

Repetitive Strain Injuries (RSI / ASTD)



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CUPE BC REGIONAL OFFICE**

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This information should not be distributed to the employer.
This information is an overview of the principles derived from the current jurisprudence.
Each case is fact dependent, and, the jurisprudence in this area of labour law changes frequently.
Please ensure you contact your National Representative for all servicing issues.

This is not a legal opinion or legal advice.



Overview

This power point reviews common types of repetitive strain injuries (“RSI”), how WorkSafeBC (“WCB”) claims are filed, how WCB claims may be investigated, common reasons the WCB denies RSI claims and prevention techniques.



CUPE & WCB

- WCB Assistance and Advocacy is not representation. It is educating CUPE members, assisting with claims, advocating for legislative changes, responding to policy and law amendments and working with the WCB community.

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CUPE & WCB (continued)

- For assistance, please your Local President and then the National Representative who will then contact Tom McKenna, National Representative, WCB Advocacy, at:

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Objectives

What to Expect from this Power Point

- Power Point Objectives:
 - ☐ Identify the main RSI type injuries
 - ☐ Identify causes of RSIs
 - ☐ To be able to file an RSI based WCB claim
 - ☐ To be able to file a WCB ASTD / RSI Questionnaire and other paperwork
 - ☐ Identify problems and missing evidence in RSI based WCB claims



Contents of Power Point

- What is an RSI?
- How are Workers Affected by RSIs?
- Why do RSIs Occur?
- What about Ergonomics and Prevention in the WCB Act?
- What does the law and policy say?
- How should an RSI claim be investigated?
- Why are RSI claims often denied?
- Prevention Techniques.
- Questions?

What Is An RSI?

- An RSI is an overuse of a tendon, muscle, ligament, bursa, blood vessels, tendon sheaths, joints, nerve et ceteras.
- It results in a disorder of the musculoskeletal system.
- The primary cause is overuse of the affected area. The primary symptoms are inflammation, pain, and reduced mobility.

more....



What Is An RSI? (continued)

Three Stages of RSI Development:

1. Pain and fatigue during work hours. Work duties not affected. Damage is reversible.
2. Symptoms begin at commencement of work or shortly after. Symptoms do not resolve overnight. Reduced ability to perform duties.
3. Symptoms persist while at rest; worker has difficulty performing even light duties.

more....

What Is An RSI? (continued)

- Repetitive strain injuries have many names. The WCB uses the **first two** most often in law and policy:
 - *Activity Related Tissue Disorder (“ASTD”)*
 - *Musculoskeletal Disorder (“MSD”)*
 - Soft Tissue Injury
 - Cumulative Trauma Disorder (“CTD”)
 - Work-Related Musculoskeletal Disorder (“WSMD”)
 - Strain or Sprain
 - Occupational Overuse Syndrome (“OOS”)
 - Repetitive Motion Disorder (“RMD”)
 - Cumulative Trauma Disorder (“CT”)
 - Overuse Syndrome

more....

What Is An RSI? (continued)

- There are many injuries that can occur as a result of overuse of tendons, ligaments, muscles, nerves, etc. These include:
 - Strains and sprains
 - Epicondylitis (tennis elbow)
 - Carpal Tunnel Syndrome (CTS)
 - Rotator Cuff Syndrome
 - Tenosynovitis
 - Tendonitis

more....

What Is An RSI? (continued)

- Cubital Tunnel Syndrome
- DeQuervain's Syndrome
- Diffuse RSI
- Dupuytren's Contracture
- Ganglion
- Raynaud's Disease
- Thoracic Outlet Syndrome
- Bursitis

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SHOULDERS
10% of joint disorders
10% of all muscle and
ligament injuries
30% of all OOS injuries

