

Adapted from the Ohio Bureau of Workers' Compensation [Ergonomics Best Practices for Public Employers](#)

| Situation  | Reason for concern   | Intervention/Best Practice  | Results (° per 200,000 hours worked)  |
|--|--|---|---|
| Working at a Video display terminal (VDT) workstation        | <ul style="list-style-type: none"> <li>• Risk of MSDs (tendonitis, tenosynovitis, carpal tunnel syndrome and back pain)</li> </ul> | Position VDT of workstation <ul style="list-style-type: none"> <li>• Monitor and Keyboard in front of user</li> <li>• Monitor at least 18 inches from the eyes</li> <li>• Thighs nearly parallel with the floor</li> <li>• Top of the monitor is at or slightly below eye level</li> <li>• Wrists are in a neutral posture (in-line with the forearm)</li> <li>• Feet are flat on the floor or footrest (if necessary)</li> <li>• Chairs with lumbar support, armrest, adjustable features, padding and easy to reach and operate controls</li> </ul> | None provided   |
| Cradling the telephone handset between the neck and shoulder | <ul style="list-style-type: none"> <li>• Risk of neck pain</li> </ul>  | Telephone Headsets  | Reduced musculoskeletal disorders (MSDs) <ul style="list-style-type: none"> <li>• Incident rate° from 12.4 to 4.4</li> <li>• Days lost from 45.6 days° to 8.1 days°</li> <li>• Restricted 16.6 days° to 0</li> <li>• Average risk factor score 26.3 to 13.8</li> </ul>                      |
| Lifting patients in health-care settings                     | <ul style="list-style-type: none"> <li>• Very high stress on the spine</li> <li>• High risk of back injuries</li> </ul>            | Powered patient-lifting devices <ul style="list-style-type: none"> <li>• Lift from laying to standing</li> <li>• Lift from Seating to standing position</li> </ul>  | Reduced MSDs <ul style="list-style-type: none"> <li>• Incident rate° from 21.3 to 11.9</li> <li>• Days lost from 127.2 days° to 79.0 days°</li> <li>• Restricted 96.6 days° to 87.0 days°</li> <li>• Turnover rate° 98.5 to 74.1</li> <li>• Average risk factor score 70 to 30.5</li> </ul> |

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|---|--|---|--|
| Providing patient care when a patient sleeps in beds lower to the ground to minimize injury if they fall out of the bed | <ul style="list-style-type: none"> <li>Stress and repetitive motion in the hands, wrists, elbows and shoulders</li> <li>Risk of back injury</li> </ul>           | High-low beds <ul style="list-style-type: none"> <li>electric motor to raise and lower bed</li> </ul> | Reduced MSDs <ul style="list-style-type: none"> <li>Incident rate° from 21.1 to 15.0</li> <li>Days lost from 72.7 days° to 20.1 days°</li> <li>Restricted 53.1 days° to 36.7 days°</li> <li>Turnover rate° 71.9 to 65.2</li> <li>Average risk factor score 31.6 to 21.4</li> </ul> |
| Pulling laundry from bins   | <ul style="list-style-type: none"> <li>Extreme trunk flexion and heavy lifting</li> <li>Risk of back pain</li> </ul>   | Spring-loaded bottoms<br>Retrofit existing bins   | Reduced MSDs <ul style="list-style-type: none"> <li>Average risk factor score 34.7 to 24</li> </ul>  |
| Opening and closing school bus doors  | <ul style="list-style-type: none"> <li>Risk of shoulder and back injuries</li> </ul>   | Retrofit automated, pneumatic door openers  | Reduced MSDs <ul style="list-style-type: none"> <li>Incident rate° from 2.8 to 0.9</li> <li>Days lost from 17.6 days° to 2.3 days°</li> <li>Restricted 17 days° to 2.8 days°</li> <li>Average risk factor score 38.5 to 25.5</li> </ul>  |
| Raising and lowering basketball backboards (School staff)   | <ul style="list-style-type: none"> <li>Awkward shoulder, wrist, elbow, and back postures</li> <li>Stress on the hand, wrist, elbow, shoulder and back</li> </ul> | Automated backboard winch   | Reduced MSDs <ul style="list-style-type: none"> <li>Average risk factor score 23 to 11</li> </ul>  |
| Moving gymnasium bleachers (School staff)   | <ul style="list-style-type: none"> <li>Risk of low back pain</li> </ul>  | Automated bleachers   | Reduced MSDs <ul style="list-style-type: none"> <li>Average risk factor score 31.5 to 2.0</li> </ul>   |

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|---|---|--|--|
| Moving school furniture                           | <ul style="list-style-type: none"> <li>Risk of injury from repetitive heavy lifting</li> </ul>            | Dollies  | Reduced MSDs <ul style="list-style-type: none"> <li>Days lost from 27.5 days° to 20.3 days°</li> <li>Restricted 23 days° to 12.7 days°</li> </ul>  |
| Handling equipment and objects during maintenance | <ul style="list-style-type: none"> <li>High risk for back and shoulder injuries</li> </ul>                | Hoist  | Reduced MSDs <ul style="list-style-type: none"> <li>Incident rate° from 4 to 1.3</li> <li>Days lost from 13.5 days° to 5.3 days°</li> <li>Restricted 15.6 days° to 14 days°</li> <li>Average risk factor score 37.6 to 23.5</li> </ul> |
|   |   | Lift gates   | Reduced MSDs <ul style="list-style-type: none"> <li>Incident rate° from 20 to 0</li> <li>Days lost from 80.3 days° to 0</li> <li>Turnover rate° 622 to 73.4</li> <li>Average risk factor score 35 to 28</li> </ul>                     |
| Using a jackhammer                                | <ul style="list-style-type: none"> <li>Risk of MSDs in the hand, wrist, arm, shoulder and back</li> </ul> | Design features <ul style="list-style-type: none"> <li>Lighter in weight</li> <li>Low-vibration</li> </ul> | Reduced MSDs <ul style="list-style-type: none"> <li>Average risk factor score 67 to 35</li> </ul>  |