

Manual Materials Handling Hazard Identification Checklist

Using ESA's Manual Materials Handling Hazard Identification Checklist

This checklist is designed to help you identify design-related hazards associated with manual materials handling tasks that may increase the risk of employees developing musculoskeletal pain / discomfort, decrease performance and increase an organization's operational costs.

This checklist identifies whether certain, common hazards exist. It does not assess the level of risk, and this checklist alone should not be used to determine if changes should be implemented.

This checklist should be used with the full participation and input of the employee who performs the job/task in question. Observations alone are not enough, and it is not appropriate for the person(s) using the checklist to base decisions only on what they see or think about a job. When using the checklist you should always:

- Understand the task(s) the employee performs during the day, how long they perform the task for and/or how often;
- Ask employees what concerns they have about the design, set-up and organization of their workstation and work areas;
- Ask workers if they find specific MMH tasks to be physically demanding or if they have experienced pain or discomfort that they relate to performing MMH tasks;
- Consider individual needs based on body size, previous injury, etc.
- Observe tasks being done when practical; and,
- If you are unsure, ask the employee

Manual Materials Handling Hazard Identification Checklist

Analyst's Name:	Date:
Date:	Time:
Company:	Department:
Job Name:	
Brief Description of Specific MMH Task:	

If the answer to any of the following questions is "YES" further assessment may be required in order to better identify and prioritize hazards that need to be controlled to reduce the risk of MMH-related injury!

Red Flag Issues: **Yes No**

Does this task have a history of MMH-related injuries?		
Are any of the weights handled at this job more than 23 kg?		

Manual Materials Handling Hazard Identification Checklist

MMH Task Demands:	Yes	No
1. repetitive lifting / lowering (>2 per minute)		
2. forceful and / or repetitive pulling / pushing tasks		
3. throwing or catching of objects		
4. lifting object by two or more people		
5. frequent carrying of objects for >3 meters		
6. lifting / placing objects from under shelves or other obstructions		
7. lifting / placing objects over an obstruction or barrier		
8. carrying of objects up / down stairs or ladders		
9. very accurate placement of objects		
10. handling of fragile objects		

MMH Task Postures	Yes	No
1. lifting / lowering from or to below knee height		
2. handling objects above shoulder height		
3. lifting / lowering with arms fully extended		
4. bending and twisting while lifting, lowering, pushing, or pulling		
5. lifting / lowering objects with a pinch grip		
6. lifting / lowering while continuously bent over		
7. other awkward or difficult postures, i.e. lying on back or side, crouching in a small space, etc.		

Manual Materials Handling Hazard Identification Checklist

For lifting, lowering, carrying or holding is the load:	Yes	No
1. hard to hold onto (no handles, sharp edges, slippery, vibrating, etc.)		
2. large or bulky		
3. unbalanced or unstable		
4. hard or impossible to see over		
5. do workers handle heavy loads with one hand		
6. do workers have to carry loads up or down stairs		

For pushing or pulling carts, wagons etc. does:	Yes	No
1. the device have small or damaged wheels or wheel bearings in need of replacement / greasing		
2. it take a lot of effort to get the device moving		
3. it take a lot of effort to keep the device moving		
4. the load on the device prevent the worker from easily seeing the path of travel, resulting in awkward postures		
5. the worker have to pull or push the device up or down stairs or ramps		

Environmental Conditions:	Yes	No
1. is the task performed in cold conditions		
2. is the task performed in hot and/or humid conditions		
3. is the lighting in the work area poor		
4. are the surfaces slippery, uneven or cluttered		
5. are workers exposed to whole body vibration		

Manual Materials Handling Hazard Identification Checklist

Work organization factors	Yes	No
1. employees have not been trained to use good MMH techniques		
2. employees are unable to get assistance for MMH tasks if required		
3. are MMH tasks performed for extended periods (i.e. overtime)		
4. is the pace of MMH tasks machine controlled		
5. does the pace of MMH tasks vary greatly over a shift		
6. does the weight of objects handled vary during the shift		
7. are hoists or other material handling devices provided but not used		

