



# Ergonomics & Injury Prevention

**WORKSTRATEGIES**  
*Keeping America on the Job!*

POWERED BY THE  
SELECT MEDICAL OUTPATIENT FAMILY OF BRANDS



©SelectMark 2017

**WORKSTRATEGIES**  
*Keeping America on the Job!*

## Learning Objectives

**Upon completion of this course, the participant will understand:**

- The concept of injury management vs. injury prevention
- The continuum of injury management and injury prevention services
- The value of injury management



## Industrial Services Continuum

- Injury Management



- Injury Prevention



EXCLUSIVELY PROVIDED BY:



## Injury Management Services

- Return to Work Program
  - Acute and Sub Acute Injury Management
  - Work Conditioning/Work Hardening
  - Functional Capacity Evaluation
  - Job Site Analysis
  - Transitional work programs
- Focus on early intervention, functional restoration and RTW.

EXCLUSIVELY PROVIDED BY:



## Injury Prevention

- Stay at Work Services
  - Educational Programs
  - Post Offer Testing
  - Ergonomics

EXCLUSIVELY PROVIDED BY:



## What Are We Trying To Prevent?

- Accidents and trauma injuries
- Force exertion injuries
- Repetitive motion injuries
- Cumulative trauma disorders
- Over use injuries

EXCLUSIVELY PROVIDED BY:



## How Do These Injuries Occur?

- Stress is applied to the body
- Through participation in specific risk factors
- Without chance of recovery

EXCLUSIVELY PROVIDED BY:



## Bucket Analogy

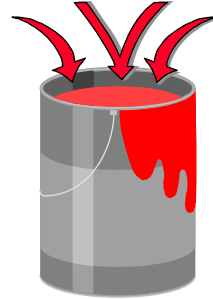


EXCLUSIVELY PROVIDED BY:



## Risk Factors

- Repetitive Motions
- Awkward Postures
- High Forces
- Inadequate Rest
- Contact Stress
- Environmental
  - Vibration
  - Cold
  - Stress



EXCLUSIVELY PROVIDED BY:



## Repetitive Motions



EXCLUSIVELY PROVIDED BY:



# Awkward Postures

**WORKSTRATEGIES**  
Keeping America on the Job!

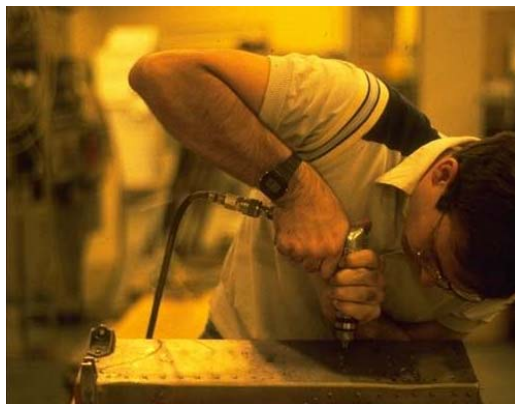


EXCLUSIVELY PROVIDED BY:



# Force

**WORKSTRATEGIES**  
Keeping America on the Job!



EXCLUSIVELY PROVIDED BY:



## Inadequate Rest: Every Activity Affects Injury Process

**WORKSTRATEGIES**  
Keeping America on the Job!



EXCLUSIVELY PROVIDED BY:



## Contact Stress

**WORKSTRATEGIES**  
Keeping America on the Job!

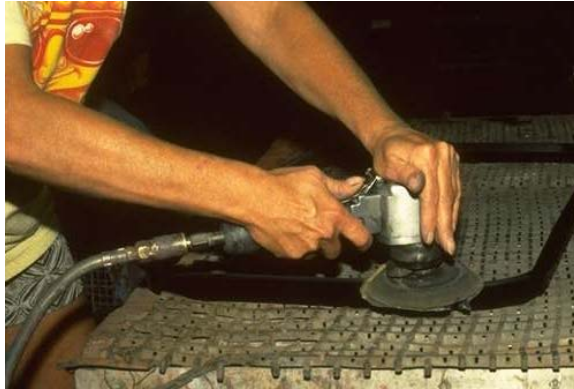
- ,



EXCLUSIVELY PROVIDED BY:



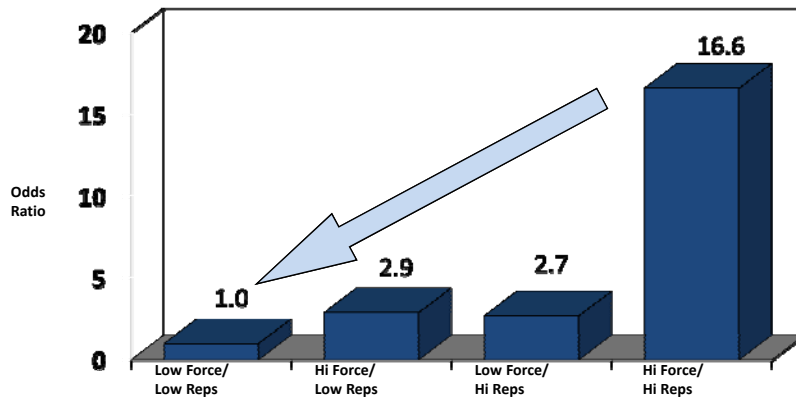
## Environment - Vibration



EXCLUSIVELY PROVIDED BY:



## Wrist CTDs - Reps & Force



Silverstein 1985

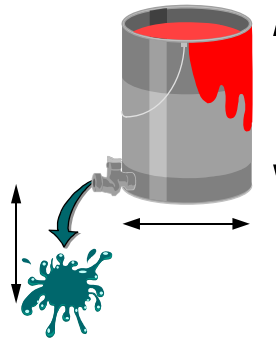
EXCLUSIVELY PROVIDED BY:





## Personal Factors

- Age
- Gender
- Height/Weight Ratio
- Diabetes
- Thyroid Disease
- Hormonal Status



EXCLUSIVELY PROVIDED BY:



## Ergonomic Principles

- Start with Job Analysis: on-site evaluation of risk factors through observation of work processes and employee work behaviors
- Educational programs and Post Offer Testing programs also start with Job Analysis.

