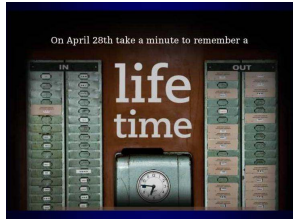


### Ergonomics Assess the Risk

MFL Occupational Health Centre  
Andrew Dolhy CPE  
Ergonomist




### MFL Occupational Health Centre

- is a community health centre funded by Winnipeg Regional Health Authority and donations.
- The Centre helps workers, employers, and joint health and safety committees to improve workplace health and safety conditions and eliminate hazards.
- Our services are available free of charge.

### Objectives

- Learn how to:
  - Spot the ergonomic hazard
  - Assess the Risk
  - Find a Safer Way
  - Everyday



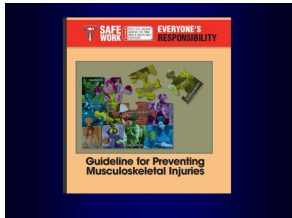
### New Health and Safety Regulation - Part 8

Musculoskeletal Injury Prevention Regulation  
www.safemanitoba.com

### New Health and Safety Regulations - MSI

Part 8

- Aware of or been advised of a risk
- Conduct an assessment
- Implement controls - 4 types
- Monitor effectiveness
- All workers informed of the risk, signs and symptoms, instruction on controls

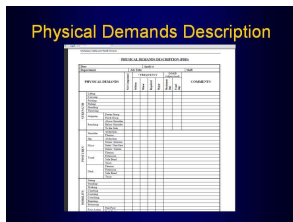


### Assess the Risk

- Conduct a Job Hazard Analysis
- Physical Demand Description
- Ergonomic Risk Factor Assessment

### Job Hazard Analysis

- Severity – minor, time off, permanent
- Probability – possible, probable
- Frequency – hour, day, week



### Checklists

- Does it apply
- Correct hazard level identified
- Reliable – different users
- Cover all hazards
- Based on what science

### What to Do?

Look at the job with many different assessment methods.

### Assessment Methods

- Injury Statistics
  - worker survey
- Standards and Guidelines
  - CSA, ISO, engineering textbooks,
- Technical Assessment
  - Biomechanical models, EMG, quantitative methods
- Worker involvement
  - communication, survey tools
- H&S C checklists
  - WSH checklists
- Production and Quality
  - Also turnover, absenteeism,



### Manitoba Labour Workplace Safety and Health Ergonomic Checklists

- Checklists for the:
  - Upper Extremity and
  - Lower Extremity and
  - Manual Material Handling
- Risk Factor Present - Duration - Score
- Add the scores

### Ergonomic Risk Factor Checklist

- A list of job factors known to increase the probability of developing a musculoskeletal injury
- Used to assess jobs for ergonomic hazards
- Quick method of identifying most obvious risk factors

### Rules for Using the Checklist

- If you are not sure if the risk factor is present or not, indicate YES.
- If you are unsure how long (how often) a worker is exposed to a risk factor, always choose the higher level of exposure.

### Scoring

- If a score > 7 is a hazardous task
- 8-10 - Use information gathered from Analysis of Records, Worker Consultation, and Direct Observation
- >10 most likely have a higher risk of injury

### Capacitor Inspection

- Insert ergo guideline checklist

### Manual Material Handling Checklist

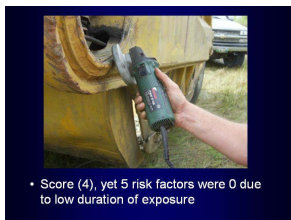
- Insert ergo guideline checklist


### Lessons Learned

- 1) Good quick look at a task
- 2) Provides a number
  - compare to others, before and after
- 3) Incorporates a lot of good principles
- 4) Score has some validity if it applies to your task

### Disadvantages

- Does it apply
- Correct hazard level identified
- Reliable – different users
- Cover all hazards
- Based on what science






- Score (4) - now 3, \$23
- Simple solutions = better health and efficiency




- Score (8), posture and duration




- Score (8) - now 5, \$46
- Reduce stooping - reduce wasted motion




- Score (12), due to posture and weight



- Score (12) - now 2 - \$995
- Costs are relative - compared to alternatives and all applicable benefits




- Score (6), posture and duration



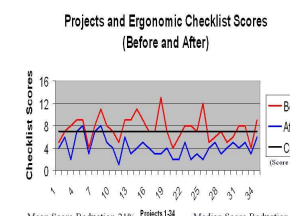
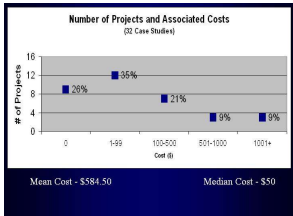
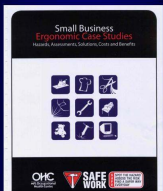
- Score (4) - now 3, \$0
- Knowing how the body works - leads to the best results



- Score (7), effort, poor posture and duration



- Score (7) - now 4, \$0 - task variability
- 0 dollar solutions can effectively reduce ergonomic risks

Small Business Ergonomics & Safety Checklist  
Hazard, Assessment, Controls, Cost and Benefits

OHC SAFE WORK

Download the Case Study Book

[www.mflohc.mb.ca](http://www.mflohc.mb.ca)