



GET IN THE SAFETY ZONE

*Evaluating the
TOP 6 ERGONOMIC RISKS*

Our Presentation Will Begin Soon!





GET IN THE SAFETY ZONE

*Evaluating the
TOP 6 ERGONOMIC RISKS*

ICW Group Risk Management Services



TODAY'S PRESENTER

*Tom Jolliff, ARM, CEES, ALCM
Sr. Risk Management Consultant
ICW Group Risk Management Services*



TODAY'S TOPICS

Impacts & Benefits

6 Tips to Identify Risks

The "Safety Zone " Approach

Practical Solutions!

Helpful Online Resources

Cumulative Trauma Disorders Defined

Cumulative trauma disorders (CTDs) are also known as:

- ✓ Repetitive strain injuries
- ✓ Repetitive motion disorders (RMDs)
- ✓ Overuse syndrome and work-related musculoskeletal disorders.

TOPICS

Impacts & Benefits

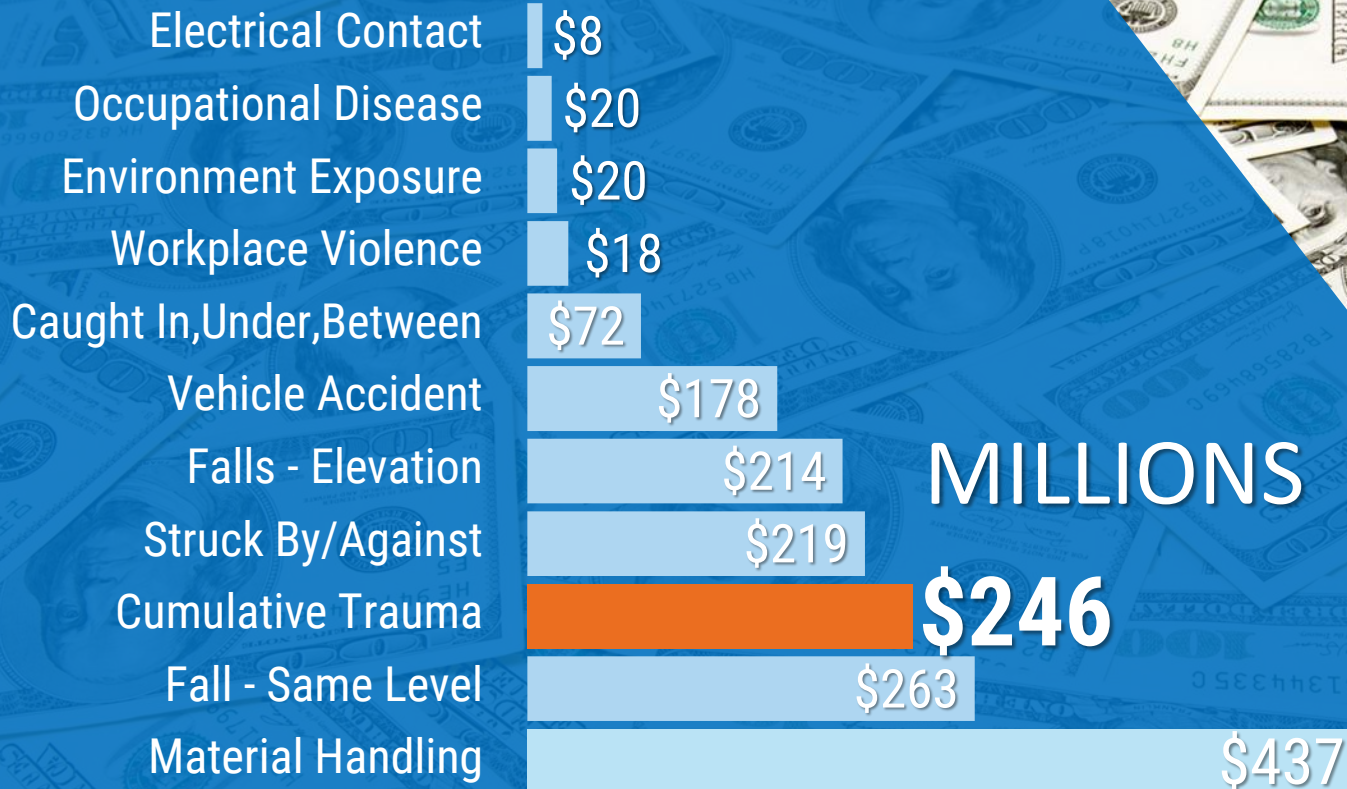
6 Tips to Identify Risks

The “Safety Zone “ Approach

Practical Solutions!

