



# **RSI Awareness Day 2009**

## **Rehab and Early Intervention**

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# **AGENDA**

- **Scope of the Problem**
- **RSI Risk Factors and Signs**
- **Early Intervention**
- **Connection between Rehab and Employer**
- **Individual Case Studies**
- **Company Case Studies**
- **Direct Pay Treatment**
- **A system for ongoing management**

# Win-Win-Win Scenario

- Workers – reduction in RSI disability, ability to continue to earn a healthy living.
- Employers – maintain healthy and productive workforce, benefit financially WSIB direct and indirect costs.
- Health Care Providers – make a difference by intervening at an appropriate time.

# Scope of the Problem

- For Period 2002-2007 in Ontario
  - 2.1 million claims filed
  - 550,000 Lost Time Claims
  - 1.1 million No Lost Time Claims

Trend = small decrease in overall claim volumes

# Scope of the Problem

## Lost Time Claims 2002-2007

- 2002 – 39.2% Strain/Sprain
- 2007 – 49.1% Strain/Sprain

## Total Combined Strain/Sprain, Tendonitis, CTS, Bursitis, Rotator Cuff

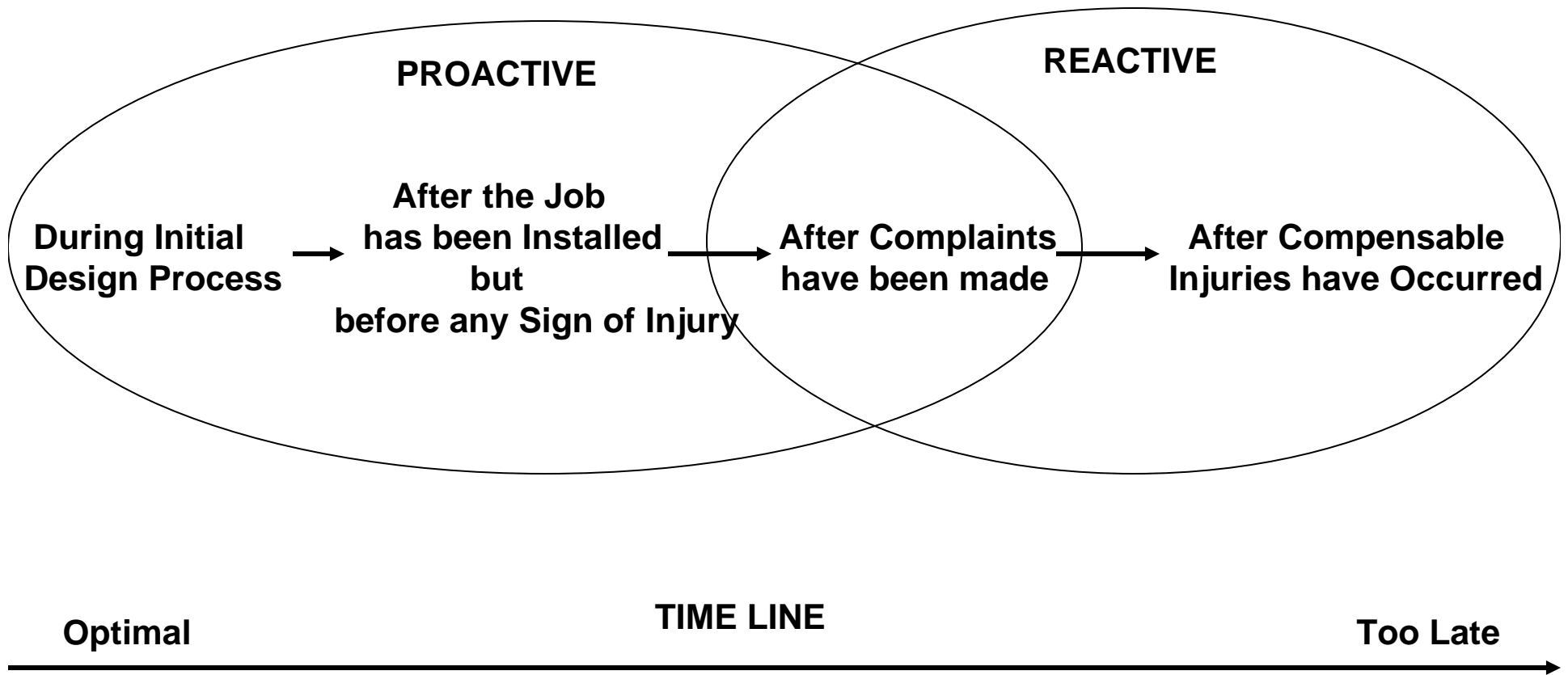
- 2002 – 44%
- 2007 – 54 %

# Scope of the Problem

In an effort to maintain a competitive advantage employers are getting 'lean' and continually asked to provide better quality with less manpower.

**More difficulty in placing injured workers due to combined job tasks and tighter job cycles.**

# When does most ergonomic intervention occur ?



# RSI Risk Factors

$$\text{Injury Risk} = \frac{\text{Tissue Load}}{\text{Tissue Tolerance}}$$

## Tissue Load

- force
- repetition
- posture
- recovery time

## Tissue Tolerance

- Stress / strain of a material
- acute injury
- cumulative trauma

# STAGES OF RSI

## Stage One

- Shows aches and tiredness during the working hours but usually subsides overnight and on days off work. There is usually no reduction in work performance. This condition may persist for weeks.

# Stage One

## Recognizable Signs in the Workplace

- Taking time to rest, stretch or “shake out” various body parts that are aching or fatigued
- Not reporting body discomfort, thinking it is “part of the job”!

# Stage Two

- Has symptoms that start early in the work-shift and do not subside overnight. Sleep may be disturbed and the capacity to perform the work reduced. This condition usually persists over months.

# Stage Two

## Recognizable Signs in the Workplace

- “worker” modification to work area
- incidence of splint and brace use
- Switching out of job with co-worker
- increased absenteeism

