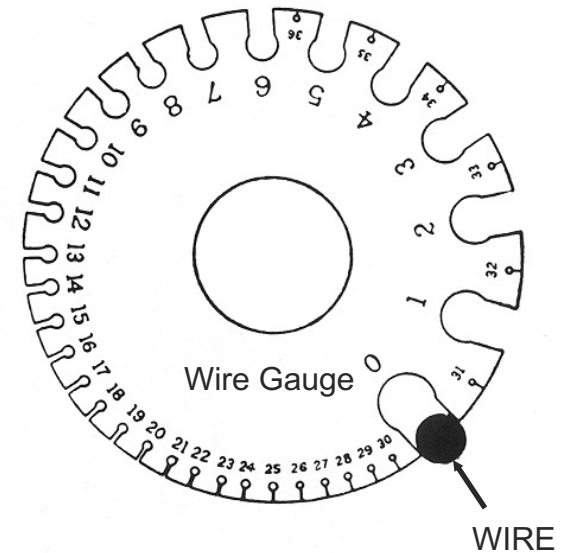
Electrical injuries: Falls

- Electric shock can also cause **indirect** or **secondary** injuries
- Workers at heights who experience a shock can fall, resulting in serious injury or death



Inadequate Wiring Hazards

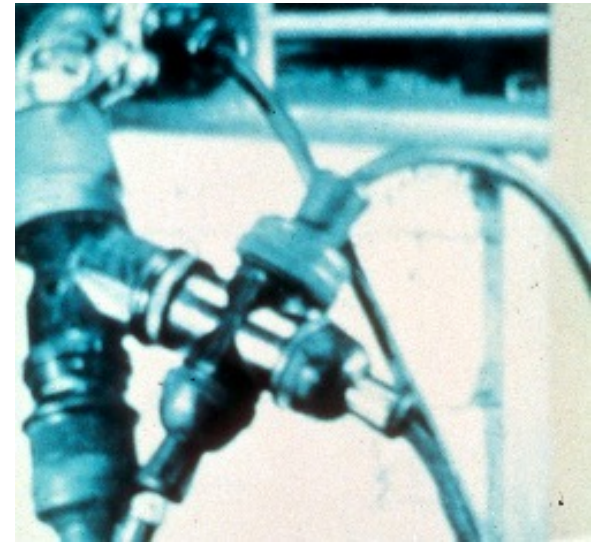
- Conductor is too small to safely carry the current
 - *E.g.* portable tool with extension cord too small for the tool
 - = Cord can overheat and cause fire without tripping the circuit breaker
 - = Breaker could be the right size for the circuit but not for the extension cord



Wire gauge measures wires ranging in size from number 36 to 0 American wire gauge (AWG)

Overload Hazards

- Too many devices plugged into a circuit
 - Overheated wires can cause a fire
 - If insulation melts, arcing could cause a fire, even inside a wall

