



## Job Hazard Analysis

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### What's it called?

ABSS	JHA	RA
AHA	JSA	SJP
BMP	PCA	SOP
C&E	POA	SWP
FMEA	PHA	THA
FTA	PTP	VOE

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### Why do a JHA?

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## 4 "Woulds"

Would it truly benefit?

Would there be top management support?

Would supervisors embrace it?

Would the affected workers own it?

Source: Craig Hamelund, Oregon OSHA

They must WANT to WANT it.

Culture, anyone?

## Why a Job Hazard Analysis (JHA) also known as Job Safety Analysis (JSA)

- Effective in identifying hazards for a specific job and/or tasks
- Identifies unsafe work practices
- Eliminates/reduces injuries and illnesses
- Raises employee safety awareness
- Valuable for on-the-job training
- Tool to develop safe procedures

## What is a Job Hazard Analysis

- Specific steps to a job
- Identifies hazardous conditions and unsafe practices
- Identifies the best control measures
- Best practice: Update as incidents occur to address unforeseen hazards and control measures

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## JHA Process

- Step 1 – Watch the work being done
- Step 2 – Break the job down into steps
- Step 3 – Describe the hazards in each step
- Step 4 – Set control measures for each hazard
- Step 5 – Review with other workers
- Step 6 – Update (annually, as job changes, etc.)

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**Hazard**

**RISK**

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**Exposure**



**Risk=**  
**Probability for injury/illness**  
**Degree of injury/illness**




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## Break it down...

### Probability

- # of employees, hazards, opportunities
- Duration
- Proximity
- Complexity
- Workloads - distress

### Severity

- Reasonable
- Realistic
- Minor or life/death

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**But....remember KISS!**

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# Hierarchy of hazard control

Most effective	Elimination	Physically remove the hazard.
	Substitution	Replace the hazard.
	Engineering controls	Isolate people from the hazard.
	Administrative controls	Change the way people work.
Least effective	PPE	Provide a barrier with personal protective equipment.

## Exercise

- Develop JHA for mowing lawn

### Job Hazard Analysis

Job: Mowing the lawn Date of Analysis: August 31, 2017

Conducted By: Wally Weedeater

Brief description of task and environment: Use XYZ lawn mower to cut lawn at 1234 Great View Drive

Sequence of Basic Job Steps	Potential Hazards	PPE/Controls	Needed Changes
1. Remove lawn mower from garage and push it into the driveway.	1. Back/shoulder injuries from lifting and pushing. 2. Tripping over old hose, pots, and rakes.	1. Use proper body mechanics (keep load close, don't twist). Push from the body core.	Create and maintain a clear storage area

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2. Inspect mower to see that guards are in place and <b>deadman</b> switch is working.	1. Back/shoulder injuries from turning mower. 2. Amputations from rotating blades.	1. Keep load close to body, bend knees. 2. Keep hands away from blades.	

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3. Put fuel in mower using a gas can equipped with long spout (or funnel).	1. Exposure to gas vapors 2. Skin contact with gas 3. Fire and burns	1. Wear gloves and safety glasses 2. Ensure there are no ignition sources in the vicinity	Purchase an electric mower

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4. Walk yard to remove debris and identify holes	1. Slips and falls	1. Boots with non-slip soles 2. Use small steps to avoid slipping	Build retaining wall and remove slope

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5. Mow lawn using horizontal motion across hill. Pivot at end of run and reverse across hill.	1. Slip on hill 2. Amputation when mower runs over foot 3. Flying debris 4. Noise 5. UV exposure from sunlight	1. Boots, safety glasses, and hearing protection. 2. Use small steps to prevent slipping. 3. Wear long sleeves and sunscreen.	

Comments: (frequency/duration info, etc.): Job is done once per week and takes 2 hours.

## Using JHA with new hires

- Complete JHA while observing task
- Review with new worker
  - Have them rewrite it (from memory!)
  - Verifies understanding and training effectiveness

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## JHA with other employees

- Combine
  - Procedures
  - PPE assessment
  - Ergo assessments
- Include in formal observation programs
- Continual improvement

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## Other things to consider

- Is the job performed the same by all?
- Does it change with different products?
- Is it easy to read and understand?

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## Where to begin

- What is the most hazardous job and why?
- Where are injuries occurring?
- Who should be involved in developing the JHA for this job?
- What form should you use?
- Routine vs. non-routine work?

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## JHA Implementation

- Management support
- Safety committee and supervisor support
- Prioritize jobs
- Get employees and supervisors involved
- Video tape the job
- Feedback from other workers doing job

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## JHA Implementation

- Have all current employees review
- Training tool for new employees
- Update as job changes, hazards change, or if there is an injury
- Use JHA to create safe operating procedures
- Establish a goal for completing JHAs

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## JHA doesn't stand alone

- Inspections/observations
- Audits (3<sup>rd</sup> party)
- Training/reporting/tracking
- Safety committee
- Enforcement/accountability
- Incentives?