Other factors:	Yes	No
1. have employees expressed concerns about the demands associated with the MMH tasks performed on this job		
2. are MMH tasks performed by older employees		
3. are MMH tasks performed by employees who have had recurring musculoskeletal injuries (e.g. back or shoulder)		
4. do MMH tasks require high levels of strength		
5. have workers reported pain or discomfort that they associate with performing MMH tasks		
6. do some workers avoid performing certain MMH tasks		
7. is it difficult to find workers who are capable of performing these MMH tasks		

Manual Materials Handling Hazard Identification Checklist

Remember if the answer to any of the checklist questions is "YES", further discussion should take place to determine whether the identified hazards are of concern.

What prompted you to conduct this analysis:

- Proactive review of task related MMH hazards:
- Response to worker concerns/comments:
- Frequency/number of accidents/injuries at this job:
- Other (please explain):
-
-

Does this job have a history of accidents/injuries related to MMH tasks:

Y N

If yes, over the past three years, how many accidents/injuries related to MMH tasks were recorded for this job?

Total # of MMH related accidents/injuries: _____

Which parts of the body have been affected:

- shoulder region: arm: upper back:
- lower back: neck region knee/leg:
- ankle/foot:

As with any checklist, ESA's MMH Hazard Identification Checklist **does not measure the level of the risk to employees**, it simply indicates that a hazard is present, even if the hazard presents a very small risk to workers

If you have any questions concerning how to use this checklist or how to control MMH hazards please give ESA a call at: (902) 431-6356

Manual Materials Handling Hazard Identification Checklist

Use this list of possible solutions as a starting point when trying to identify changes that will reduce or eliminate MMH hazards.

Weights greater than 23 kg?

Can the work area be redesigned to eliminate the need to lift the load (conveyor systems, drop chutes, surface for sliding, etc.)?

Can the load(s) being lifted be repacked to reduce the weight?

Can the container be redesigned to make it easier to lift (handles, smaller container, etc.)?

Can the load be lifted with a mechanical aid (hoist, lift table, etc.)?

MMH Task Demands

Can the frequency of lifting/lowering, pushing or pulling be reduced?

Can the work be reorganized to eliminate the need to throw/catch items?

Can the work place be reorganized to eliminate the need to carry items up or down stairs (elevator, move work area to different level)?

Can manual handling of fragile items be eliminated?

Can the location where the item is placed be changed to increase space or improve guides to reduce the need to accurately place objects?

Postures

Can the lift height be raised/lowered to above knee height or below shoulder height (platforms, adjustable height tables, shelving, etc.)?

Can parts, equipment, controls, tools, or material be moved closer to the worker to reduce reaching while lifting?

Can the work area be reorganized or carts/bins be redesigned to eliminate twisting (work area layout, route used when pushing/pulling, improved cart/bin design)?

If items are lifted with a pinch grip, can the handles be placed on the container?

Can work surfaces be modified to eliminate the need to maintain a bent over posture (platforms, adjustable height tables, etc.)?

Manual Materials Handling Hazard Identification Checklist

Can the work area size & space be increased to eliminate the need to lift while in other awkward postures (lying on back or side, crouching)?

Lifting, lowering, carrying, holding

Can the work area be redesigned to eliminate the need to carry the load(s) (conveyor systems, drop chutes, etc.)?

Can the container be redesigned to make it easier to carry (handles, smaller container, etc.)?

Can the work area be redesigned to reduce the distance of carry?

Pushing / Pulling

If pushing/pulling a cart/bin with wheels, are the wheels well-maintained (do they have flat spots or cracks, are they well greased)?

Can small wheels be replaced with larger wheels to reduce forces?

If floors are rough, cracked or have ridges can they be repaired or modified to make them smooth and easier to push/pull on?

Is there a need to use a motorized device to do the push/pull task?

Can the push/pull task be eliminated by better job or workplace organization?