Musculoskeletal Disorders

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What is a musculoskeletal disorder?

- Musculoskeletal system – two components the muscular system and the skeletal system.
What is a musculoskeletal disorder?

• Acute
• Chronic
• Conditions that involve the nerves, tendons, muscles, and supporting structures of the body and compromise their function.
What is a work-related musculoskeletal disorder?

- Work is the only identifiable cause
- Work contributes significantly as one of several causative factors
Which parts of the body are affected?

- Shoulder tendinitis
- Rotator cuff tendinitis
- Biceps tendinitis
- Shoulder capsulitis
- Lateral epicondylitis
- Carpal Tunnel Syndrome
- Wrist Tenosynovitis
- Hand Arm Vibration Syndrome
- Knee osteoarthritis
- Knee meniscus injury
- Bursitis
- Cervical spondylosis
- Thoracic Outlet Syndrome
- Tension Neck
- Medial epicondylitis
- Forearm pain
- De Quervain’s disease
- Back pain
- Hip osteoarthritis
ILO Listed Musculoskeletal disorders

- 2.3.1. Radial styloid tenosynovitis
- 2.3.2. Chronic tenosynovitis of hand and wrist
- 2.3.3. Olecranon bursitis of the elbow region
- 2.3.4. Prepatellar bursitis (knee)
- 2.3.5. Epicondylitis (elbow)
- 2.3.6. Meniscus lesions (knee)
- 2.3.7. Carpal tunnel syndrome
- 2.3.8. Other musculoskeletal disorders

- 1.2.2. Diseases caused by vibration
- 1.2.3. Diseases caused by compressed or decompressed air
Exposed to physical risks over time
(% exposed quarter of time or more)

- Vibrations
- Noise
- High temperatures
- Low temperatures
- Breathing in smoke/dust and/or vapours
- Chemical substances
- Tiring or painful positions
- Heavy loads
- Repetitive hand or arm movements

Exposure to physical risks by gender
(% exposed quarter time or more) EU27

- Vibrations
- Noise
- Breathing in smoke/dust and/or vapours
- Heavy loads
- Low temperatures
- High temperatures
- Tobacco smoke
- Standing
- Chemical substances
- Tiring or painful positions
- Repetitive hand or arm movements
- Infectious materials
- Lifting or moving people

Exposure to combined physical risks by sector

Psychosocial risk factors and musculoskeletal disorders

• High job demands
• Lack of job control
• Monotonous work
• Limited social support (at work)
Work intensity and job autonomy by sector and occupation EU27

Prevalence studies of regional pain and clinical disorders in the upper limb and neck

<table>
<thead>
<tr>
<th>Pain site/disorder</th>
<th>Age group</th>
<th>Prevalence interval</th>
<th>Prevalence</th>
<th>Study population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder pain</td>
<td>31–74</td>
<td>point</td>
<td>20%</td>
<td>community, Stockholm</td>
</tr>
<tr>
<td></td>
<td>working age</td>
<td>point</td>
<td>13%</td>
<td>aeroengineering factory</td>
</tr>
<tr>
<td></td>
<td>middle age</td>
<td>one month</td>
<td>14%</td>
<td>community, Malmo</td>
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<td>Elbow pain</td>
<td>33–39</td>
<td>point</td>
<td>11.6%</td>
<td>textile workers</td>
</tr>
<tr>
<td></td>
<td>working age</td>
<td>point</td>
<td>11–13%</td>
<td>aeroengineering factory</td>
</tr>
<tr>
<td>Epicondylitis</td>
<td>working age</td>
<td>point</td>
<td>2%</td>
<td>aeroengineering factory</td>
</tr>
<tr>
<td></td>
<td>31–74</td>
<td>point</td>
<td>2.5%</td>
<td>community, Stockholm</td>
</tr>
<tr>
<td>Epicondylitis and tenosynovitis</td>
<td>50–70</td>
<td>point</td>
<td>4.7%</td>
<td>community, Sweden</td>
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<tr>
<td>Tenosynovitis</td>
<td>33–39</td>
<td>point</td>
<td>3.5%</td>
<td>textile workers</td>
</tr>
<tr>
<td>Carpal tunnel syndrome</td>
<td>25–74</td>
<td>point</td>
<td>0.6% (M)</td>
<td>community, Holland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8% (F)</td>
<td></td>
</tr>
<tr>
<td>Neck pain</td>
<td>25–74</td>
<td>point</td>
<td>10%</td>
<td>community, US</td>
</tr>
<tr>
<td></td>
<td>33–39</td>
<td>point</td>
<td>4%</td>
<td>textile workers</td>
</tr>
<tr>
<td></td>
<td>working age</td>
<td>point</td>
<td>10%</td>
<td>aeroengineering factory</td>
</tr>
</tbody>
</table>

Ann Rheum Dis 1998;57:445–446
How much does it cost?

- Some studies have estimated the cost of work-related upper limb musculoskeletal disorders (WRULD) at between 0.5% and 2% of Gross National Product (GNP).
- France (2005) three quarters of occupational diseases were musculoskeletal disorders. The 31,000 compensated diseases have lead to a loss of 6.5 million workdays and a cost of 650 million EUR.
- Germany (2006) costs of musculoskeletal diseases: about 23.7% of days lost (95 million days lost), and 23.9 billion EUR or 1.1% of the GNP in lost productivity and gross value added.
- USA, OSHA estimates that work-related musculoskeletal disorders account for over 600,000 injuries and illnesses (34 % of all lost workdays reported to Bureau of Labor Statistics). One out of every three dollars spent on workers' compensation. It is estimated that employers spend as much as $20 billion a year on direct costs for MSD-related workers' compensation, and up to 5X that much for indirect costs.
## Musculoskeletal Disease claims in Great Britain

| A4 | Task specific focal dystonia of the hand or forearm. For example, writer's cramp. | Prolonged periods of handwriting, typing or other repetitive movements of the fingers, hand or arm. |
| A5 | Subcutaneous cellulitis of the hand. | Manual labour causing severe or prolonged friction or pressure on the hand. For example, miners and road workers using picks and shovels. |
| A6 | Bursitis or subcutaneous cellulitis arising at or about the knee due to severe or prolonged external friction or pressure at or about the knee. For example, housemaid’s knee | Manual labour causing severe or prolonged external friction or pressure at or about the knee. For example, workers who kneel a lot. |
| A7 | Bursitis or subcutaneous cellulitis arising at or about the elbow due to severe or prolonged external friction or pressure at or about the elbow. | Manual labour causing severe or prolonged external friction or pressure at or about the elbow. For example, jobs involving continuous rubbing or pressure on the elbow. |
| A8 | Traumatic inflammation of the tendons of the hand or forearm, or of the associated tendon sheaths. Tenosynovitis. | Manual labour, or frequent or repeated movements of the hand or wrist. For example, routine assembly workers. |

New regulations for Prescribed Disease A14 Osteoarthritis of the knee came into force on the 13th July 2009.

Data from - Table IIDB02
Education & Training

Recognition

Risk factors
Symptoms
Diagnosis
Treatment
Controls

Prevention