Costs of Ergonomics-Related Injuries

Ergonomic Workstation

Source: www.cdc.gov
Common Injury Types

**Musculoskeletal Disorders (MSDs):** injuries or disorders that affect the body’s movement or musculoskeletal system (i.e. muscles, tendons, ligaments, nerves, blood vessels, discs)

Source: www.ergo-plus.com

Common Injury Types

**Common MSDs for office staff**

- Carpal Tunnel Syndrome
- Bursitis
- Tendon injuries
- Muscle strains
  - Neck
  - Upper back
  - Lower back
  - Shoulders
Common Injury Types

General causes of MSD injuries
- Repetitive work
- Forceful movement
- Pushing/pulling
- Awkward postures and movements
- Lifting
- Vibration
- Sudden injury (i.e. falls, struck by)

Musculoskeletal Disorders:
- Account for 30% of all workplace injuries (source: Bureau of Labor Statistics)
- Cost employers nearly $20 billion dollars per year in direct costs (source: CDC)
- Can cost up to five times the direct costs in indirect costs (source: OSHA)
- Require roughly 38% more lost-time days than other injuries and illnesses
Cost Considerations

What is the Impact?

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Direct Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpal Tunnel Syndrome</td>
<td>$30,000</td>
</tr>
<tr>
<td>Inflammation (bursitis, tendinitis)</td>
<td>$35,007</td>
</tr>
<tr>
<td>Sprain</td>
<td>$28,866</td>
</tr>
<tr>
<td>Strain</td>
<td>$33,528</td>
</tr>
<tr>
<td>Contusion</td>
<td>$27,042</td>
</tr>
<tr>
<td>All Other Cumulative Injuries</td>
<td>$40,043</td>
</tr>
</tbody>
</table>

https://www.osha.gov/dcp/smallbusiness/safetypays/estimator.html
But wait, is there more?

Indirect Costs!

Examples include:
• Lost productivity or service standards
• Additional supervisor or administrator time required
• Recruiting, hiring and training replacement workers
• Temporary labor and overtime costs
• Damage to building, equipment and/or materials
• Interim equipment rentals
• Emergency supplies
• OSHA fines (if applicable)

Tip of the Iceberg
### Cost Illustration

A company has four workers’ compensation losses in one year….

<table>
<thead>
<tr>
<th>Injury Type</th>
<th>Instances</th>
<th>Direct Cost</th>
<th>Indirect Cost (110% of Direct)</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sprain</td>
<td>1</td>
<td>$28,866</td>
<td>$31,752</td>
<td>$60,618</td>
</tr>
<tr>
<td>Carpal Tunnel Syndrome</td>
<td>1</td>
<td>$30,000</td>
<td>$33,000</td>
<td>$63,000</td>
</tr>
<tr>
<td>Strain</td>
<td>1</td>
<td>$33,528</td>
<td>$36,880</td>
<td>$70,408</td>
</tr>
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<td>Strain</td>
<td>1</td>
<td>$33,528</td>
<td>$36,880</td>
<td>$70,408</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4</strong></td>
<td><strong>$125,922</strong></td>
<td><strong>$138,512</strong></td>
<td><strong>$264,434</strong></td>
</tr>
</tbody>
</table>

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### Cost Illustration

Using a 3% profit margin, in order to compensate for ONLY the **indirect** costs of these four MSD claims, this company must generate in additional sales:

$4,617,140!
Workers’ Compensation Data

CT 2015 average claim cost per lost time claim: $30,000

Source: NCCI State Advisory Forum_CT_10-2016

Workers’ Compensation Data

Claim Frequency per 100,000 Workers

CT | 1264 | 2621
ME | 926  | 4526
NH | 901  | 2942
RI | 1470 | 2415
VT | 1059 | 3247

Region | 1068 | 3307

Source: NCCI State Advisory Forum_CT_10-2016
CBIA Data

2011-2016 average number of claims per year: 292
2011-2016 direct average cost per claim: $13,673

The impact of eliminating ANY number of claims is significant!

Do Ergonomics Matter?

Actual claims sustained by CBIA employers

- Rotator cuff injury: $125,000 incurred
- Rotator cuff injury: $119,000 incurred
- Back injury from lifting: $342,000 incurred
- Back injury from lifting: $385,000 incurred
- Bi-lateral carpal tunnel syndrome: $215,000 incurred
Actual Excess Claim Example

Ms. F

• Ms. F was a sales and marketing employee who complained of hand and wrist pain from packing, lifting and taping boxes.
• She treated conservatively before being diagnosed with torn fibrocartilage complex in her right hand.
• She underwent surgery and subsequently developed Complex Regional Pain Syndrome.

Actual Excess Claim Example

Guess the cost….

• $407,045 paid to date.
• Current annual medical cost is roughly $20,000.
• 55 year old female has a life expectancy of 28 years.
• Potential projected future medical cost of $560,000.
Actual Excess Claim Example

Ms. S

- Ms. S was employed as a medical biller.
- She experienced low back pain.
- Her work station was modified to accommodate those pains.
- The modification caused her to push up repeatedly to take her modified seat which caused her to suffer pain in her hand.

- She was diagnosed with a Triangular Fibrocartilage Complex tear.
- It progressed to elbow pain and later to left shoulder.
- The injury later progressed into complex regional pain syndrome.
- She had pool therapy with mirror imaging of the thumb did not improve the condition.
Actual Excess Claim Example

Guess the cost…..
• $145,266 total paid to date.
• Proposed Medicare Set Aside Cost… $635,000!
• Potential indemnity costs….. $546,002!

Thank You for Joining Us
Have a Safe Day!