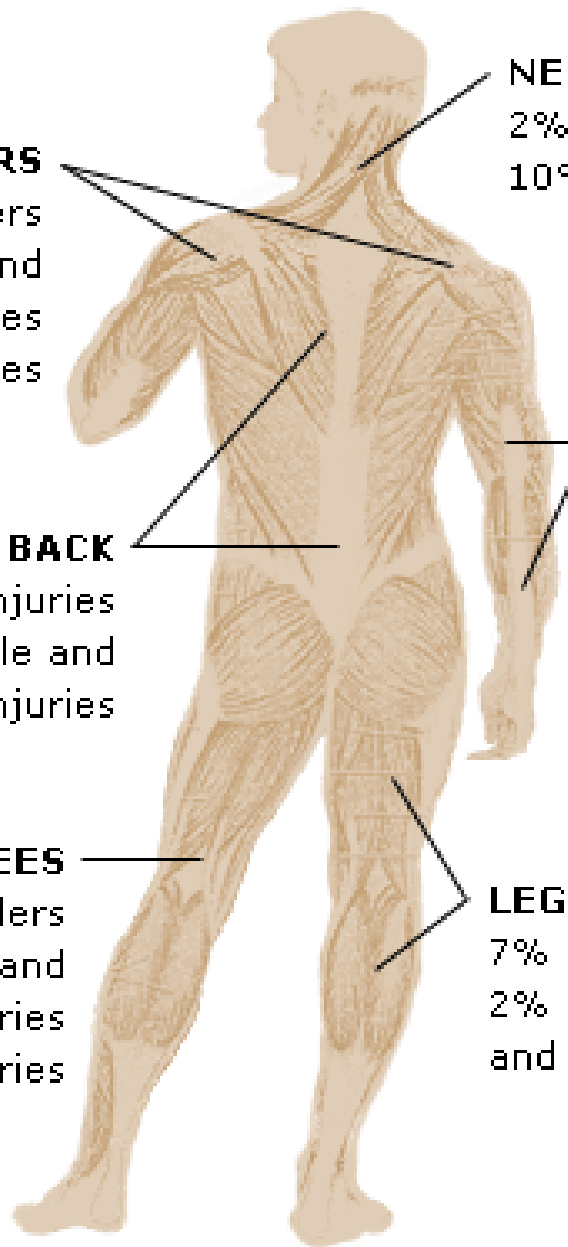
UPPER/LOWER BACK
84% of all spinal injuries
38% of all muscle and
ligament injuries

KNEES
65% of all joint disorders
12% of all muscle and
ligament injuries
5% of all OOS injuries

NECK
2% of all claims
10% of spinal injuries

ARMS
12% of all claims
28% of all muscle
and ligament injuries
32% of all bone
injuries

LEGS
7% of all claims
2% of all muscle
and ligament injuries



What Is An RSI? (continued)

(Most Common Diagnoses)

- **CTS:** Compression of the median nerve in wrist to the hand, with symptoms including pain that can extend to the elbows, numbness, burning, tingling sensations in the hand / wrist /forearm, difficulty gripping objects, difficulty distinguishing between hot and cold, and weakness.

What Is An RSI? (continued)

(Most Common Diagnoses)

- **Tendonitis:** Symptoms can vary from an achy pain and stiffness to the local area of the tendon, to a burning that surrounds the whole joint around the inflamed tendon.

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What Is An RSI? (continued)

(Most Common Diagnoses)

- **Tenosynovitis:** Difficulty moving a joint, joint swelling in the affected area, pain and tenderness around a joint, especially the hand /wrist, pain when moving a joint, and redness along the length of the tendon.
- **Bursitis:** Local joint pain and stiffness, to burning pain that surrounds the joint around the inflamed bursa.

How Are Workers Affected By RSIs?

- Direct and indirect costs include:

- ☐ Injury claims (WCB)
- ☐ Overtime
- ☐ Replacement of workers
- ☐ Sick leave
- ☐ Equipment
- ☐ Duty to Accommodate
- ☐ Retraining
- ☐ Lost productivity





Why do RSIs Occur?

- RSIs occur for a variety of reasons. These include (not an exhaustive list):
 - New or unaccustomed duties or equipment
 - Defective equipment
 - Awkward postures
 - Static loading
 - Repetition such as typing
 - Pinch grips
 - Little task variation
 - Lack of rest breaks
 - Inappropriate height of tables and work stations



What about Ergonomics and Prevention in the WCB Act?

- RSIs are covered by the WCB Act, Occupational Health & Safety Regulations, WCB Policies and the WCB Practice Directives.
- The Ergonomics Regulations portion of the Occupational Health & Safety Regulations are important, useful tools to ensure the **7 step MSI prevention process** is adhered to.

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What about Ergonomics and Prevention in the WCB Act? (continued)

- The **7 step MSI prevention process** is:
 1. Consultation
 2. Education
 3. Risk Identification
 4. Risk Assessment
 5. Risk Control
 6. Training
 7. Evaluation



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What about Ergonomics and Prevention in the WCB Act? (continued)

I. Consultation

CUPE asserts that there must be consultation with the Joint OH&S Committee at all 7 steps of the process.