Helpful Online Resources

FINANCIAL IMPACT



ICW customers.... 5-Year Impact



\$246M in claims

15% of all claim costs

9% of claim count (9,000 claims)

27K average cost per claim

FINANCIAL IMPACT - COUNTRY



- Direct costs: **\$15 - \$20B** yearly
- Work comp cost: **\$1** of every **\$3** attributed to Cumulative Trauma

Source: Institute of Medicine

WORKER IMPACT - INJURIES



- Carpal tunnel syndrome
- Tendinitis
- Rotator cuff injuries (shoulder)
- Epicondylitis (elbow)
- Trigger finger
- Muscle and low back strains

Benefits of an Ergonomics Program



- Enhances safety culture
- Improves employee engagement
- Reduces injury costs
- Improves productivity and product quality

TOPICS

Benefits & Impacts

6 Tips to Identify Risks

The “Safety Zone” Approach

Practical Solutions!

Helpful Online Resources



ICWGROUP
Insurance Companies

ERGONOMICS

Make sure you don't fall out of the "Safety Zone".
Watch for the following to prevent injuries.

- Awkward Postures**
Muscles operate less efficiently and more force is needed to complete tasks.
Sit up straight, move items into reach, correct your stance.
- High Hand Force**
Pushing and gripping heavy items risks serious hand, wrist, elbow and shoulder injuries.
Increase your leverage, use light-weight & suspended tools.
- Repetitive Motion**
Repeating motions with little or no variation can cause serious injury over time.
Rotate jobs, change posture, reposition work, switch it up.
- Repeated Impact**
Frequently using hands or knees as a hammer results in bruising, skin infections and other symptoms.
Use correct tools, pads, and learn how to operate properly.
- Awkward Lifting**
Lifting injuries aren't just back injuries – shoulder, elbow, hand and wrist injuries are common.
Before lifting, reduce reach, weight & use mechanical aids.
- High Arm Vibration**
Frequent exposure to tools with high vibration levels can lead to permanent problems.
Pad tool handles, fit grip, keep it light and maintain equipment.

Learn more at:
icwgroup.com/safety

IT'S YOUR BODY AT WORK
Keep it in the Zone!

6 Tips to Stay in the Safety Zone!

Watch out for risk factors:

1. Awkward Postures
2. High Hand Force
3. Highly Repetitive Motion
4. Repeated Impact
5. Heavy Awkward Lifting
6. High Hand-Arm Vibration



Stay in the Safety Zone!

Focus on the risk exposures

- Observe posture & movements
- Identify exposures
- Recommend practical solutions
- Employees go home safe!



The Safety Zone Observation Form

Ergonomics Evaluation Tool

- 14-point guide
- Focuses on six risk exposures
- Photo for each risk exposure
- Good documentation tool

Based on Washington State model

ERGONOMICS EVALUATION
14 point observation form to help employees stay in the "Safety Zone"

Company: _____ Date: _____
Department: _____
Employees: _____
Safety consultant: _____
Company contact: _____

Observed frequent postures and movements that may cause injuries	Check if Yes	Comments and observations	Helpful ideas to reduce and eliminate injury risks
HIGH HAND FORCE			
5 Pushing unsupported box force per hand for 2 or more hours daily. Examples: carrying items without handles, boxes.	<input type="checkbox"/>		
6 Gripping unsupported objects or 15 lbs force per hand for 2 or more hours daily. Examples: holding tools used to assemble parts.	<input type="checkbox"/>		
HIGHLY REPETITIVE MOTION			
7 Motion with neck, shoulders, elbows, wrists, hands, with little variation every few seconds, 2 or more hours daily. Example: assembly.	<input type="checkbox"/>		
8 Intense typing 4 or more hours daily.	<input type="checkbox"/>		
REPEATED IMPACT			
9 Hammering with hand (heel) base of palm or or 2 hours daily. Examples: installing parts, using kneejack and assembly work.	<input type="checkbox"/>		
AWKWARD POSTURE			
1 Hands above head, elbows above shoulders 2 or more hours daily. Examples: lifting items, moving materials in awkward positions.	<input type="checkbox"/>		
2 Neck or Back bent >30° into support or ability to vary posture 2 or more hours daily. Examples: working at desk, assembly bench, welding.	<input type="checkbox"/>		
3 Squatting 2 or more hours daily. Examples: placing items on shelves, bending in catcher's position to sort materials.	<input type="checkbox"/>		
4 Working in static kneeling position 2 or more hours daily. Examples: installing carpet, fixing outlets.	<input type="checkbox"/>		

