


MSI PREVENTION BULLETIN 2

Warehouse Order Picker


Warehouse order pickers are exposed to many different musculoskeletal injury (MSI) risk factors. This bulletin provides information regarding the typical musculoskeletal issues faced by these workers and some possible risk control measures to either eliminate or minimize the MSI risk. This information is only a guideline, and the employer must still complete an MSI risk assessment to accurately determine the risks and appropriate control measures applicable to their worksite and work activities.

MSI Issue: Getting an Empty Pallet	Possible Risk Control Measures
<ul style="list-style-type: none">• Lifting an empty pallet from a high stack. Reaching overhead and lifting an awkward load.	<ul style="list-style-type: none">• Use a forklift to access pallets higher than shoulder level.• Store pallets no higher than shoulder level.• Train workers in body mechanics and lifting techniques.• Consider using lighter plastic pallets where applicable.• Use only pallets in good repair.
MSI Issue: Loading Boxes or Materials onto Pallets	Possible Risk Control Measures
<ul style="list-style-type: none">• Order pickers perform lifts at a high frequency. There is little variability in the tasks performed throughout the shift.• Obstacles due to objects placed on the floor.• Lifting from floor level.• Location of a load on racking. Lifting large loads from above shoulder level because of the slot location.	<ul style="list-style-type: none">• Expand task to include more tasks; add tasks that do not involve handling materials.• Examine the total weight handled per worker in a shift. Identify workers with high total weights and balance out load distribution.• Organize work to limit long shifts.• Remove obstacles in front of pallets.• Raise bottom racking and lower top racking to work within comfort range.• Identify large, heavy, and awkward loads and place them on racking with the best access (between knuckle and shoulder level).



MSI Issue: Loading Boxes or Materials onto Pallets (continued)	Possible Risk Control Measures
<ul style="list-style-type: none"> • Heavy, large, awkward, or shifting loads; or heavy loads not marked with weight.  <ul style="list-style-type: none"> • Reaching to the back of the pallet for items—not getting close to the loads. • Lifting items overhead because the height of the cube on the pallet is maximized. • Breaking down over-height pallet from suppliers. • Reaching across pallet with load. Using poor technique when assembling a pallet. • Working in freezer or cooler. • Sticky adhesive between boxes increases the pulling and pushing forces. • Boxed pallets—increased stooping into boxes. • Incentive pay linked to speed of pallet assembly leads to fast-paced high-risk manoeuvres including lifting and twisting. 	<ul style="list-style-type: none"> • Delist heavy products; bring in smaller products. • Use mechanical lifting devices to assist with lifting heavy, large, awkward or shifting loads. • Mark heavy objects with weight. • Use rollers or slanted racking to allow loads to slide to the front of the rack to reduce reaching. • Minimize reaching by lifting from the most suitable side of the pallet. • Try to provide access to more than one side of the pallet, especially for heavier items. • Use a pick-stick to pull items close before lifting. • Reduce the height of the pallet. • Pack heavier items earlier in the cube to prevent lifting heavy loads overhead. • Encourage suppliers to reduce pallet height. • Supply steps when breaking down over-height pallets. • Train workers in proper lifting techniques and body mechanics. Supervise workers to confirm use of good lifting techniques. • Rotate staff out of freezer or cooler. • Inform workers regarding appropriate clothing. • Ask suppliers to minimize the amount of sticky adhesive wrapping. • Fold down or cut out the sides on boxes. • Eliminate pay incentives that result in high-risk work activities.



MSI Issue: Wrapping Loads	Possible Risk Control Measures
<ul style="list-style-type: none"> • When pulling the plastic wrap, the worker's arms are held out in front of the body and overhead (sustained) while circling the pallet. • Walking or running in stooped position when circling the pallet with the cellophane wrap. • Workers must support the weight of large cellophane rolls. 	<ul style="list-style-type: none"> • Use automated wrapper. • Workers should pace themselves during the task. • Reduce the size and weight of plastic wrap being used. Smaller, lighter packages are easier to handle. • Use the minimum amount of wrap needed to secure the load.