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## Summary

- JHA most effective way to identify hazards for each step in the task
- Add redundant controls if PPE is the only control
- Review and Update JHAs
- Involve employees to increase awareness

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**We are what we repeatedly do.  
Excellence, then, is not an act,  
but a habit. - Aristotle**

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## **Questions to think about**

- How can you move through the process?
- Reaction from employer? From employees?
- Problems/barriers
- Culture struggle?

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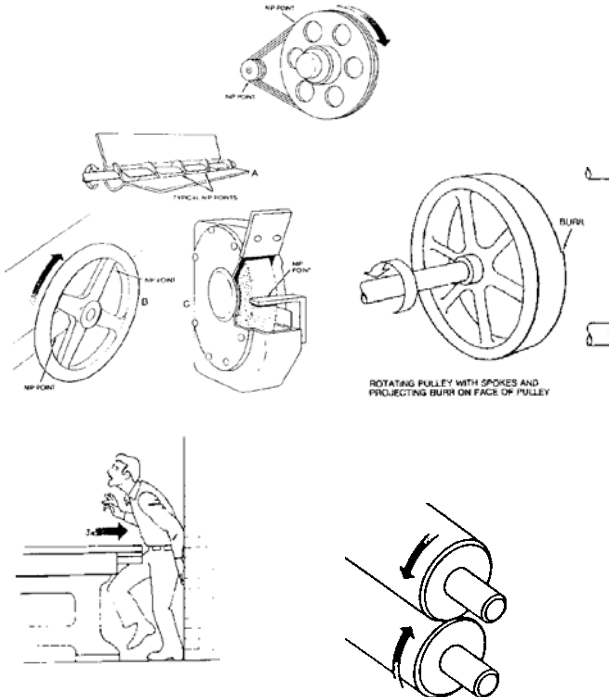
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## Hazard Identification Form

**Job/Task:** \_\_\_\_\_ **Assessment conducted by:** \_\_\_\_\_

**Dept/Work area(s):** \_\_\_\_\_ **Reviewed by:** \_\_\_\_\_

<b>Falls from elevation?</b>	<b>Slips/Trips/Falls on Same Surface?</b>	<b>Musculoskeletal Disorders</b>
<u>Does the task require the employee to:</u> <input type="checkbox"/> Use a ladder? <input type="checkbox"/> Use or work on a raised platform? <input type="checkbox"/> Work on a mezzanine? <input type="checkbox"/> Work on a scissor or boom lift? <input type="checkbox"/> Work from forklift work platform? <input type="checkbox"/> Work on a loading dock? <input type="checkbox"/> Work on top of equipment? <input type="checkbox"/> Use stairs? <input type="checkbox"/> Other?	<u>Is the work done in an area with:</u> <input type="checkbox"/> Congestion? <input type="checkbox"/> Uneven walking surfaces? <input type="checkbox"/> Material on floor? <input type="checkbox"/> Cords/hoses on floor? <input type="checkbox"/> Potential for spills? <input type="checkbox"/> Potential for ice and/or snow? <input type="checkbox"/> Poor lighting? <input type="checkbox"/> Other?	USE Humantech BRIEF to identify: <input type="checkbox"/> Forceful Exertions <input type="checkbox"/> Awkward Postures <input type="checkbox"/> Static Postures <input type="checkbox"/> Repetitive Motions <input type="checkbox"/> Contact Pressure
<b>Chemicals/Hazardous Materials with Potential for Inhalation? (Review the MSDS)</b>	<b>Chemicals/Hazardous Materials with Potential Skin Contact? (Review MSDS)</b>	<b>Non-Ionizing and Ionizing Radiation?</b>
<u>Is there a potential inhalation hazard from:</u> <input type="checkbox"/> Paints? <input type="checkbox"/> Metal fumes & gases from welding/soldering? <input type="checkbox"/> Dusts from grinding/sanding/blasting? <input type="checkbox"/> Dusts/mists/vapors while filling machines, tanks, reservoirs etc.? <input type="checkbox"/> Cleaning chemicals? <input type="checkbox"/> Solvents or other volatile chemicals? <input type="checkbox"/> Dip tank operations? <input type="checkbox"/> Compressed gases? <input type="checkbox"/> Products of combustion and thermal degradation from (heating plastics or other material)? <input type="checkbox"/> Oxygen deficient atmosphere (confined space)? <input type="checkbox"/> Other chemical hazards?	<u>Work activities with the potential for skin or eye contact (Can damage skin/eyes by irritation, burn, sensitization or can be toxic when absorbed through skin or ingested):</u> <input type="checkbox"/> Corrosives (acids and caustics)? <input type="checkbox"/> Irritants/Sensitizers? <input type="checkbox"/> Solvents? <input type="checkbox"/> Lead wire or other metal contamination? <input type="checkbox"/> Cryogenics (e.g. liquid nitrogen or oxygen)? <input type="checkbox"/> Machining fluids? <input type="checkbox"/> Other?  <input type="checkbox"/> Is there potential contact with bodily fluids?	<u>Work activities, such as:</u> <input type="checkbox"/> Continuous Noise? <input type="checkbox"/> Impact Noise? <input type="checkbox"/> Vibration? <input type="checkbox"/> Heat Stress (Hot Environment)? <input type="checkbox"/> Cold Stress (Cold Environment)? <input type="checkbox"/> Lasers? <input type="checkbox"/> Ultraviolet or infrared light? <input type="checkbox"/> Radiofrequency/microwave radiation? <input type="checkbox"/> X-Rays? <input type="checkbox"/> Other?
<b>Electrical Hazards?</b>	<b>Hot Work?</b>	<b>Hazards from Pressure?</b>
<u>Could employee be exposed to:</u> <input type="checkbox"/> Exposed electrical wiring or components? <input type="checkbox"/> Arc flash? <input type="checkbox"/> Other electrical hazards?	<u>Does the work create or is the work done in proximity to:</u> <input type="checkbox"/> Flame and/or spark? <input type="checkbox"/> Hot surfaces? <input type="checkbox"/> Flammable or combustible chemicals? <input type="checkbox"/> Other conditions that could create a fire?	<u>Is the work done in proximity to or require the use of:</u> <input type="checkbox"/> Hydraulic pressure? <input type="checkbox"/> Pneumatic pressure? <input type="checkbox"/> Water pressure?