EXCLUSIVELY PROVIDED BY:



## 1. Work in Neutral Postures

- Neck Straight
- Shoulders Relaxed
- Elbows at your side
- Wrists Straight
- Three Curves in the Back



EXCLUSIVELY PROVIDED BY:



## Neutral Postures – Before & After



EXCLUSIVELY PROVIDED BY:



## 2. Reduce Excessive Force



EXCLUSIVELY PROVIDED BY:



## 3. Reduce Repetitions – Before & After



EXCLUSIVELY PROVIDED BY:



## 4. Keep Everything within Easy Reach



EXCLUSIVELY PROVIDED BY:



## 5. Work at Proper Heights



EXCLUSIVELY PROVIDED BY:



## 6. Minimize Fatigue & Static Load



EXCLUSIVELY PROVIDED BY:



## 7. Minimize Pressure Points



EXCLUSIVELY PROVIDED BY:



## 8. Provide Clearance



EXCLUSIVELY PROVIDED BY:



## 9. Move, Exercise, Stretch

- No one best posture
- Alternate sitting and standing
- Compensate for sustained postures



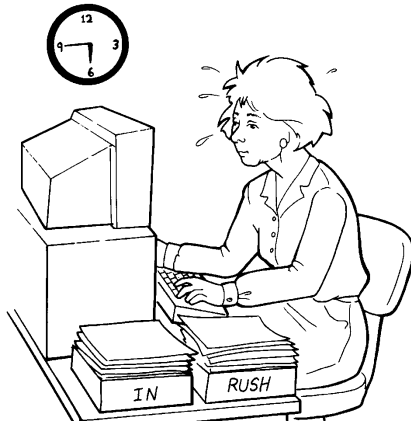
EXCLUSIVELY PROVIDED BY:





## 10. Maintain a Comfortable Environment

**WORKSTRATEGIES**  
Keeping America on the Job!



- Lighting
- Temperature
- Vibration
- Noise
- Stress

EXCLUSIVELY PROVIDED BY:



## When To Recommend Ergo Eval

**WORKSTRATEGIES**  
Keeping America on the Job!

- Client with CTD, especially surgical case
- Recurrent injuries
- Method of injury – routine work activities & symptoms developed over time
- Multiple injuries from same area of company

EXCLUSIVELY PROVIDED BY:



## Ergonomic Interventions



- Large majority of ergonomics interventions are very low cost

EXCLUSIVELY PROVIDED BY:



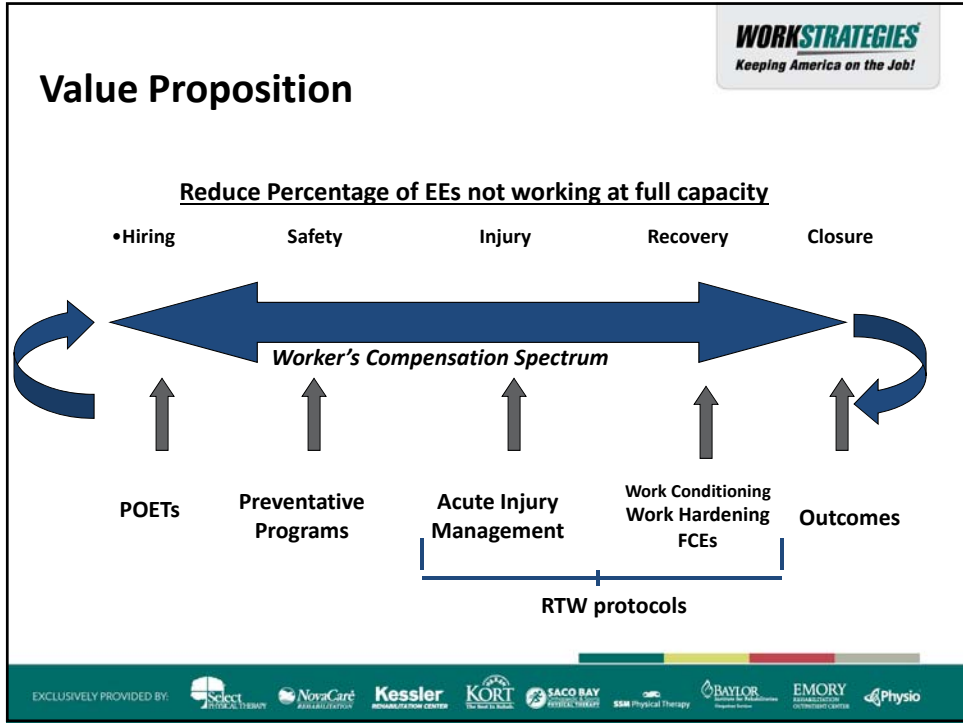
## Encouraging Investment in Safety

- Ergonomic costs are minimal compared to injury costs!

EXCLUSIVELY PROVIDED BY:







**Questions?**

**WORKSTRATEGIES**  
Keeping America on the Job!

POWERED BY THE  
SELECT MEDICAL OUTPATIENT FAMILY OF BRANDS



©SelectMark 2017



**Thank you!**



POWERED BY THE  
SELECT MEDICAL OUTPATIENT FAMILY OF BRANDS



©SelectMark 2017