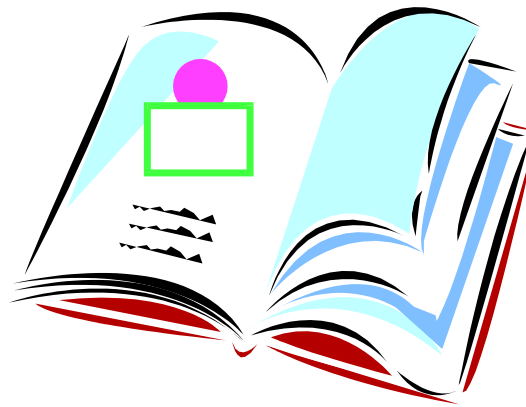


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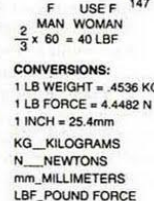
What about Ergonomics and Prevention in the WCB Act? (continued)

2. Education

Workers must be educated on the risk factors, symptoms of RSI and process for filing a WCB claim.



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What about Ergonomics and Prevention in the WCB Act? (continued)

3. Risk Identification

All workplace risks must be identified.



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What about Ergonomics and Prevention in the WCB Act? (continued)

4. Risk Assessment

The risk factors must be assessed to determine the degree of risk to workers. The OH&S Committee, WorkSafeBC and workers should be consulted and involved. There must be more than mere tokenism.

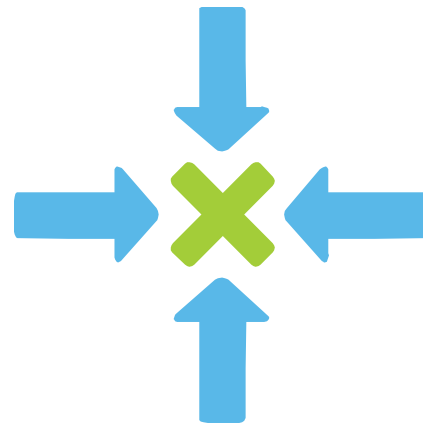


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What about Ergonomics and Prevention in the WCB Act? (continued)

5. Risk Control

If required, control measures must be implemented. The control measures should, in order, eliminate the risk, and then minimize the risks if elimination is not possible.



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What about Ergonomics and Prevention in the WCB Act? (continued)

6. Training

Workers should be trained to use control measures.



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What about Ergonomics and Prevention in the WCB Act? (continued)

7. Evaluation

Ongoing, as opposed to one time evaluation should occur. The goal is to determine if the elimination of RSI risks have been successful, and if not, what needs to occur.



What Does The WCB Law And Policy Say?

- RSIs are compensable under the WCB Act and the interpretation policies of the Rehabilitation Services and Claims Manual (“RSCM”). Policy requires multiple risk factors to be present.
- The OHS Regulations (Ergonomics) also require the employer to conduct assessments in the workplace e.g. as per the WorkSheet B – MSI Risk Factor Assessment.

**WORK INJURY
CLAIM FORM**

1 WORKER'S PERSONAL DETAILS

Title Family Name

Given names

Other known or previous legal names eg Maiden name

Date of birth Gender ☐ Male ☐ Female

What area of the worksite did the incident occur in when you were injured?

What is the street address where the incident occurred?

Suburb

State

What Does The WCB Law And Policy Say? (continued)

❖ WCB Act

Section 5, Section 6, Section 6(3), Schedule B, Section 99, Section 99(3)

❖ WCB Policy (Rehabilitation Services and Claims Manual)

Schedule B, 13.10, 14.10, 14.20, 25.00 to 32.85 – especially 25.00, 25.10, 26.00, 26.01, 26.02, 26.03, 26.04, 26.10, 26.20, 26.21, 26.22, 27.00, 27.10, 27.11, 27.12, 27.13, 27.14, 27.20, 27.30, 27.31, 27.32, 27.33, 27.26, and 27.40.

❖ WCB Practice Directives

#C3-2

❖ Occupational Health and Safety Regulations

Regulations 4.46 to 4.53 and 172 to 177.

more....

What Does The WCB Law And Policy Say? (continued)

- In the initial claims filing and notification, workers may deal with a number of individuals at the WCB. These include:
 - Teleclaim
 - Customer Care Agents
 - Client Service Representatives
 - Nurse Advisors
 - Entitlement Officers*
 - Case Managers*
 - Board Medical Advisors*
 - Vocational Rehabilitation Consultants
 - Return to Work Support Specialists



Note: * denotes most common contact person

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What Does The WCB Law And Policy Say? (continued)

Risk factors - Physical risk factors are the most important. These are the intensity, duration, and frequency of repetition, force, awkward posture and vibration.