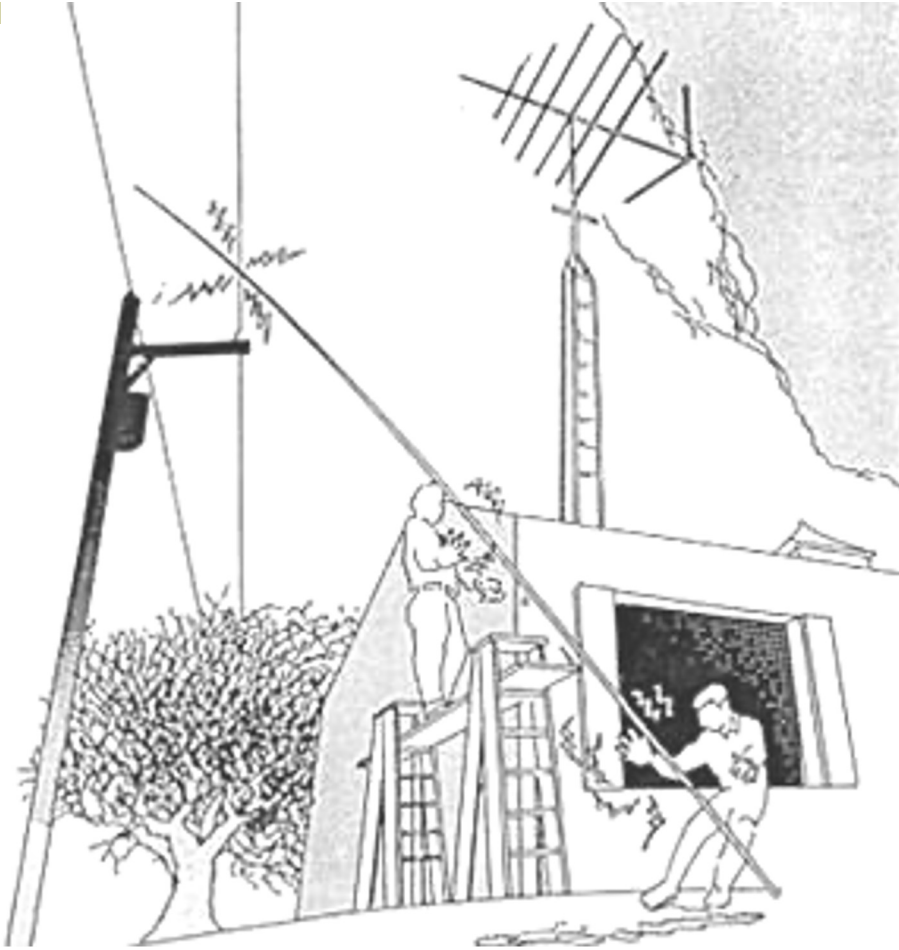


Overhead Powerline Hazards

- Overhead powerlines are usually not insulated
- Powerline workers need special training and personal protective equipment (PPE) to work safely
- Do not use metal ladders – instead, use fiberglass ladders
- Beware of powerlines when you work with ladders and scaffolding



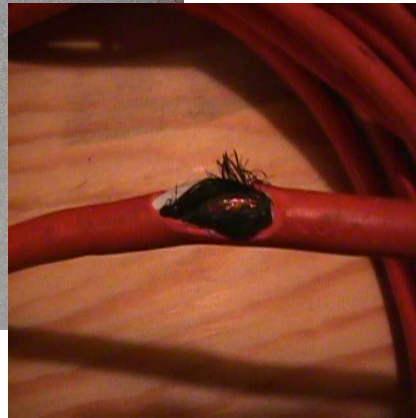
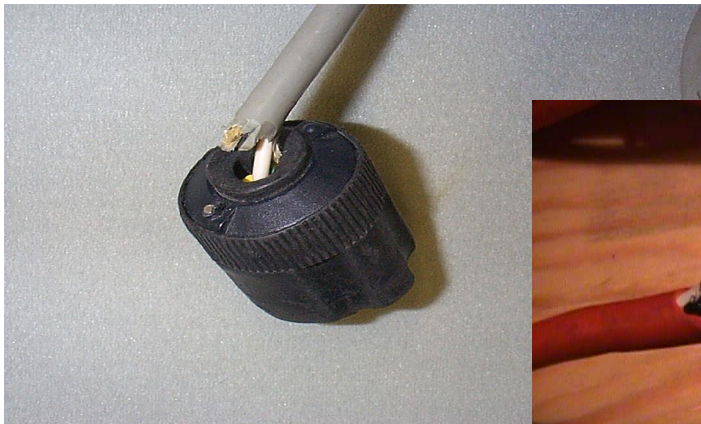
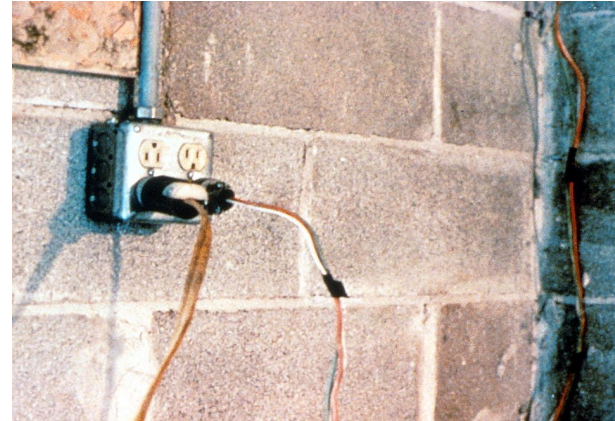
Overhead Line Incident



