Retail Storage: Reducing MSD Risks

Storage area setup and housekeeping can create musculoskeletal disorder (MSD) hazards, which can result in injury. What does your storage area look like?

Poor conditions:

1 Improper storage of items
- Items stacked on each other creates unstable loads and additional lifting
- Big and/or heavy items on high shelves creates awkward postures and lifting hazards

2 Items and equipment blocking access
- Increases reach and awkward postures
- Unused or rarely used items (e.g., out of season, overflow, discontinued items) blocking access to regularly used items increases lifting and handling

3 Debris/items on the floor
- Creates slip/trip hazards
- Limits movement, body positioning, and use of equipment (e.g., carts, ladders)
- Increases reach and awkward postures
- Awkward handling when lifting and carrying in tight spaces

Good conditions:

4 Organize items to reduce lifting hazards
- Weight, shape and size of items
- Frequency of accessing items; consider reorganizing throughout the year for overflow and seasonal items
- Refer to **'Store it off the Floor'** poster for more information

5 Provide suitable equipment for tasks
- Appropriate equipment can reduce exposure to hazards
- Choose equipment that fits the space and allows clearance to perform tasks safely
- Regularly inspect and maintain equipment to ensure good working condition

6 Clear path of travel
- Improves workflow to safely and efficiently access and move items
- Eliminates slip/trip hazards
- Minimizes reaching

Workplace Safety & Prevention Services®

MSD PREVENTION GUIDELINE FOR ONTARIO

CRE-MSD Centre of Research Expertise for the Prevention of Musculoskeletal Disorders

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Worker participation is essential in reducing MSD risk. Employees are the experts of their jobs, providing key insights into identifying hazards and developing effective solutions.

Build MSD prevention into current workplace programs and processes including:

- Health and safety,
- Purchasing/procurement,
- Housekeeping,
- Maintenance,
- Inventory management, etc.

Learn more about **Health & Safety Program Development: How to Include MSD Prevention**

Consider the effectiveness of solutions using the hierarchy of controls:

Most effective

Least effective

Elimination

- Replace ladder use with mobile access equipment (e.g., order pickers, work assist vehicles)
- Eliminate double handling of items

Substitution

- Reorganize inventory by frequency of use
- Relocate or remove excess inventory (e.g., external storage, drop shipping)

Engineering Controls

- Use mechanical aids (e.g., carts, lift assists, pallet lifters)
- Improve packaging and container designs (e.g., handles, smaller sizes)
- Optimize storage systems (e.g., flow racks, drawers, vertical modules)
  - Access items in the power zone (waist–elbow height) — refer to **'Store it off the Floor'** poster
- Ensure suitable carts (e.g., wheels, castor design and configuration)

Administrative Controls

- Provide training to increase MSD hazard awareness and knowledge of best practices and techniques to control hazards
- Support task rotation, cross-training, and provide adequate time per task
- Adjust staffing for workload demands
- Maintain clear, level floors

PPE

- If hand protection is required, choose the most form-fitting, and thin gloves with coated surfaces (e.g., rubber or leather)
- Wear low-heel, non-slip footwear

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