- **Repetition** – the shorter the time is between repeated actions, the less chance there is for the muscle to rest and recover.
- **Force** (tension, pressure, friction, or irritation on or of the affected tissue) – the force required by the muscles.
- **Awkward postures** (such as overhead reaching and lifting) – there is a higher risk of developing an ASTD where work is done at the end of the range of motion, or where muscle strength is required to hold the posture.
- **Local mechanical stresses** – more forceful contact with objects, such as tools and machinery.



What Does The WCB Law And Policy Say? (continued)

- **Shock** (also known as impact loading) – resisting force from a tool, or applying sudden, high amounts of force.
- **Grip type** – gripping with fingers causes more soft tissue stress than a whole-hand grip.
- **Vibration**
- **Task variation** – the less varied the task, the more chance there is for an ASTD.
- **Extremes of temperature** – exposure to hot or cold may increase the chance of sustaining an ASTD.

more....

What Does The WCB Law And Policy Say? (continued)

Other Factors:

A. Work Environment

- poorly designed work stations or tasks (ergonomics);
- work organization - how the work tasks are structured and supervised (e.g. overtime, incentive for faster pacing, lack of supervision);
- work behaviour – non-optimal work habits;
- cognitive demands – the amount of mental effort required, which can increase muscle tension; and
- rest breaks (their length and frequency).

Work Comp Made Easy!

$$\int_{t_0}^t dt_1 e^{\frac{i}{\hbar} H_0(t_1-t_0)} V(t_1) e^{-\frac{i}{\hbar} H_0(t_1-t_0)} - \frac{i\lambda}{\hbar-1} \int_{t_0}^t -t \sum \langle n|V|n \rangle t - i$$

$$\frac{it}{\hbar v} \int_{t_0}^t dt H_0 + i - \frac{i\lambda}{\hbar} \int_{t_0}^t dt_1 e^{\frac{i}{\hbar} H_0(t_1-t_0)} V(t_1) e^{-\frac{i}{\hbar} H_0(t_1-t_0)} U(t) = 1 - \frac{i\lambda}{\hbar} \int_{t_0}^t$$

$$+ \lambda \sum - \frac{\partial t|t\rangle}{\partial t} = i\hbar \frac{\partial |\psi\rangle}{\partial t}$$

$$- \frac{1}{\hbar^2} \int_{t_0}^t dt \rightarrow H_0 + i > t$$

$$\rightarrow i \frac{1}{\hbar}$$



$$[H(t)|\psi\rangle] = i\hbar \frac{\partial |\psi(t)\rangle}{\partial t} - \frac{i\lambda}{\hbar-t}$$

$$\downarrow \int_{t_0}^t -th$$

$$H_0 + \lambda V(t) > \frac{1}{x^2} + t \frac{1}{\hbar}$$

$$\int_{t_0}^t dt_1 e^{\frac{i}{\hbar} H_0(t_1-t_0)} V(t_1) e^{-\frac{i}{\hbar} H_0(t_1-t_0)} - \frac{i\lambda}{\hbar-1} \int_{t_0}^t -t \sum \langle n|V|n \rangle t - i$$

$$U(t) = 1 - \frac{i\lambda}{\hbar} \int_{t_0}^t dt_1 e^{\frac{i}{\hbar} H_0(t_1-t_0)} V(t_1) e^{-\frac{i}{\hbar} H_0(t_1-t_0)} - \frac{i\lambda}{\hbar-1} \int_{t_0}^t -t$$

What Does The WCB Law And Policy Say? (continued)

Other Factors:

B. Health

- age;
- weight;
- gender;
- previous medical history (similar disorders in the past, or smoking);
- inflammatory disorders (rheumatoid arthritis, ankylosing spondylitis, systemic sclerosis, polyarthritis, colitis, etc.);
- diabetes mellitus.

more....