- **Two workers were attempting to remove a metal pole.**
- **Pole made contact with 7200 volts.**
- **One worker died.**

Defective Extension Cords

Plastic or rubber covering is missing



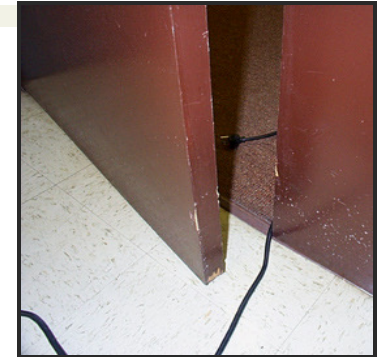
Damaged extension cords & tools

Damaged Cords

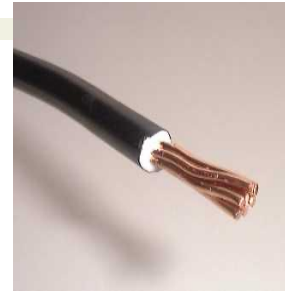
Cords can be damaged by:

- Aging
- Door or window edges
- Staples or fastenings
- Abrasion from adjacent materials
- Activity in the area

Improper use of cords can cause shocks, burns or fire



Taking care of electric cords & wires



- ✓ Check before use
- ✓ Use only cords that are 3-wire type
- ✓ Use only cords marked for hard or extra-hard usage
- ✓ Cords not marked for hard or extra-hard use, or which have been modified, must be taken out of service immediately



Extension Cord Use

- ✓ Do not pass through holes in walls, floors, or ceilings or through windows or doors
- ✓ Do not run behind building walls, ceilings, or floors
- ✓ Do not drive over them
- ✓ Do not attach to building surfaces (including hanging them from nails, staples or bare wire)
- ✓ Do not lay out in a manner that can cause tripping
- ✓ Do not use as a substitute for the fixed wiring of a structure



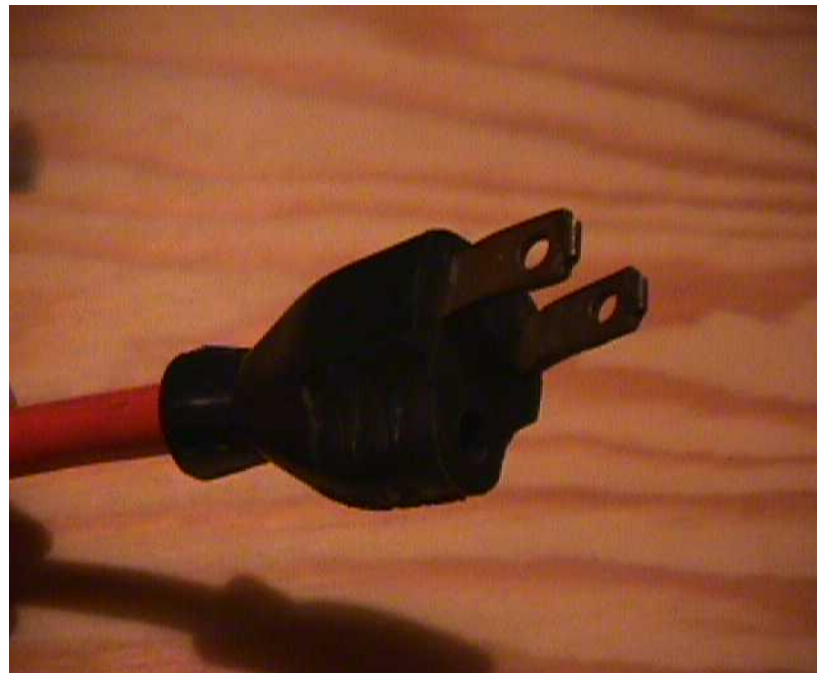
Be aware of the environment you will be working in. If the environment is wet or damp, use equipment and cords designed for that situation!