icwgroup.com/safety

TOPICS

Benefits & Impacts

6 Tips to Identify Risks

The “Safety Zone” Approach

Practical Solutions!

Helpful Online Resources



icwGROUP
Insurance Companies

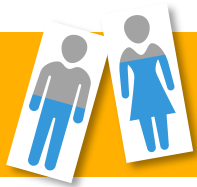
ERGONOMICS

Make sure you don't fall out of the "Safety Zone".
Watch for the following to prevent injuries.

- Awkward Postures**
Muscles operate less efficiently and more force is needed to complete tasks.
Sit up straight, move items into reach, correct your stance.
- High Hand Force**
Pinching and gripping heavy items risks serious hand, wrist, elbow and shoulder injuries.
Increase your leverage, use light-weight & suspended tools.
- Repetitive Motion**
Repeating motions with little or no variation can cause serious injury over time.
Rotate jobs, change posture, reposition work, switch it up.
- Repeated Impact**
Frequently using hands or knees as a hammer results in bruises, skin infections and other symptoms.
Use correct tools, pads, and learn how to operate properly.
- Awkward Lifting**
Lifting injuries aren't just back injuries – shoulder, elbow, hand and wrist injuries are common.
Before lifting, reduce reach, weight & use mechanical aids.
- High Arm Vibration**
Frequent exposure to tools with high vibration levels can lead to permanent problems.
Pad tool handles, fit grip. Keep it light and maintain equipment.

Learn more at:
icwgroup.com/safety

IT'S YOUR BODY AT WORK
Keep it in the Zone!

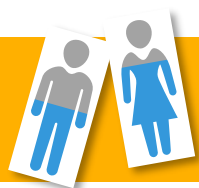


Safety Zone Warning!

1) Awkward Postures

- Work performed with:
 - Hands above head
 - Elbows above shoulders
 - Over 2 hours daily

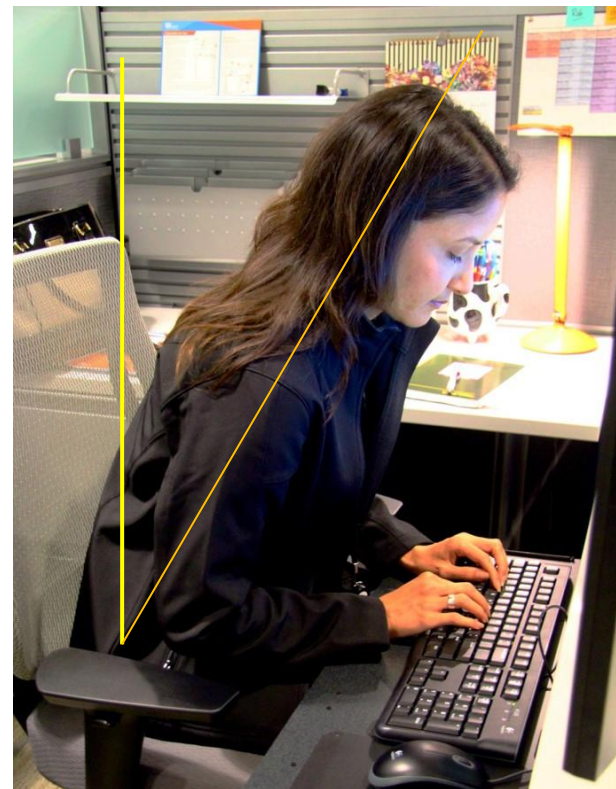




Safety Zone Warning!

