



HEALTH AND SAFETY
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Guide on Manual Handling Risk Assessment in the Hospitality Sector

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Introduction

The hospitality sector covers a wide range of businesses including hotels, public houses and restaurants. There are approximately 135,000 people working in this industry and they are engaged in many different types of work activity. Some work practices in the sector require people to engage in a significant amount of physical activity.

Manual handling is a physical activity that takes place in every workplace. In some cases it does not pose a problem, however, it is important to be aware that manual handling is always a potential workplace hazard. Particular difficulties arise when the work activity requires people to handle very heavy loads or to operate in a confined space.

It is important to provide information to the hospitality sector on useful interventions to address the risk of injury due to manual handling. Traditionally, the emphasis has been on the need to provide manual handling instruction and training to people working in the sector. This training largely focuses on the adoption of an appropriate safe technique when completing a lifting activity. To date, little or no attention has been paid to reviewing or assessing the

manual handling work activities to determine whether they could be avoided or reduced.

This short, practical guide offers guidance on useful interventions that can be put in place to address the issue of injury due to manual handling in the hospitality sector. It aims to:

1. Outline the legislation underpinning the need to address manual handling activity in the workplace.
2. Outline the reasons why improvements should be made to avoid or reduce manual handling.
3. Explain in simple and practical terms the manual handling risk assessment process.
4. Illustrate through case studies how a manual handling risk assessment might be completed.

1. What Legislation Covers Manual Handling?

The Safety, Health and Welfare at Work (General Application) Regulations 2007 (SI No. 299 of 2007), Chapter 4 of Part 2, outline the requirements that must be adhered to in relation to manual handling.

The Regulations set out a framework to help employers avoid or reduce the risk of injuries as a result of manual handling activities. The basic principle is that where manual handling of loads involves a risk of injury (particularly to the back) the employer must take measures to avoid or reduce the need for such manual handling.

There are three key requirements:

- Avoidance of manual handling.
- Reduction of manual handling.
- Risk assessment of manual handling tasks.

At the outset the employer will need to carry out a full risk assessment of existing manual handling tasks before making an informed decision on which manual handling tasks need to be avoided or reduced. Employers must then assess their manual handling operations and take steps to avoid or reduce the risk of injury.

2. Why Should Improvements be made to Avoid or Reduce Manual Handling?

Manual handling is defined in Regulation 68 of the Safety, Health and Welfare at Work (General Application) Regulations 2007:

Manual Handling involves any transporting or supporting of a load by one or more employees, and includes lifting, putting down, pushing, pulling, carrying or moving a load, **which by reason** of its characteristics or unfavourable ergonomic conditions, **involves risk**, particularly of back injury, to employees.

An example of a characteristic of a load that involves risk would be a barrel that weighs 80kg. An example of an unfavourable ergonomic condition would be the physical strain involved in having to lift such a load.



Figure 1

Figure 1 shows such a load being handled manually. This manual handling activity needs to be addressed as part of the risk assessment process.

Back pain is often the result of injury and degeneration of an intervertebral disc. Degeneration is a process where wear and tear causes the disc to deteriorate.

Intervertebral discs sit between individual vertebrae in the spine. Each disc is a large round ligament that connects the vertebrae together. It is subjected to different stresses and acts as a shock absorber.

Bending over causes compression of the disc and may result in it bulging back towards the spinal canal and nerves. Twisting and bending together puts perhaps the greatest stress on the spine, especially the disc. Bending and twisting of the back are examples of unfavourable ergonomic conditions that increase the risk of back injury.

2. Why Should Improvements be Made to Avoid or Reduce Manual Handling? Continued

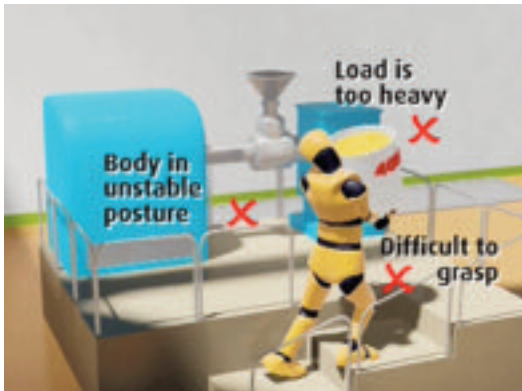


Figure 2

The characteristics of a load that can contribute to the risk of back injury include:

- Weight: too heavy.
- Size: too big.
- Shape: unwieldy and difficult to grasp.

Figure 2 illustrates an example of characteristics that present a risk of injury to any person handling that load.

Examples of unfavourable ergonomic conditions and how they contribute to back injury include:

- Gradual wear and tear caused by frequent or prolonged periods of manual handling activity.
- Increased wear and tear or sudden damage caused by intense or strenuous manual handling or awkward lifts.
- Bending or reaching forward in a manner that puts strain on the back.
- Movements that may result in injury to the lumbar spine during handling include repetitive back bending, pulling and lifting from overhead, forward bending and twisting.