Hazard Control: Grounding

- Grounding provides a safe pathway for electricity to travel
- Proper grounding helps prevent electrical shock
- If you come into contact with an improperly grounded electrical device, **YOU WILL BE SHOCKED**
- **Double insulated** tools do not need to be grounded

Do Not Eliminate the Ground!



You' ll become the next-best path for current!

Electrical Protective Devices

- Shut off electricity flow in the event of an overload or ground-fault in the circuit
- Examples: Fuses, circuit breakers, and ground-fault circuit-interrupters (GFCI' s)
- Fuses and circuit breakers are overcurrent devices
 - ◆ When there is too much current:
 - Fuses melt
 - Circuit breakers trip open

Ground-Fault Circuit Interrupter

- Protects you from dangerous shock
- Detects current leakage from a circuit to a ground and shuts the current off.
- Can shut off electricity flow in as little as 1/40 of a second, protecting you from a dangerous shock



Remember...

- **Circuit Breakers and Fuses** *protect the building, equipment, and tools*
- **GFCI** is the only device which will *protect the worker* from shock and electrocution!

Fuses and circuit breakers protect equipment, not people, and don't protect against shocks and electrocutions!



Equipment must be grounded if it' s...

- Within 8' vertically and 5' horizontally of the floor or walking surface.
- Within 8' vertically and 5' horizontally of grounded metal objects you could touch.
- Used outdoors.
- Located in a wet or damp area and is not isolated.
- Connected to a power supply by cord and plug and is not double insulated. (The third prong in portable tools and extension cords supplies grounding.)



What is Lockout/Tagout?

- De-energize (shut down) equipment before inspecting or making repairs
- Protect employees from the unexpected startup of machinery and equipment
- Lock or tag the energy-isolating device to prevent the release of hazardous

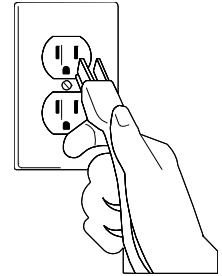


How do Lockout/Tagout Devices Work?

- **Lockout devices** can only be removed with a key or other unlocking mechanism.
- **Tagout devices** are warnings that the employee attaches to the power source to warn employees not to turn on equipment while that employee services or maintains it.



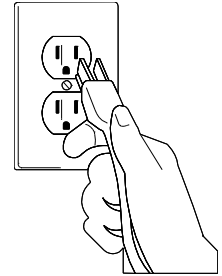
Electrical Safety: What to Look For



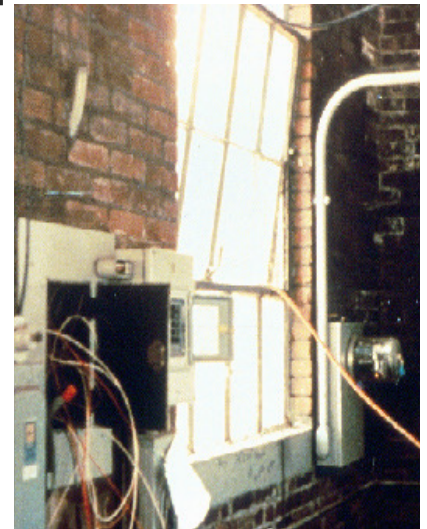
- Keep tools and cords away from heat, oil, and sharp edges.
- Do not use electrical equipment in damp or wet areas.
- Do not use electrical equipment on or near metal ladders.
- Be sure the control switch on equipment is in the “off” position before putting in or pulling out a plug.



