

Preventing Back and Shoulder Injuries

October 2016

Soft-tissue injuries are a leading cause of loss among school corporation personnel, second only to slips, trips and falls. Below is a snapshot of the two leading causes of injuries among the twenty-three school entities in the Workers Compensation Risk Management Group.

<u>Loss Cause</u>	<u>Dollar Loss</u>	<u>%</u>	<u>Total Claims</u>	<u>%</u>
Total Losses	\$6,434,930	100%	1,605	100%
Slips, Trips and Falls	\$3,345,699	52%	577	36%
<u>Ergonomic – Related</u>	<u>\$1,988,614</u>	<u>31%</u>	<u>312</u>	<u>19%</u>
Subtotals	\$5,334,313	83%	899	55%

Repetitive use and overuse, handling heavy or bulky loads, and lifting using awkward postures are major contributors to back and shoulder injuries. According to the Bureau of Labor Statistics' most recent data (2013), these types of injuries accounted for 380,600, or one-third, of lost workday cases.

School personnel perform a wide range of tasks on a daily basis. In order to reduce susceptibility to a back or shoulder injury, we must be aware of the risks and be able to assess the job at hand and plan the work in the safest manner possible.

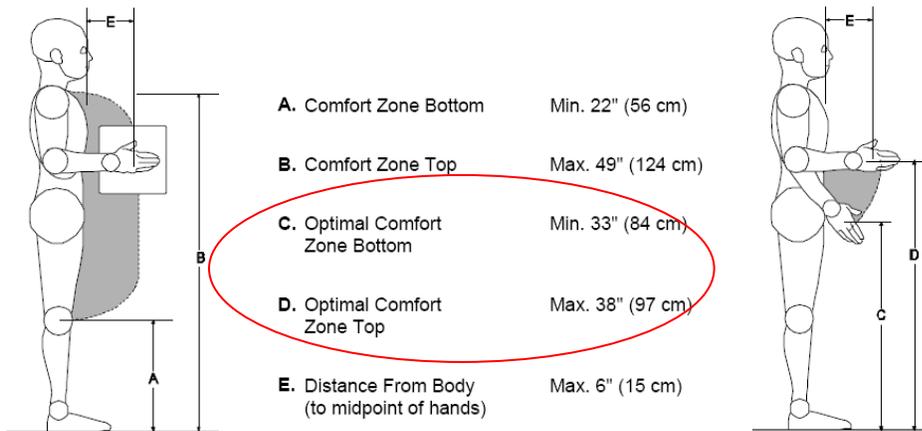
General Manual Material Handling

Use material handling equipment such as two-hand trucks, four-wheeled carts or dollies instead of your back. The extra 5 - 10 minutes to find and use a two-hand truck is well worth the time compared to sustaining an injury. Ask custodial staff to move desks and file cabinets as they have specialized equipment to move these items.

Eliminate the double handling of boxes and other items when possible. As an example, boxes of paper initially stored in loading dock areas are loaded from pallets to four-wheeled carts, offloaded to storage areas near classrooms and then retrieved for use in classrooms. Deliver supplies directly to classrooms when possible to eliminate multiple handling of heavy boxes.

Store heavy and often used items on middle shelves at waist height. This allows for picking and placing of products using a neutral body posture, which significantly decreases the risk of injury. When possible, set up and perform work that allows for neutral body postures (optimal bottom and top comfort zones 33" – 38"). Raise bottom shelf racks (min. 22" - Comfort Zone Bottom) to

reduce awkward back postures from bending. Lower the top shelves of rack storage (max. 49"- Comfort Zone Top) to reduce awkward shoulder and back postures when reaching.