Awkward Postures

- Neck/head in forward posture
- No lumbar support
- Static posture
 - Over 2 hours daily
 - Ears in front of shoulders
 - Shoulders in front of hips
 - Shoulders in front of toes



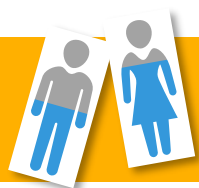


Safety Zone Warning!

Awkward Postures

- Jobs requiring squatting over 2 hours daily
- Static kneeling over 2 hours daily

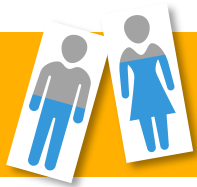




Safety Zone Tip #1

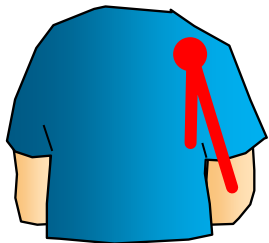
Reduce risk of awkward postures

- Office: Eliminate forward head/neck posture.
- Move frequently used desk items within reach zone (17-24 inches)
- Use wireless headsets for phones
- Align center of torso with computer monitors

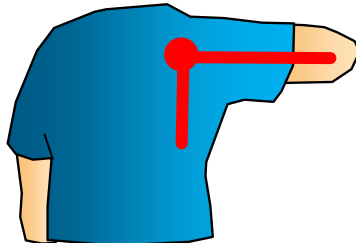


Safety Zone Tip #1

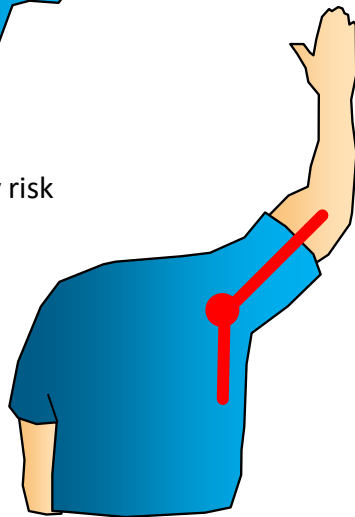
Reduce risk of awkward postures



Good!

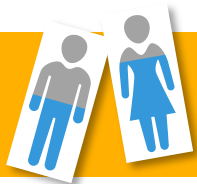


Approaching injury risk



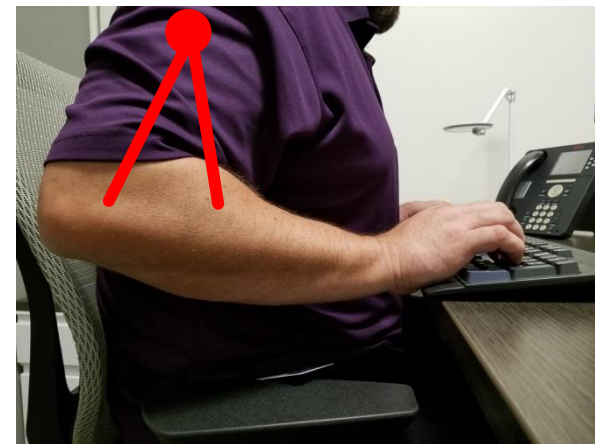
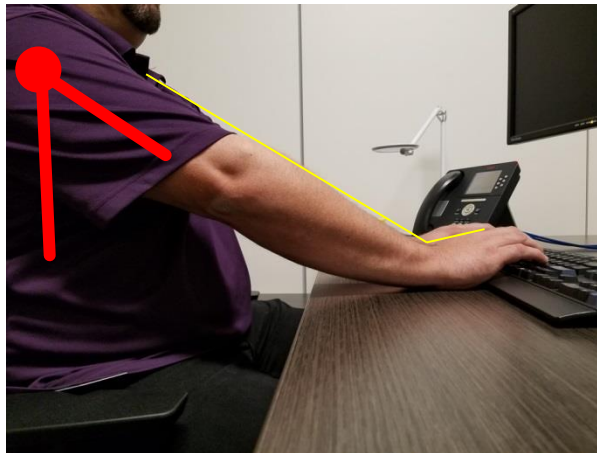
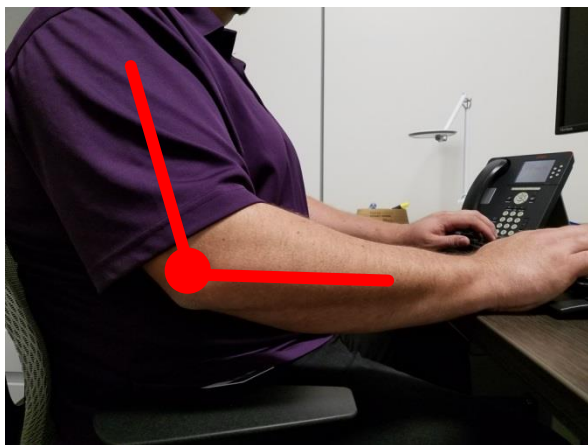
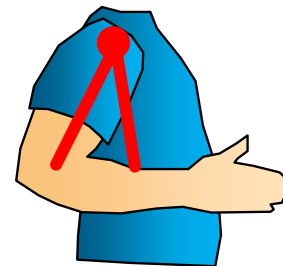
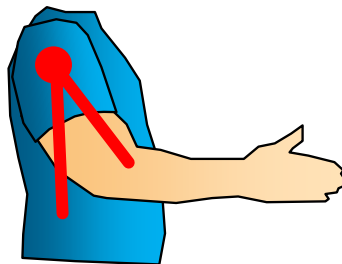
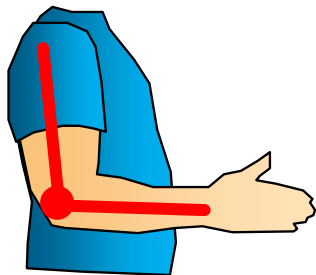
Lifting over head increases risk of shoulder injury.