Electrical Safety: What to Look For



- Disconnect tools and extension cords by holding the plug.
- Never break the 3rd prong off or use a plug with a broken 3rd prong.
- Use a Ground Fault Circuit Interrupter (GFCI) when using portable tools.
- Avoid using extension cords.
- Do not overload circuits.



Report Damaged Equipment IMMEDIATELY

- If tools or cords run very hot.
- If tools or cords are giving off minor shocks.
- If you see live parts.

**Do not attempt to make repairs
yourself!**

Unit 11

Emergencies at Work: *Key Points*

- Every workplace should have an emergency action plan
- *The plan should cover:*
 - ◆ What to do in different emergencies
 - ◆ Where shelters and meeting places are
 - ◆ Evacuation routes
 - ◆ Emergency equipment and alert systems
 - ◆ Who's in charge
 - ◆ Procedures to follow when someone is injured
- The workplace should provide for practice drills
- Workers should be trained on everything in the plan.

Unit 12a

WHICH FIRE EXTINGUISHER?

Point to the correct letter of fire to
extinguish the fire...



A



B



C



D



K







Magnesium recycling center

















Potassium fires are violet in color





Unit 12b

**EMERGENCY
EXIT
ONLY**

**NO
EXIT**

NO EXIT

**NOT AN
EXIT**

EXIT



(adapted from OSHA Office
of Training and Education)

Introduction

- Fires and explosions kill more than 200 and injure more than 5,000 workers each year!
- Tragic workplace fires have happened and can be prevented
- Other kinds of emergencies (e.g. explosions, earthquakes, bomb threats, toxic vapors, storms, etc) can also endanger workers.
- OSHA requires employers to provide:
 - proper exits,
 - fire fighting equipment,
 - employee training to prevent fire deaths and injuries in the workplace.



Exit Route



- An exit route is a **continuous** and **unobstructed** path from any point within a workplace to a place of safety
 - includes refuge area
- Exit routes have three parts:
 - Exit access
 - Exit (door)
 - Exit discharge

Basic Requirements



- Exit Routes must:
 - Be permanent
 - Have enough exits for a quick escape
- Exits must be separated by fire-resistant materials
- Openings into an exit must be:
 - limited to those necessary to allow access to the exit or to the exit discharge
 - protected by an approved self-closing fire door that remains closed or automatically closes in an emergency

Exit Discharge Requirements

- An exit discharge must lead directly to safe space
 - Outside, street, walkway, refuge area, public way, or open space with access to the outside
- The safe space must be large enough to accommodate everyone likely to use the exit
- Exit stairs that continue beyond where the exit discharge is located must have some effective means clearly indicating the discharge



Exit Doors Must Be Unlocked



- Everyone must be able to open exit doors from the inside at all times
 - without keys, tools, or special knowledge
 - may be locked from the inside only in mental, penal, or correctional facilities where there is constant supervision
- Device such as a panic bar that locks only from the outside is permitted
- Must be free of any device or alarm that could restrict emergency use if the device or alarm fails

Locked and
blocked exit!

Not Allowed!

Minimize Danger to Employees

- Exit routes must be:
 - Free and unobstructed
 - Free of explosive or highly flammable materials
 - Arranged so that employees will not have to travel toward a high hazard area, unless it is shielded
- Emergency safeguards must be in working order at all times
 - sprinkler systems, alarm systems, fire doors, exit lighting, etc.