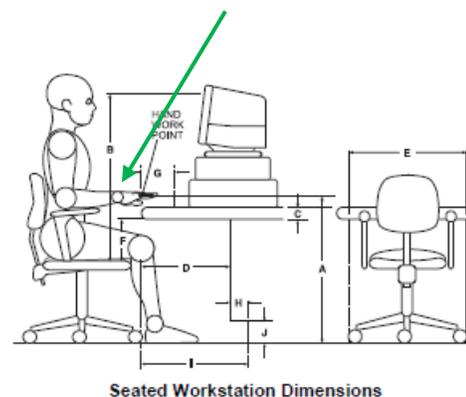


Office Ergonomics

Cumulative trauma disorders continue to increase among office workers who perform personal computer inputting tasks. Having performed hundreds of office workstation ergonomic assessments, we have found that simple and effective steps can be taken to reduce discomfort associated with this type of work.

The single, most effective improvement is adjusting the workstation chair to an adequate height in relationship to the work surface. Operators are required to bend their wrists, and extend their shoulders and elbows to reach keyboards, the mouse, calculators, phones, etc., when the chair is not at an appropriate height. These awkward postures lead to discomfort in the wrists, elbows, shoulders and neck. When properly adjusted (forearms parallel to floor) awkward wrist postures and contact stress with work surface edge are eliminated and reach requirements are reduced, all improving operator comfort.

A. Work Height – Hands				
Light Work	Adj. 22" – 31" (56 – 79 cm)	_____	Yes	No
Data Entry	Adj. 25" – 34" (63 – 87 cm)	_____	Yes	No
Precision Work	Adj. 27" – 36" (68 – 91 cm)	_____	Yes	No
B. Display Height				
	Pref. Adj. 27" – 33" (69 cm – 84 cm) Fixed: 27" (69 cm)	_____	Yes	No
C. Work Surface Thickness	Max. 2" (5 cm)	_____	Yes	No
D. Knee Space Depth	Min. 18" (46 cm)	_____	Yes	No
E. Knee Well Width	Pref. 24" (61 cm) Min. 21" (53 cm)	_____	Yes	No
F. Thigh Clearance	Min. 8" (20 cm)	_____	Yes	No
G. Distance to Work	1" – 4" (2.5 – 10 cm)	_____	Yes	No
H. Foot Space Depth	Min. 6" (15 cm)	_____	Yes	No
I. Distance to Rear of Foot Clearance	Min. 24" (61 cm)	_____	Yes	No
J. Foot Space Height	Min. 6" (15 cm)	_____	Yes	No

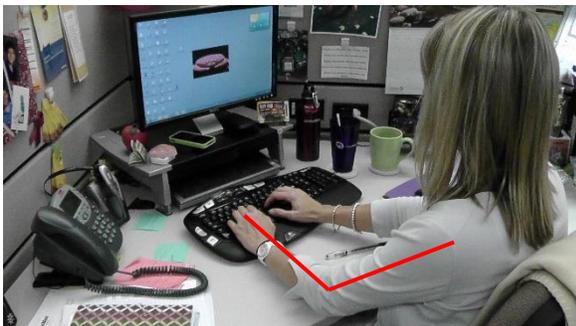




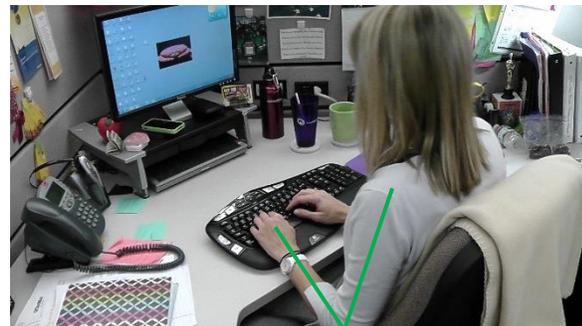
Chair too high – bent wrist & contact stress



Chair lowered – neutral wrist postures



Keyboard – extended shoulder/elbow



Keyboard location change – neutral shoulder/elbow posture

Would you like to self-assess your workstation? A computer workstation E-tool plus additional information on how to improve your workstation is available:

https://www.osha.gov/SLTC/etools/computerworkstations/checklist_evaluation.html

On-site ergonomic job task assessments are also available through the workers compensation Risk Management Group. Contact your safety consultant, Mike Reed, at Reed Environmental, Inc. 765.447.4446 (mike@reedenvironmental.com) to discuss.