What Does The Law And Policy Say? (continued)

- Filling out the Form 68W32 - Activity-related Soft Tissue Disorder (ASTD) Pre-Site Questionnaire, as per:

<http://www.worksafebc.com/forms/assets/PDF/68w32.pdf>

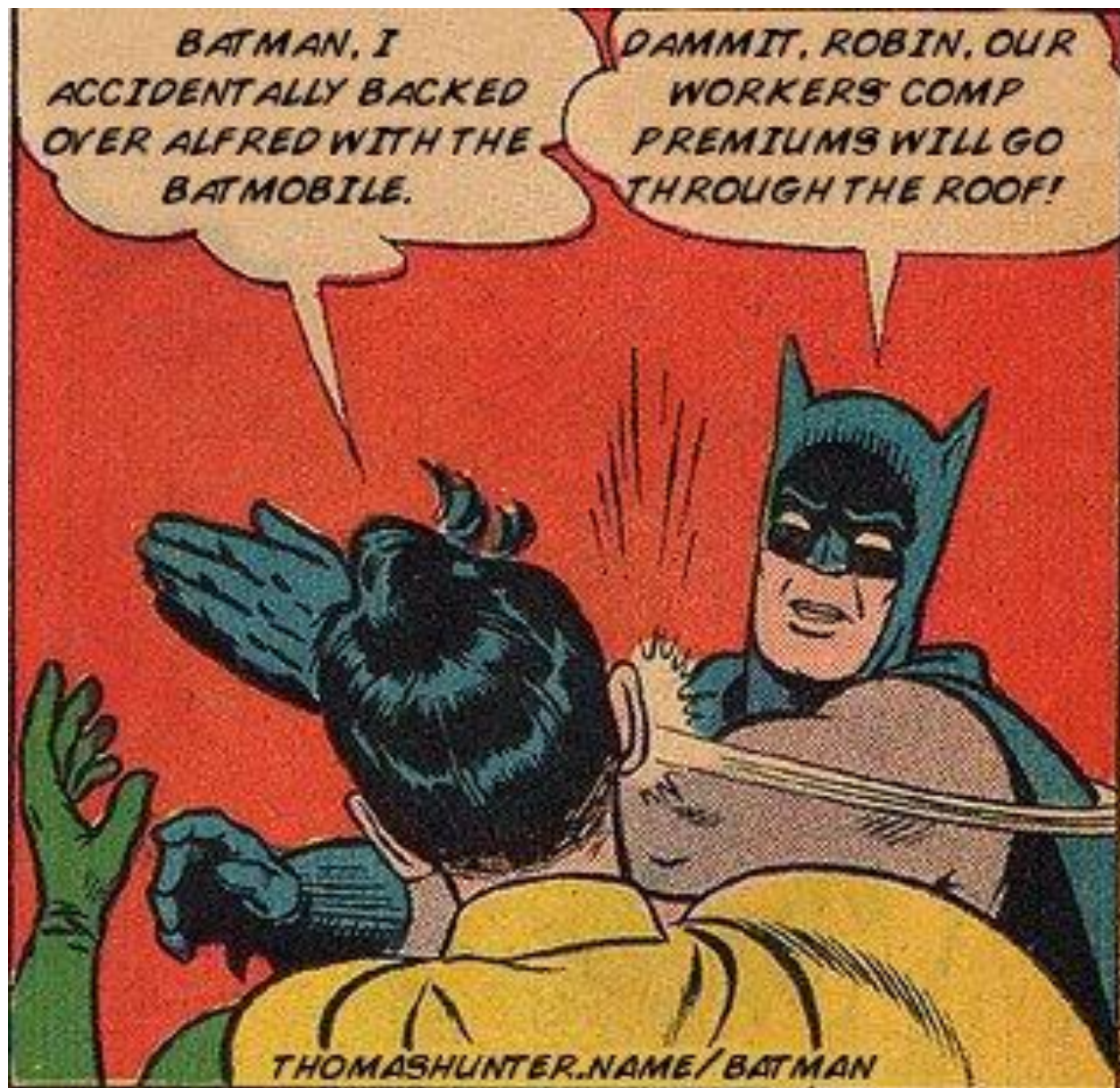
This is a very important form; probably the most important for RSI / ASTD claims. CUPE has a sample template.

- Filling out the Worksheet “B” – MSI Risk Factor Assessment Survey from WorkSafeBC

How Should An RSI Claim Be Investigated?

Below are the kinds of questions workers will need to answer:

- What are the symptoms?
- When are the symptoms worse - morning, evening, at home, at work?
- What makes the symptoms worse - gripping, writing, driving, etc.?
- Did the symptoms develop over minutes, hours, days, months, or a number of years?
- Is the problem on the left or right side? Which side was first?