Obstructed
exit route

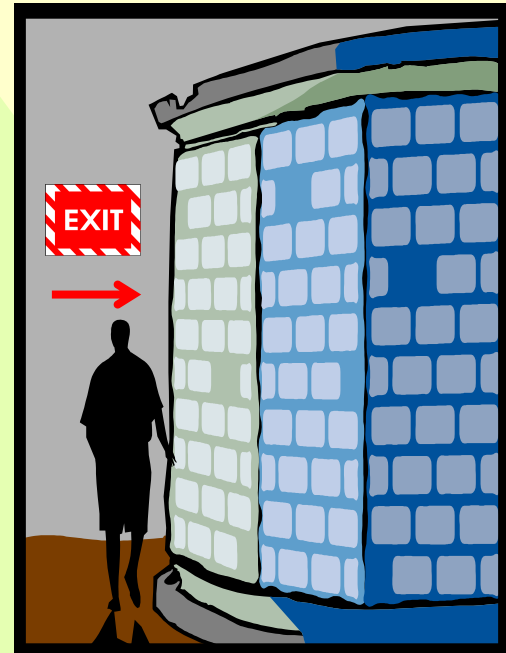
Exit Marking

- Each exit must be clearly visible and marked with an “Exit” sign
- Each exit must be free of decorations or signs that obscure the visibility of the door
- The line-of-sight to an exit sign must clearly be visible



Exit Marking (cont' d)

- If the direction of exit travel is not immediately apparent, signs must be posted indicating the direction to the nearest exit
- Doors along an exit route that could be mistaken for an exit must be marked “Not an Exit”, or be identified by a sign indicating its actual use (e.g. closet)



Importance of Safe Exit Routes

- Factors that may interfere with safe escape include:

- Panic
- Confusion
- Poor visibility
- Lack of information
- Misinformation



- These factors frequently cause more injuries and fatalities than the hazard itself
- Be prepared

Unit 13a

Slide 1

Know Your Rights

Interactive

Jeopardy

**Rights on the
Job**

**Dangerous work
& work permits**

**Hours for teens
& working safely**

**Job Injuries &
Getting Help**

100



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100



100

100

200

200

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300

300

300

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400

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400

400

500

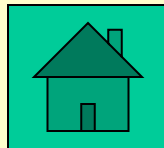
500

500

500

True.

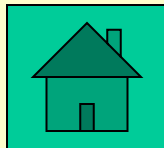
True or False?
**Your employer can't punish
you for reporting a
safety problem.**



Row 1, Col 1

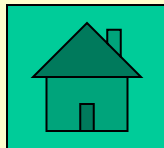
18 years old.

**How old do you have to be
to drive a forklift?**



3 hours.

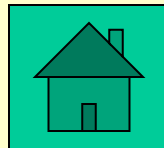
**If you are 14 or 15, how many
hours can you work
on a school day?**



1,3

False.

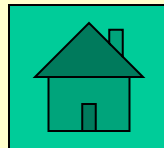
**True or False? You can
sue your employer if
you're hurt on the job?**



Check the L&I web site for the current min wage.

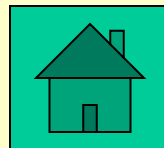
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**What's the minimum wage in
Washington?**



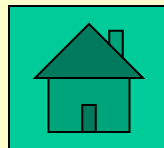
Power equipment (meat slicer, saw, bakery machine, box crusher).

**Name one kind of machinery
you can't use if you're under 18.**



7:00 pm.

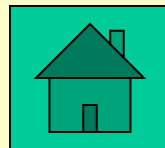
**If you are 14 or 15, how late
can you work on
a school night?**



2,3

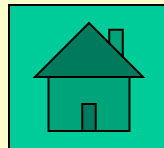
False, it is against the law for your boss to punish or fire you for a job-related injury

True or False? Your boss can punish you for getting hurt on the job.



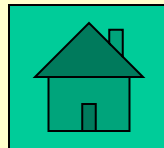
Tell your supervisor/parents, get emergency medical treatment if necessary, file a workers comp claim form

What are two things you should do if you get hurt on the job?