# Stage Three

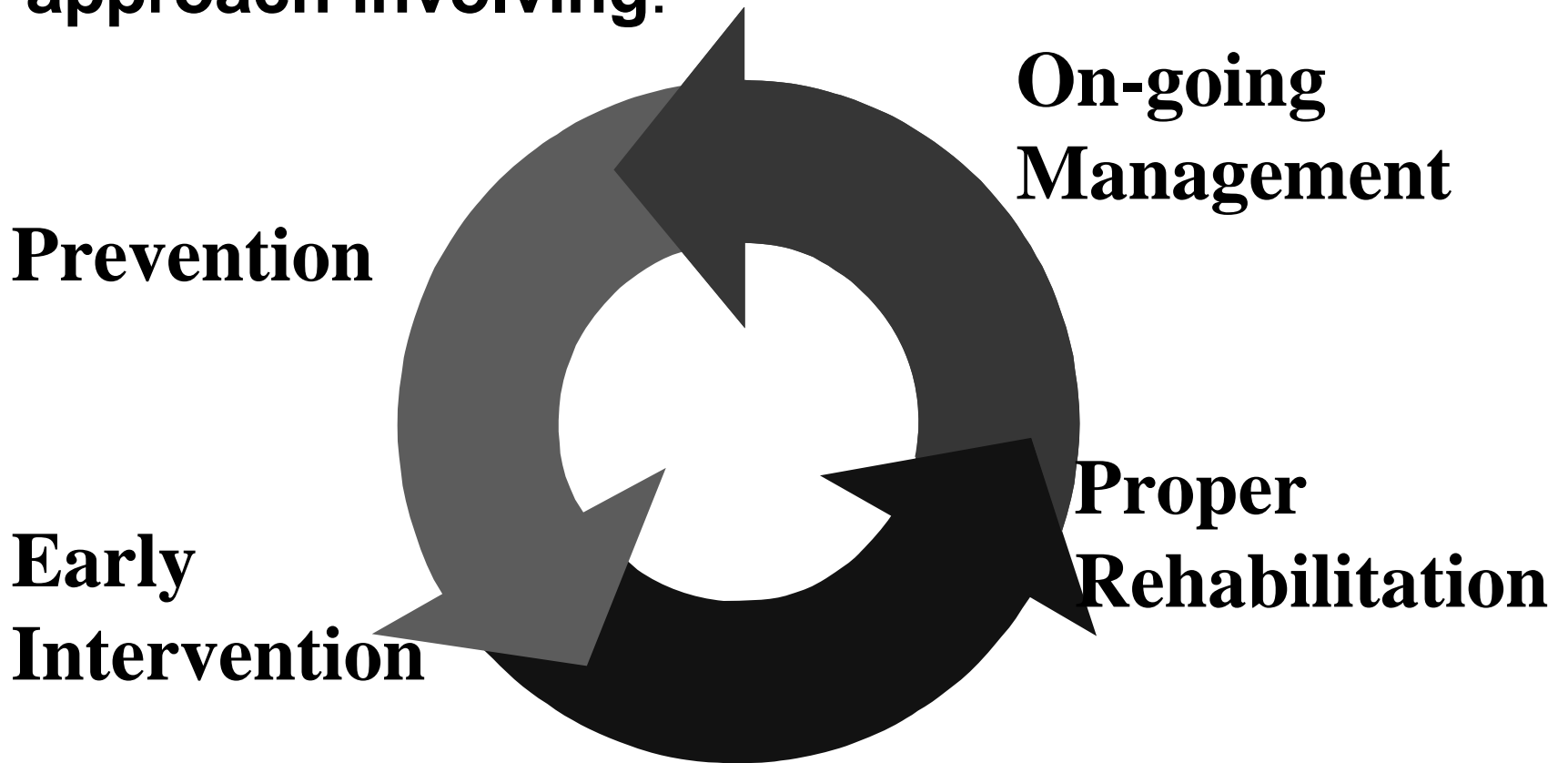
- Characterized by symptoms that persist at rest, pain that occurs with most movements and disturbed sleep. The person is unable to perform even simple activities and experiences difficulties in most tasks. Medical attention is necessary. This condition may last for months or longer.

# Stage Three

## Recognizable Signs in the Workplace

- increased incidence of splint and brace use
- TENS for work
- inability to perform work; pain is so severe, worker cannot perform even light duties
- worker off for extended periods seeking medical attention

**THE SOLUTION - Create a closed-loop whereby RSI is minimized through a multi-faceted approach involving:**



*Goal is to prevent – Reality is to manage*

# **Early Intervention - WSIB**

## **WSIB promotes this concept as Early and Safe Return to Work**

“promote getting the worker back to safe and productive work as soon as medically possible”

“research shows that the longer the worker is off, the less likelihood of returning to work”

“return to work is a shared responsibility primarily between the employer and the worker”

**LENGTH OF TIME OFF WORK vs. CHANCE  
OF RETURNING TO WORK**  
**(Watson Wyatt 2003)**



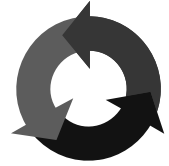
# WSIB Legislation

## Return to Work (Section 40)

The employer and employee shall cooperate in the early and safe return to work:

- Contacting the worker/employer as soon as possible after the injury and maintaining communication throughout recovery
- Attempting/participating in the provision of suitable employment that is available and consistent with the workers functional abilities
- Communication with WSIB
- Doing such other things as may be prescribed

# Early Intervention - Employer



- Front line supervisor/team leader approach and reporting
- Document preparation for potential medical visit
- Internal steps for temporary accommodation needs
- Management support and Leadership

# Early Intervention - Worker

- Workplace is made aware of situation
- Assists all workers that may be affected by similar work demands
- Possibility of minimal job change
- Less time needed for rehab
- Better quality of life at and away from work

# **Early Intervention – On site consultant**

- Instruction to avoid disability/rehab
- Review proper movement mechanics
- Provide stretches/exercises for home