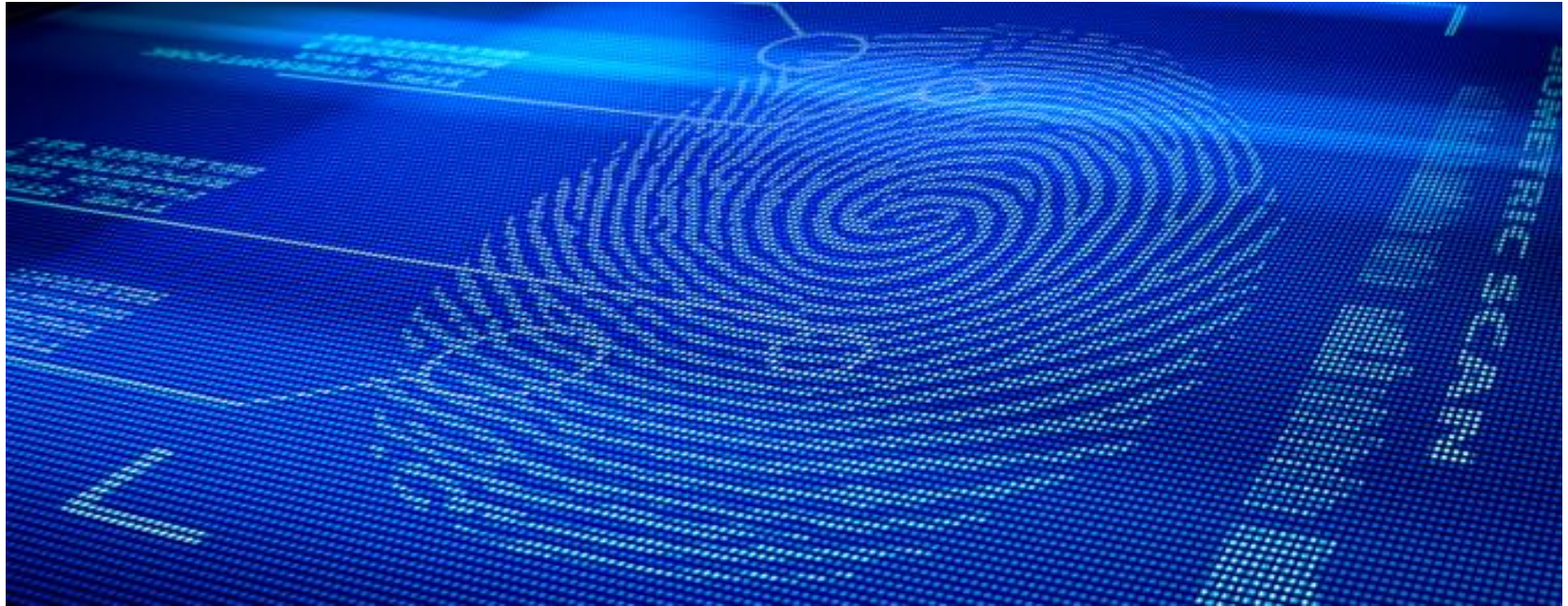
How Should An RSI Claim Be Investigated?

- Do they get better when they are away from work?
- What is the current job and how long have they done it?
- Did they have problems doing this kind of work for other employers?
- Have they recently had any interruptions in their employment such as a vacation, leave of absence, strike or lockout, layoff, or medical treatment before the condition started?
- Were there any changes in the normal work hours, such as overtime or an increase in regular hours?

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How Should An RSI Claim Be Investigated? (continued)

- Have the employment activities or job duties changed, such as having new activities added, using new equipment, a change in production, loss of a helper, equipment in disrepair, etc.?
- If the job requires a repeated task, how long does it take to complete the task once?
- How many times do they repeat the same motion or muscular activities per minute or per hour?
- Is there any significant force involved?



How Should An RSI Claim Be Investigated? (continued)

- Does their work involve any awkward or uncomfortable postures?
- Do the work activities vary throughout the day and, if so, how often?
- How often do they get breaks and how long do they last?
- Do they regularly use tools or vibrating equipment?

Why Are RSI Claims Often Denied?

- The primary reasons why RSI claims are denied are (in order):
 - ❑ Incorrectly filling out the Form 68W32 (key).
 - ❑ No change in job duties over the previous 6 to 12 months prior to injury / symptoms onset.
 - ❑ Worker is deemed to have adapted to job over time.
 - ❑ Less than 3 RSI / ASTD factors present.
 - ❑ Evidence of task variability.
 - ❑ No evidence of repetition, per WCB definition.