Mechanical Hazards?	Mechanical Hazards (examples)	Vehicles?
<p><u>Does the work require using equipment with moving parts:</u></p> <p><input type="checkbox"/> Does equipment cut, bend, shear, punch?</p> <p><input type="checkbox"/> Is there access to the point of operation? (e.g. saws, press brake, shear, punch press)</p> <p><input type="checkbox"/> Are there rotating shafts/shaft projections?</p> <p><input type="checkbox"/> Are there rotating chucks, drill bits?</p> <p><input type="checkbox"/> Are there reciprocating or transverse motions?</p> <p><input type="checkbox"/> Nip points at fly-wheels, augers?</p> <p><input type="checkbox"/> Nip points at in-running rollers?</p> <p><input type="checkbox"/> Nip points at belts, pulleys, chains, gears (mechanical power-transmission)?</p> <p><input type="checkbox"/> Are robotics present?</p> <p>Could employee be struck or cut by:</p> <p><input type="checkbox"/> Saw blades?</p> <p><input type="checkbox"/> Abrasive wheels?</p> <p><input type="checkbox"/> Hand tools?</p> <p><input type="checkbox"/> Knives?</p> <p><input type="checkbox"/> Other items or tools?</p>	<p>Review OR-OSHA guarding publication at:  <a href="http://www.orosha.org/pdf/pubs/2980.pdf">www.orosha.org/pdf/pubs/2980.pdf</a> and/or            OSHA e-tool at:  <a href="http://www.osha.gov/SLTC/etools/machineguarding/index/html">www.osha.gov/SLTC/etools/machineguarding/index/html</a></p>  <p>The diagrams illustrate various mechanical hazards:           <ul style="list-style-type: none"> <li>A top diagram shows a pulley system with labels for 'NIP POINT' and 'NIP POINT'.</li> <li>A middle-left diagram shows a rotating pulley with spokes and a projecting burr on its face, labeled 'ROTATING PULLEY WITH SPOKES AND PROJECTING BURR ON FACE OF PULLEY'.</li> <li>A middle-right diagram shows a rotating pulley with spokes and a projecting burr on its face, labeled 'ROTATING PULLEY WITH SPOKES AND PROJECTING BURR ON FACE OF PULLEY'.</li> <li>A bottom-left diagram shows a person standing near a machine with a rotating part, labeled 'NIP POINT'.</li> <li>A bottom-right diagram shows a rotating pulley with spokes and a projecting burr on its face, labeled 'ROTATING PULLEY WITH SPOKES AND PROJECTING BURR ON FACE OF PULLEY'.</li> </ul> </p>	<p><input type="checkbox"/> Does the work require use of a vehicle?</p> <p><input type="checkbox"/> Is there vehicle traffic in the area?</p>

Other Hazards and Observations:

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Comments: (frequency/duration info, etc.): Job is done once per week and takes 2 hours.

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Conducted By: \_\_\_\_\_

Brief description of task and environment: \_\_\_\_\_

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1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Comments: (frequency/duration info etc): (e.g., Job is done once per week and takes 2 hours)