It is important to have an understanding of the type of work that is carried out in your workplace. It is unlikely to take very long to identify which manual handling tasks need to be addressed as part of the risk assessment process.

3. What Is A Manual Handling Risk Assessment?

As a first step it is important to conduct a walkthrough of the workplace to put together a list of work activities that involve significant manual handling. During this walkthrough, consult with the people who do the job as they are best placed to explain how each task is carried out.

The five stages in a manual handling risk assessment process are explained below. (See also Appendix 1 for an example of a Manual Handling Risk Assessment Worksheet.)



Figure 3

Stage 1: Determine how the manual handling task is carried out

This stage involves collecting information on how the work activity is performed and identifying the key stages in the task. It should be a team effort involving consultation with people who normally do the job. The person carrying out the assessment should have a thorough practical understanding of the type of manual handling tasks being carried out.

For example, the worker in Figure 3 is required to carry bags of laundry along a hotel corridor and place them in the lift.

Stage 2: Collect all the technical details

It is important to collect good quality information about the task. Technical information may include the load's weight and size, the physical measurements of the work area, the number of manual lifts required to complete the task and general information on the work environment.

It is good practice to take photographs of the work task as it makes it easier to visualise potential hazards. All this data can be collected while observing the task and you can then sit down with others to write up the relevant information.

3. What Is A Manual Handling Risk Assessment? Continued

The information you collect at this stage will be critical to understanding whether there are manual handling risk factors that need attention.

Stage 3: Identify the problems or risk factors that need to be improved

Risk factors such as load characteristics and unfavourable ergonomic conditions can contribute to the risk of back injury (see Appendix 2 for examples). Schedule 3 to the 2007 General Application Regulations sets out these risk factors in detail. At this stage of the risk assessment process you need to determine if any of the risk factors detailed in the Schedule

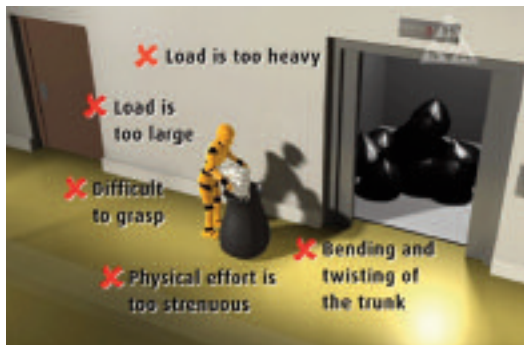


Figure 4

exist in the work task being assessed. The HSA has published guidance to explain all the risk factors in Schedule 3; it is important to make reference to this guidance.

For example, Figure 4 illustrates a number of identified risk factors:

- Load is too heavy.
- Load is difficult to grasp.
- Load is too large.
- Physical effort is too strenuous.
- Person is required to bend and twist.

Once the risk factors have been identified, it is necessary to investigate potential solutions.

Stage 4: Decide what improvements can be put in place

Efforts should be made to investigate whether the work activity can be organised to allow the use of mechanical or other means that avoid or reduce the need for the manual handling of loads. It is necessary to evaluate the controls that are feasible for each problem. The rationale for deciding on a control

3. What Is A Manual Handling Risk Assessment? Continued

measure must be clearly documented and should outline why other measures were not possible and how the suggested measure will avoid or reduce risk of injury. Consultation is necessary at this stage to ensure that all parties are working together to determine whether the recommended measures are practical, to solicit feedback on other possible controls and to ensure the effective implementation of the plan of action.

The introduction of any control measure, such as a mechanical aid or a new work layout, means the introduction of a new system of work. This new system of work must also be assessed to ensure that any new hazards are identified and controlled.

Finally, a plan of action must be put in place to identify what changes are planned, to allow people time to adjust to those changes and to communicate all the changes to all relevant personnel.

Stage 5: Review the effectiveness of the control measures or solution

Effectiveness is the degree to which the control measures have avoided or reduced the risk of injury. Their success will depend on the timely implementation of changes and the level of worker acceptance.

Figure 5 shows that a trolley has been introduced to reduce the manual handling tasks involved in the hotel linen example.



Figure 5

4. Manual Handling Risk Assessment Case Studies

This section demonstrates the application of the five-step manual handling risk assessment process using case studies specific to the hospitality sector. This is not an exhaustive list of work activities that may need to be assessed.

The case studies illustrate the importance of following a logical, step-by-step process, which will ensure that you:

- Fully understand how a work activity is completed.
- Are aware of the technical aspects to the activity, including weight, posture, environment etc.
- Clearly identify the potential risk factors in the activity.
- Make an informed decision based on the facts collected as to the best approach to take to avoid or reduce the manual handling tasks within the work activity.

The solutions in these case studies are not exhaustive and it may be feasible to develop an alternative response to meet the specific needs of your business without having a negative impact on the health of the people involved in the handling activity.

The case studies are presented in a matrix format so that it is clearly visible what information needs to be collected at each step in the risk assessment process.