Safety Zone Tip #1

Reduce the risk of awkward postures





Safety Zone Warning!

2) High Hand Force

- Pinching
 - Unsupported object, 2 pounds or more per hand
 - 2 hours or more daily

- Gripping
 - Unsupported objects, 10 pounds or more, per hand
 - 2 hours and more daily





Safety Zone Tip #2

Reducing High Hand Force

- Use light-weight tools
- Improve coupling
- Increase leverage
- Suspend tool from overhead
- Automate process

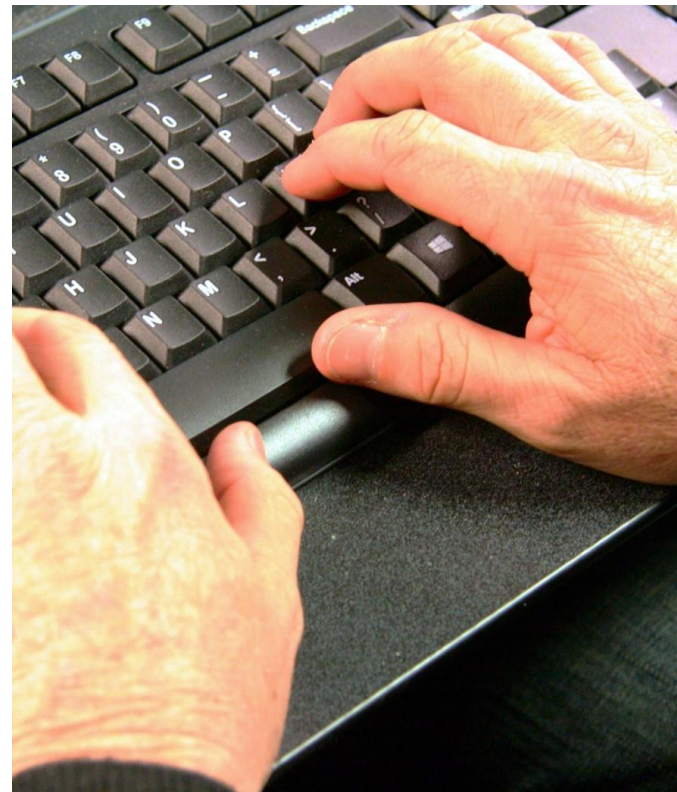




Safety Zone Warning!

