ERGONOMIC & WELLNESS INITIATIVES
TO PREVENT WORKPLACE INJURIES

Presented By:
Marnie Downey, M.Sc., CCPE, R.Kin.
President

About ERGO Inc.

PROFESSIONAL ERGONOMIC, INJURY MANAGEMENT & SAFETY SERVICES

Ergonomic / MSD Risk Assessments  Office & Industrial Ergonomics  Ergonomic Training Workshops

“Healthy Workers add up to Healthy Profits”
**Agenda**

1. Overview of Ergonomics and Wellness Goals
2. Relationship between Ergonomics & Wellness
3. Group discussions on specific wellness / ergonomic issues:
   1. Vehicle and travel
   2. Product & tool selection
   3. Aging workers
   4. Daily living
   5. Work habits & work methods related to prolonged sitting

---

**ERGO vs. WELLNESS?**

- Two sides of a coin?
- or
- The ‘same’ concept?

Construction workers in Bilboa doing aerobic classes as promotion to reduce MSDS

---

© ERGO Inc. 2014
www.ergoconsulting.ca
info@ergoconsulting.ca
Ergonomics?

“It’s an ergonomic ankle support to help you be more productive.”

Ergonomics

- The **SCIENCE** of designing work tasks to fit the worker, keeping in mind the capabilities and limitations of the human body

- An **EFFECTIVE** ergonomic improvement process identifies and eliminates any deterrent to maximum work capacity, and limits worker fatigue and discomfort while also improving process efficiency and productivity.
Poor Ergonomics

- INCREASES INJURY RISK

- An ergonomically inefficient workplace introduces risk factors that contribute to costly and painful musculoskeletal disorders (MSDs)

Effective Ergonomics

- DECREASES INJURY RISK

- Implementing ergonomic controls will reduce employee exposure to risk factors such as high task repetition, forceful exertions and repetitive/sustained awkward postures

- By limiting MSD risk factors and improving the workstation, workers are safer, healthier and more productive
Ergonomics

Workplace ergonomics PROTECTS THE HEALTH OF WORKERS by reducing injury risk and removing inefficiencies.

Development of MSDs - is the cause ergonomic or individual?

Musculoskeletal Disorders form over the course of time as the result of exposure to MSD risk factors (ergonomic risk factors and individual risk factors).
Defining ‘Wellness’

Wellness: “the condition of good physical, mental and emotional health, especially when maintained by an appropriate diet, exercise and other lifestyle modifications”

http://medical-dictionary.thefreedictionary.com/wellness

- Conscious, self directed and evolving
- Multi-dimensional and holistic, encompassing lifestyle, mental and spiritual well-being and environment
- Positive and affirming

Work Wellness

Workplace wellness is any workplace health promotion activity or organizational policy designed to support healthy behavior in the workplace and to improve health outcomes.

en.wikipedia.org/wiki/Workplace_wellness
Steelcase’s Wellness Concept

We believe the workplace can be a place where people actually leave healthier than when they arrive in the morning

Nancy Hickey, Senior VP and CAO, Steelcase

Workplace Wellness Philosophy
Maximizing Worker Performance (NASA)

Poor wellness increases injury risk
A poor health profile of a WORKER is a major contributing risk factor in the development of musculoskeletal disorders and injuries
Workplace Wellness

- Effective wellness programming enhances human performance
- Wellness programming can reduce the risk of injury and illness by building up the health profile of workers.

Safety Culture

- Many companies have made vast improvements to ensure SAFE workforce
  - What happens in your workplace if an injury or incident occurs???
    - Cessation of work
    - Investigation of root cause...
Think not SAFETY but **WELLNESS**

Investing in overall worker health **CREASES** increased worker safety job

Workplace Wellness programs promote the health and overall well-being of employees
WORKPLACE WELLNESS

Employee Health Risks

- 59% do not get adequate exercise
- 50% or more have high cholesterol
- 27% have cardiovascular disease
- 26% are overweight by 20% or more
- 24% have high blood pressure

70% to 90% of health care spending is caused by preventable, modifiable health risks!