Image Courtesy of StuartMiles/Freedigitalphotos.net

Prevention Techniques

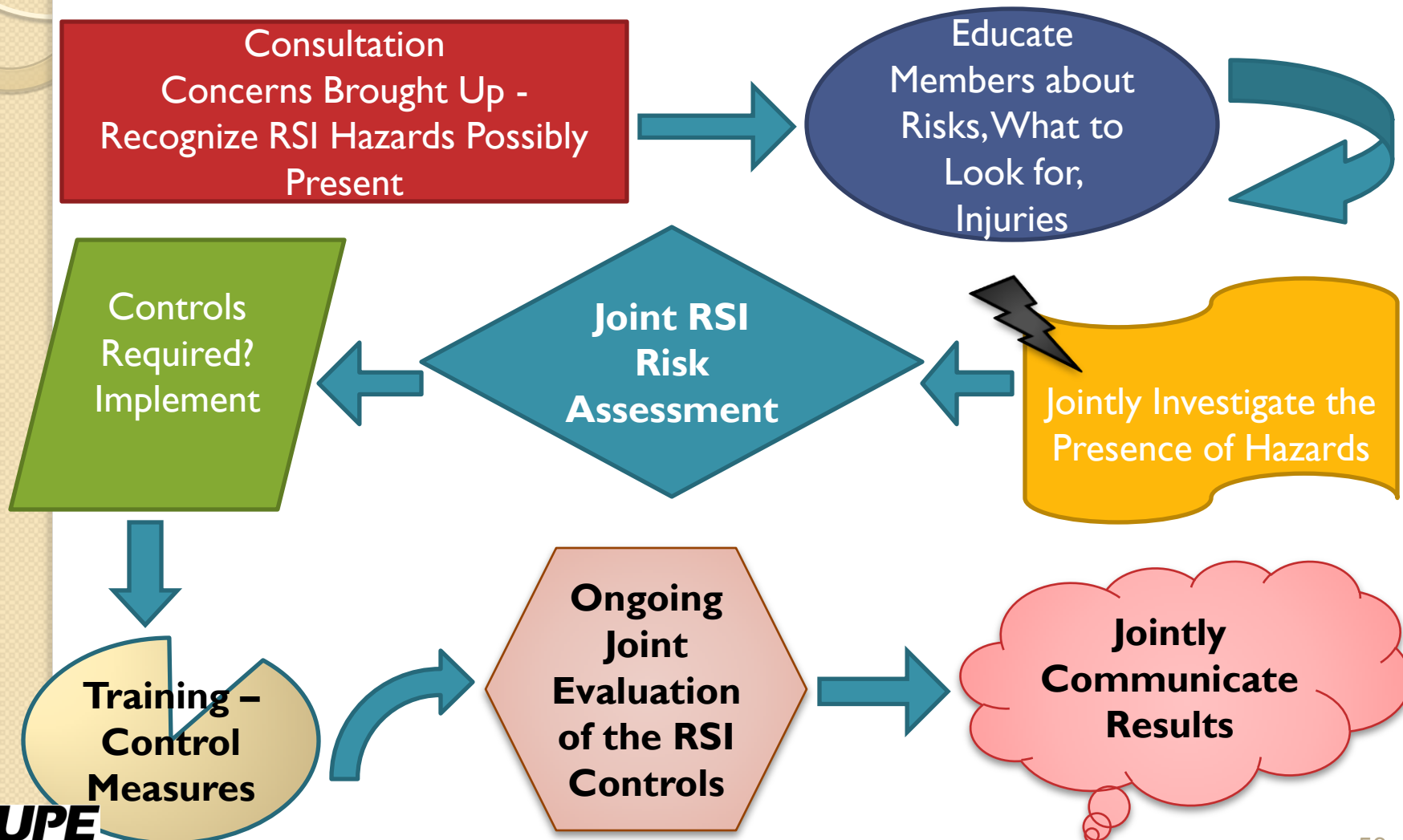
- When addressing safety issues, there is a hierarchy of control. This is meant to address workplace hazards. The descending order is:
 - ✓ Elimination of the hazard
 - ✓ Substitution of hazard with non-hazard
 - ✓ Engineering control
 - ✓ Administrative Control
 - ✓ Personal Protective Equipment

more...



Prevention Techniques (continued)

Here is a simple chart for addressing RSIs per <http://www2.worksafebc.com/Topics/Ergonomics/FAQ.asp>:



Prevention Techniques (continued)

Here are a number of RSI prevention:

- Employers should first analyze their areas for ergonomic risk factors, per the 7 stage MSI Prevention Process.
- New equipment such as scanners, desks, book carts, etc. should be considered in conjunction and through the joint OH&S Committee.
- Employers should train and educate employees .
- Employers should accommodate, as part of the Duty to Accommodate process.

more...