3) Highly Repetitive Motion

- Repeating same motion with the neck, shoulders, elbows, wrists, or hands
- Occurs every few seconds, with little or no variation
- Intensive keying (4 + hours daily)
- Wrist posture





Safety Zone Tip #3

Reduce & Break Up Repetition

- Rotate jobs every 2 hours
- Change body posture
- Raise work to prevent bending
- Provide options to change up body position

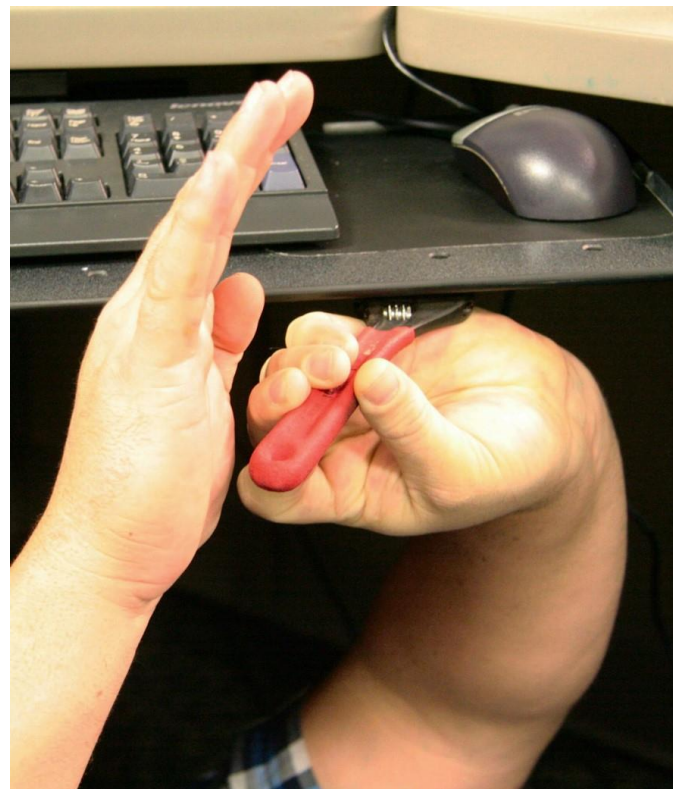




Safety Zone Warning!

4) Repeated Impact

- Using hand (heel/base of palm) or knee as hammer to strike objects
- 10 times or more per hour, 2 hours or more daily





Safety Zone Tip #4

Reducing Impact Injuries

- Purchase correct tools
- Observe
- Educate
- Correct





Safety Zone Warning!

5) Awkward Heavy Lifting

- Lifting 75 pounds or more, 1 x daily.
- Lifting 55 pounds or more, 10 x daily.





Safety Zone Tip #5



Avoid Injury from Awkward Lifting

- Reduce weight lifted
- Use smaller storage containers
- Store heavier items between waist and chest height
- Use mechanical aids
- Keep loads close to body



Safety Zone Warning!

6) Moderate-High Hand-Arm Vibration

- Using high-vibration tools 30 minutes or more daily
 - Impact wrenches
 - Jack hammers
 - Drills
 - Chain saws
 - Percussive tools





Safety Zone Tip #6

Reduce Vibration Impact Injuries

- Pad tool handles
- Anti-vibration gloves
- Select tools fitting workers' grip
- Maintain equipment
- Low-vibration tools



TOPICS

Benefits & Impacts

6 Tips to Identify Risks

The “Safety Zone” Approach

Practical Solutions!

Helpful Online Resources

icwGROUP
Insurance Companies

ERGONOMICS

Make sure you don't fall out of the “Safety Zone”.
Watch for the following to prevent injuries.



Awkward Postures
Muscles operate less efficiently and more force is needed to complete tasks.
Sit up straight, move items into reach, correct your stance.



High Hand Force
Pinching and gripping heavy items risks serious hand, wrist, elbow and shoulder injuries.
Increase your leverage, use light-weight & suspended tools.



Repetitive Motion
Repeating motions with little or no variation can cause serious injury over time.
Rotate jobs, change posture, reposition work, switch it up.



Repeated Impact
Frequently using hands or knees as a hammer results in bruising, skin infections and other symptoms.
Use correct tools, pads, and learn how to operate properly.