## **Advantages**

- Minimizes job changes
- Avoid time needed for rehab intervention
- Activates job evaluation process

# Connecting Rehabilitation and Workplace

## Phase One

### Clinic

- Symptom Reduction – Heat, U.S, Stim, Ice
- Injury education
- Home/work stretches

### Workplace

- Accomodation within FA if necessary
- Technique and mechanics review
- Return to work plan

# **Phase Two**

## **Clinic**

- Muscular conditioning and strengthening
- Introduction to work simulation
- Report on measurables

## **Workplace**

- Intro to pre-injury job
- Increase duties or pacing
- Review return to work plan

# **Phase Three**

## **Clinic**

- Follow-up appointments
- Reassurance and final measures

## **Workplace**

- Return to pre-injury

# Case Study

## Employee One

### Pre-placement Testing Results Jan '2000

- Grip – 57 lb. Right
- Fingering 48 for 60s
- Bilateral dexterity task 214 s

### Right wrist RSI symptoms in November 2000

- Right hand grip 20 lb.

Ongoing treatment and transitional return to work over a period of several months – 12 Treatments

### Retest December 2002

- Grip –61 lb.
- Fingering 52 for 60s
- Bilateral dexterity task 179 s

# Case Study

## Employee Two

### Pre-placement Testing Results Jan '2000

- Grip – 66 lb. Right
- Fingering 44 for 60s
- Bilateral dexterity task – 198 s

### Right wrist RSI symptoms in October 2000

- Right hand grip 46 lb.

Ongoing treatment and transitional return to work over a period of several months – 12 Treatments

### Retest December 2002

- Grip –75 lb.
- Fingering 59 for 60s
- Bilateral dexterity task – 156 s

# Case Example Plant One

2000-2006	<b>Total</b>
Total Clinic Visits	1166
Total Incidents	102
Total Cost	\$ 46,226.00
Tx Days per Incident	11.5
Cost per Incident	\$ 453.20

# Case Example Plant One

- Make Work Projects - 0
- Permanent Restricted Workers – 0

Accident Year	Premium (\$)	Expected Cost Factor (%)	Expected Costs (\$)	NEER Costs (\$)	Rating Factor (%)	Performance Index
2003	260,441.75	47.04	122,511.80	610.40	69.34	0.00
2002	210,049.61	41.18	86,498.43	1,320.81	54.43	0.02
2001	192,362.60	35.09	67,500.04	58.80	38.83	0.00

# Case Example Plant Two

On-site Rehab Provided over 2 Years

- Over 50% of production employees treated
- 2 Lost Time cases

# Cost of Rehab

- WSIB pre-authorizes 12 weeks of treatment for providers
- Physiotherapy, Chiropractic, Occupational Therapy, Massage Therapy \$ 24 - \$ 50 per treatment
- + Future Cost + Overhead
- Programs of Care for acute back, elbow, shoulder etc.

# Pay Direct Vs. WSIB Cost

<b>Claim Type</b>	<b>Physio Cost</b>	<b>Projected Future Cost</b>	<b>Overhead</b>	<b>Physio Claim Cost</b>
<b>*WSIB Lost Time</b>	<b>\$ 883.68</b>	<b>\$ 2,651.04</b>	<b>\$1,767.36</b>	<b>\$ 5,302.08</b>
<b>**WSIB No Lost Time</b>	<b>\$ 883.68</b>	<b>\$ -</b>	<b>\$ 441.84</b>	<b>\$ 1,325.52</b>
<b>Direct Pay Lost Time</b>	<b>\$ 453.20</b>	<b>0</b>	<b>0</b>	<b>\$ 453.20</b>
<b>Direct Pay No Lost Time</b>	<b>\$ 453.20</b>	<b>0</b>	<b>0</b>	<b>\$ 453.20</b>

# Next Steps

- Train employees on RSI/MSD
- Front line supervision well trained in first steps, accident investigation, job modification
- Management and supervision well versed in direct and indirect cost of injury
- Develop a system for ongoing surveillance
- Management support