Prevention Techniques (continued)

- Employees should use good postures and work techniques.
- Employees should adjust their workstations.
- Over lifting should be avoided.
- Rest breaks should be taken.
- Use the rule of “20 / 20 / 20”.
- Incorporate task variation and natural rest breaks, including micro-rest breaks.



Prevention Techniques (continued)

- Working heights, sitting versus standing workstations, counter width, horizontal leg room allowances, knee room;
- Requirements, side to side reaching limits, horizontal and vertical reaching limits and monitor and positions; and,
- Visual requirements are some of the main parameters that should be reviewed.
- Desks that allow workers to alternate sitting and standing should be present.
- Workers should be able to adjust their workstation height to sit or stand.

Prevention Techniques (continued)

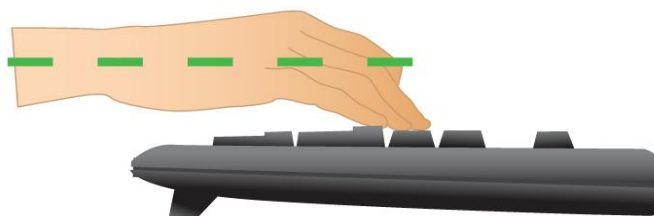
- Antifatigue mats should be used.
- Monitors should be at eye level.
- Use mice or track pads vertical.

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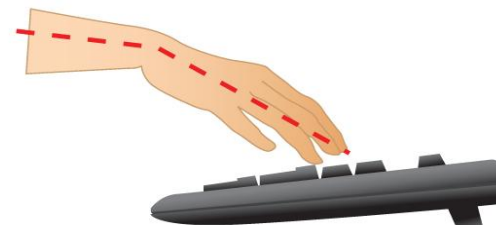
RIGHT!



RIGHT!



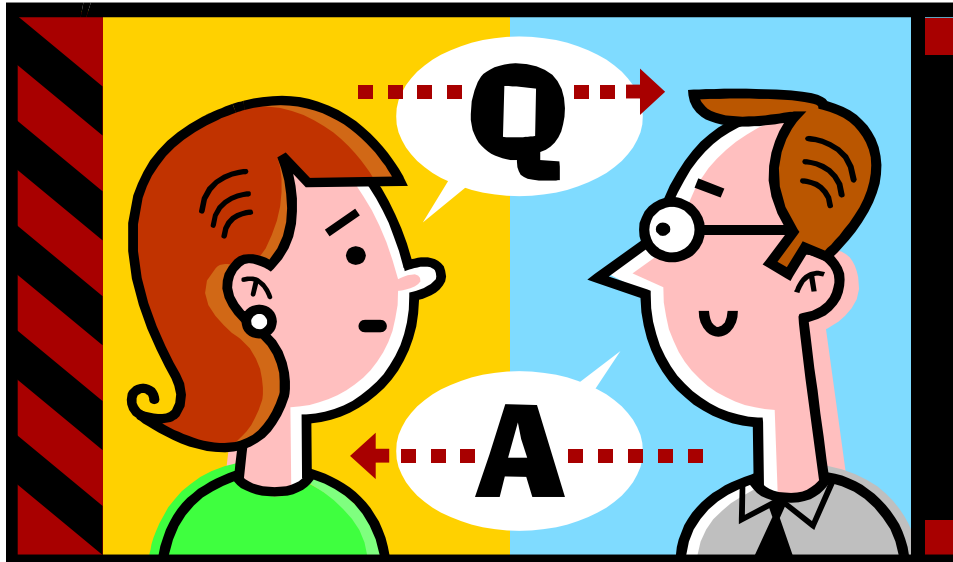
WRONG!



WRONG!



Questions?



Other Materials and Resources

- ASTD Questionnaire - Form 68W32
- ASTD Questionnaire - Form 68W32 Template
- WorkSheet “B” – MSI Risk Factor Assessment
- Preventing Musculoskeletal Injury (MSI)
- Guide for CUPE BC Members – Obtaining Medical Evidence & Reports for WorkSafeBC Claims & Appeals
- Guide to Filling Out WorkSafeBC Form 8 / 11
- Guide to Filling Out WorkSafeBC Form 6

REPEAT AFTER ME

TOO MUCH • TOO FAST • TOO OFTEN = TOO PAINFUL TO STAND

Repetitive strain injuries. Don't let them repeat the same old mistakes.