Awkward Lifting
Lifting injuries aren't just back injuries – shoulder, elbow, hand and wrist injuries are common.
Before lifting, reduce reach, weight & use mechanical aids.



High Arm Vibration
Frequent exposure to tools with high vibration levels can lead to permanent problems.
Pad tool handles, fit grip, keep it light and maintain equipment.

Learn more at:
icwgroup.com/safety

IT'S YOUR BODY AT WORK
Keep it in the Zone!

icwGROUP
Insurance Companies

Solutions to Reduce Your Risk Exposure!

1. Correct awkward postures
2. Reduce high-hand force
3. Break up repetitive movements
4. Provide correct tools to reduce impact injuries
5. Avoid injury from awkward lifting
6. Reduce vibration impacts



Stay in the Safety Zone

- Observation
- Evaluation
- Education
- Solutions

icwGROUP Insurance Companies

HIGH HAND FORCE 14-point observation form to help employees stay in the "Safety Zone!"

Company: _____
Job: _____
Department: _____

Employees: _____ Date: _____
Safety consultant: _____

Observed frequent postures and movements that may cause injuries

5 Pinching unsupported objects or 2 lbs per hand or 4 lbs force per hand for 2 or more hours daily. Examples: carrying boxes without handles, blocks.

6 Gripping unsupported objects or 10 lbs force per hand for 2 or more hours daily. Examples: holding tools used to assemble parts.

HIGHLY REPETITIVE MOTION

7 Motion with neck, shoulders, elbows, wrists, hands, with little variation every few seconds, 2 plus hours daily. Example: assemblies.

8 Intense typing 4 or more hours daily.

REPEATED IMPACT

9 Hammering with hand (heel base of palm) or knee more than 10 times or 2 hours daily. Examples: installing parts, using knee-buck and assembly work.

icwgroup.com/safety

icwGROUP Insurance Companies

ERGONOMICS EVALUATION
14-point observation form to help employees stay in the "Safety Zone!"

Company: _____
Job: _____
Department: _____

Employees: _____ Date: _____
Safety consultant: _____

Observed frequent postures and movements that may cause injuries

AWKWARD POSTURE

1 Hands above head, elbows above shoulders 2 or more hours daily. Examples: lifting items, moving materials in awkward positions.

2 Neck or back bent >30° (no support or ability to vary posture), 2 or more hours daily. Examples: working at desk, assembly bench, welding.

3 Squatting 2 or more hours daily. Examples: placing items on shelves, bending in catcher position to sort materials.

4 Working in static kneeling position more hours daily. Examples: installing carpet, fixing tile.

ERGONOMICS
Make sure you don't fall out of the "Safety Zone". Watch for the following to prevent injuries.

Awkward Postures
 Must not operate less efficiently and more force is needed to complete tasks. Sit or straight, move items into reach, correct your stance.

High Hand Force
 Pinches and gripping heavy items risks serious hand, wrist, elbow and shoulder injuries. Increase your leverage, use light-weight & suspended tools.

Repetitive Motion
 Repeating motions with little or no variation can cause serious injury over time. Rotate jobs, change posture, repetition work, switch it up.

Repeated Impact
 Frequently using hands or knees as a hammer results in bruising, skin infections and other symptoms. Use correct tools, pads, and learn how to operate properly.

Awkward Lifting
 Lifting injuries aren't just back injuries - shoulder, elbow, hand and wrist injuries are common. Before lifting, reduce reach, weight & use mechanical aids.

High Arm Vibration
 Frequent exposure to tools with high vibration levels can lead to permanent problems. Pad tool handles, fit grip, keep it light and maintain equipment.

Learn more at:
icwgroup.com/safety

IT'S YOUR BODY AT WORK
Keep it in the Zone!

TOPICS

Benefits & Impacts

6 Tips to Identify Risks

The “Safety Zone “ Approach

Practical Solutions!

Helpful Online Resources

ICW Group Policyholder Website!



icwgroup.com/safety

- Safety and Risk Management area!
- Safety Webinars
- Get in the Safety Zone, Solving Ergonomic Risks





QUESTIONS?

riskmanagement@icwgroup.com





THANK YOU!

icwgroup.com/safety