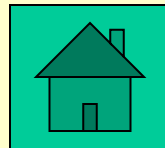
16 years old,
but you can't be more than 10 feet off the ground

**How old do you have to be
to work on a ladder or
scaffolding?**



16 hours.

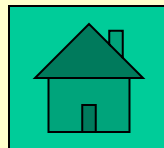
**If you're 14 or 15, how many
hours can you work in a
school week?**



3,3

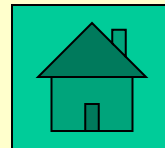
WA State Human Rights Commission, Equal
Employment Opportunity Commission.

**What's the name of the
two agencies that handle
sexual harassment complaints?**



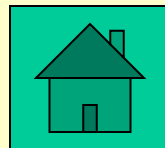
A safe and healthy workplace, Safety training, Protective clothing, Rest/Meal Breaks, Payment for medical care if injured

**Name two health
and safety protections
your employer must provide
on the job.**



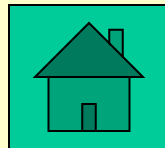
Baking, cooking, dry cleaning/laundry, using ladder or scaffold, construction, loading and unloading trucks, rail cars, or conveyors.

Name one kind of work you can't do if you're 14 or 15.

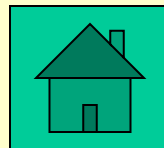


Report unsafe conditions, get safety training, follow safety rules, refuse to do something that is too dangerous, ask questions if you don't understand

Name two things you can do to prevent a job injury.

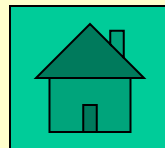


**What agency enforces the
laws about work hours
and wages in Washington State?**



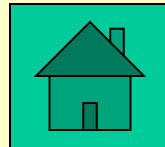
Medical care for your injury, payments if you lose wages for more than 3 days, other benefits for permanent disabilities.

**What does workers
compensation cover if you are
hurt on the job?**



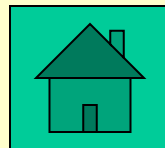
Parent/School Authorization Form

If you are 17 or younger and in school, what permit does your employer need to obtain before you start work?



10:00 PM

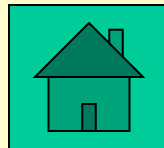
**If you are 16 or 17, how late
can you work on a
School night?**



5,3

Tell your boss, get medical treatment, fill out a claim form,
get medical treatment if needed.

**Name two things you should
do if you get hurt
on the job.**



Know Your Rights: *Key Points*

- Federal and state labor laws:
 - ◆ Set minimum age for some types of dangerous work.
 - ◆ Protect teens from working too long, too late or too early
- OSHA says every employer must provide:
 - ◆ A safe and healthy workplace
 - ◆ Safety training on certain hazards including information on dangerous chemicals.
 - ◆ Safety equipment
- By law, your employer is not allowed to fire or punish you for reporting a safety problem.

Know Your Rights

Jeopardy Game

Rights on the Job	Dangerous Work and Work Permits	Hours for Teens and Working Safely	Job Injuries and Getting Help
\$100	\$100	\$100	\$100
\$200	\$200	\$200	\$200
\$300	\$300	\$300	\$300
\$400	\$400	\$400	\$400
\$500	\$500	\$500	\$500

Unit 15

Handling Workplace Safety Problems

Steps in Problem Solving

- Define the problem
- Get advice from a parent, teacher or co-worker
- Choose your goals. Decide which solution is best.
- Know your rights
- Decide the best way to talk to the supervisor
- If necessary, contact an outside agency for help.



Summing it Up

- Know your rights:
 - ◆ The factsheet is an important resource. Show it to your friends and parents.
- Know your responsibilities:
 - ◆ It's your responsibility to follow safety rules and to report any problems you see.
- Know your employer's responsibilities:
 - ◆ Your employer must keep the workplace safe and give you safety training.
- Know how to solve problems:
 - ◆ Resources include co-workers, friends, parents, teachers, and government agencies like OSHA, and state labor law enforcement agencies.