Reference - Medifit

HEALTHY EYES = high performance

GLAUCOMA is the leading cause of blindness worldwide

50% go undiagnosed

DID YOU KNOW

80% of serious visual loss is treatable if discovered early

Source: World Health Organization

This increases to 87% after the age of 45

51% of the population has at least one eye problem
Workplace Wellness

Wellness programs that create even marginal reductions in risk factors for chronic health conditions have the potential to be high-impact, cost-effective answer to disturbing trends in overall workforce health.

Reference - Medifit
Ergonomic & Wellness Initiatives

Ways to Be Well at Work

- Kick the Habit
- Eat Healthy
- Take the Stairs
- Walk Well
- Lunch Groups
- Stay Healthy
- Get Screenings & Flu Shots
- Talk It Out to Reduce Stress

Reference - Medifit

Reduction in Risk

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Reduction in Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Risk</td>
<td>49%</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td></td>
</tr>
<tr>
<td>Low Risk</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>46%</td>
</tr>
</tbody>
</table>

Percent of individuals who reduced risk by participating in workplace wellness programs

Reference - Medifit

© ERGO Inc. 2014
www.ergoconsulting.ca
info@ergoconsulting.ca
Workplace Wellness

- A Wellness Program will require a budget, but it need not be large
- An interest survey can help to target your program
- Participation & effectiveness will be best if it is no-cost to the employees
- Document & evaluate results
- Pay-off can be significant
Workplace Wellness

- A Smoking Cessation
- Vision and hearing screening
- Alcohol & Controlled Substance Abuse
- Weight Management
- Nutrition Education
- Stress Management
- Claims Management, RTW, Treatment and Ergonomics link closely with Wellness program

Workplace Fitness

- On-site or Off-site or Both
- Find effective exercise leaders, perhaps employees
- Introductory Fitness class
- Walking programs, most popular, especially for novices
- Running, Stretching, Aerobics, Dance, Weights, Circuit Training
Workplace Wellness Week

<table>
<thead>
<tr>
<th>Mon—April 1</th>
<th>Tue—April 2</th>
<th>Wed—April 3</th>
<th>Thu—April 4</th>
<th>Fri—April 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MORE FRUITS &amp; VEGETABLES MONDAY</strong></td>
<td><strong>TRANQUILITY TUESDAY</strong></td>
<td><strong>WATER WEDNESDAY</strong></td>
<td><strong>THANKFUL THURSDAY</strong></td>
<td><strong>FITNESS FRIDAY</strong></td>
</tr>
<tr>
<td>• Add one more serving of a fruit &amp; a veggie today</td>
<td>• Come get a FREE chair massage in the Employee Wellness Center today (12-1p &amp; 2:30-6:30p)</td>
<td>• Try drinking just water today</td>
<td>• Be thankful for what you have today</td>
<td>• Grab a friend/co-worker and take a walk around campus</td>
</tr>
<tr>
<td>• Find yummy recipes online: <a href="http://www.usu.edu/wellness">www.usu.edu/wellness</a></td>
<td>• Try a FREE Yoga class with Denise today at noon in HPER 213 or go to our website to view our Yoga video</td>
<td>• Drink an extra 8 oz of water today</td>
<td>• Find out more about yourself by scheduling a fitness assessment (email: <a href="mailto:angels.helm@usu.edu">angels.helm@usu.edu</a>)</td>
<td>• Take the stairs instead of the elevator</td>
</tr>
<tr>
<td>• Share a healthy recipe with us so we can share it with others</td>
<td></td>
<td>• FREE Brown Bag in Library 154 from 12-1p: Why Water Works</td>
<td>• FREE health screenings in the Employee Wellness Center (HPER 109 11:30a-6:30p)</td>
<td>• Park further away</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Sample workouts online: <a href="http://www.usu.edu/wellness">www.usu.edu/wellness</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• FREE Running Clinic today on the HPER Field (west side) at noon</td>
</tr>
</tbody>
</table>

Ergonomic & Wellness Initiatives

Ergonomics vs. Wellness

- Improve physical layout
- Ensure neutral postures
- Place loads into positions where maximal strength can be applied
- Avoid prolonged static postures

Increasing Range of Motion (ROM) through Yoga, Flexibility training allows workers to have greater ‘safe ranges’

- Improving strength allows greater capacity to maintain loads in awkward postures
- Improved proprioception gives workers better feedback when time to change posture
CASE STATIONS

Let’s consider specific scenarios where combining Ergonomic principles with Wellness will enhance performance.

Ergonomic Product Selection

A snow shovel
A computer mouse
Product Selection

What are some of the Ergonomic Issues associated with the selection of a product or tool?

Product Selection

What are some of the Health Issues associated with the selection of a product or tool?
Product Selection

How would you optimize human performance when snow shoveling?

Product Selection

What are some of the Ergonomic Issues associated with the selection of a product or tool?
Product Selection

What are some of the Health Issues associated with the selection of a product or tool?

Product Selection

How would you optimize human performance while mousing?
Aging worker

What are some of the Ergonomic issues associated with aging?
Aging Worker

What are some of the Wellness issues associated with a aging worker?

Aging Worker Tools

How would you optimize human performance for an Aging worker??
Vehicle and Travel

What are some of the Ergonomic Issues associated with driving?
Vehicle and Travel

Common Driving Injuries

According to one study, foot cramps are the most common repetitive driving injury, followed by back pain, neck stiffness, side ache and eye strains, which often lead to headache

(Reference: Motion Trends)

Vehicle and Travel

What are some of the Health Issues associated with Vehicular movement?
Age Suit to test vehicles

Vehicle and Travel

How would you improve the ergonomics of driving?

Correct posture when driving:
- Use cushions to experiment if you need a higher seat or support in the small of your back.
- Good posture when driving.

Wrong posture when driving:
- Bad posture when driving.

© ERGO Inc. 2014
www.ergoconsulting.ca
info@ergoconsulting.ca
Ergonomic Tips

- Adjust your car seat
- Don’t sit on your wallet
- Adjust all mirrors - add a mirror if necessary
- Try to avoid gripping too hard on the wheel
- Keep your shoulders stress free and relaxed
- Focus on driving!
- Take frequent breaks

Driving and Reaction Time

HOW OUR REACTIONS SLOW

This chart shows the percentage increase in distracted drivers’ response times. An undistracted driver typically reacts in 1 second.

- 13% Drink-drive limit
- 21% High on cannabis
- 27% Hands-free phone
- 37% Texting
- 46% Hand-held phone

Source: Transport Research Laboratory
Daily Living
Groceries

Daily Living Tools

What are some of the Ergonomics Issues associated with grocery shopping – pushing carts, carrying bags, packing, unloading from vehicle?
Daily Living Tools

What are some of the Wellness issues associated grocery shopping?

Daily Living Tools

How would you optimize human performance while grocery shopping?
Work habits and methods

Prolonged sitting

Work Habits & Work methods

What are some of the Ergonomics Issues associated with prolonged sitting?
Work Habits & Work Methods

What are some of the Wellness issues associated with prolonged sitting?

How would you minimize injury risk and improve overall health at work related to prolonged sitting?
Sit-stand Stations

- First consideration – can employee stand while doing tasks at work
- Consider if a full sit-stand station is required
- Consider shared standing stations
- Accommodations vs. “normal” work spaces

Fully adjustable workstations may not be required

Various types and options

Conset Height adjustable bases

Varidesk sits on a workstation
**Sit-stand Stations**

- Height adjustable keyboard arms and monitor stands are another option

http://www.youtube.com/watch?feature=player_detailpage&v=JxvmhnKhnlc

**Summary**

Without ergonomics you do not have wellness!
Thank you for attending this workshop!
Questions?

ERGO Inc.
Evaluating Risks in Growing Occupations Inc.

www.ergoconsulting.ca
Ergonomic & Wellness Initiatives

Join Our BLOG @

www.ergoconsulting.ca

“Healthy Workers add up to Healthy Profits”