4. Manual Handling Risk Assessment Handling Guests' Luggage

Stage 1: Task description: Handling guests' luggage

Porters carry guests' luggage from the hotel entrance to the bedrooms.

Stage 2: Collect all technical details

- The porter lifts the bags from the hotel lobby and manually transfers them to the hotel reception and bedrooms.
- Luggage weights vary; there is no indication of the weight of individual bags.
- Repetitive transfer of bags from hotel lobby to reception and then to bedroom.
- Porter has to vary posture continuously to move bags.



Stage 3: Identify the risk factors

- Activity too strenuous due to repetitive handling.
- Load too heavy or too large.
- Repetitive bending posture.
- Excessive lifting or carrying distances.

Stage 4: Identify the improvements to be put in place

- Source an appropriate trolley and transfer bags to trolley.
- Push trolley to reception area and transfer trolley to bedroom using the lift.
- Provide appropriate instruction on how to lift bags safely on to and of the trolley.

Stage 5: Review effectiveness of the solution



4. Manual Handling Risk Assessment Vacuum Cleaning

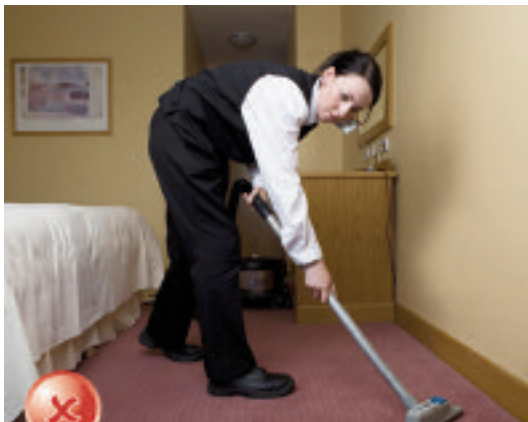
Stage 1: Task description: Vacuum Cleaning

Housekeeping staff complete vacuum cleaning work activity in the hotel bedroom.

Stage 2: Collect all technical details

- Staff member engages in awkward and repetitive bending postures.
- Poor suction in the vacuum.
- The vacuum hose has not been adjusted to the appropriate length.

Stage 3: Identify the risk factors

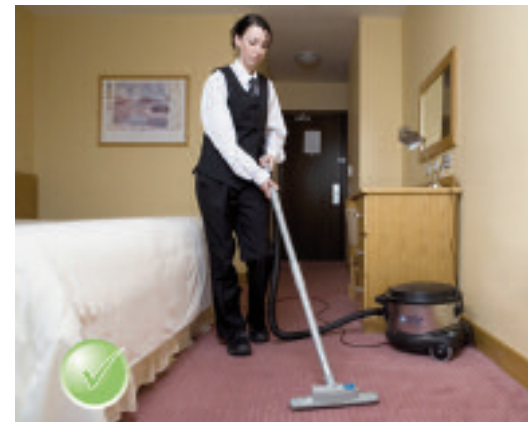


- Prevented from handling with good posture as the vacuum hose length is too short resulting in a bending posture.
- Over frequent physical effort.
- Excessive lowering distance.

Stage 4: Identify the improvements to be put in place

- Ensure that staff empty bags at regular intervals.
- Ensure that the vacuum hose is extended to the appropriate length to eliminate the need for unnecessary awkward bending posture.

Stage 5: Review effectiveness of the solution



4. Manual Handling Risk Assessment Transfer of dirty linen

Stage 1: Task description: Transfer of dirty linen

Housekeeping staff transfer dirty linen from hotel bedrooms to a laundry bag, carry the laundry bag to the lift and place the laundry bag in the lift.

Stage 2: Collect all technical details

- Weight of laundry bags varies.
- Linen has to be transferred over a distance to the lift.
- The lift is located at a distance from most of the bedrooms.
- Loose laundry bags present a trip hazard.



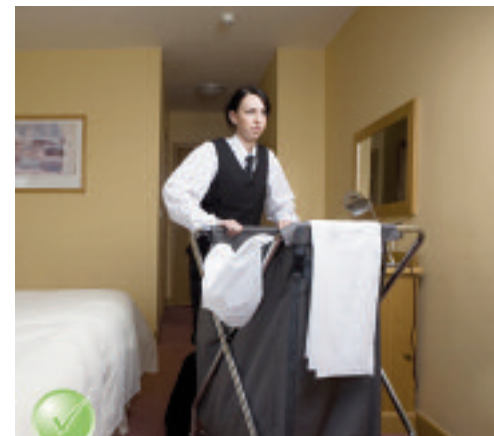
Stage 3: Identify the risk factors

- Full laundry bags are too heavy.
- Excessive lifting or carrying distances.
- Laundry bags difficult to grasp

Stage 4: Identify the improvements to be put in place

- Source a light trolley for the storage of dirty linen or source cleaning trolleys with an integrated storage area for dirty linen.
- Push full trolley to the lift for transfer to the laundry.

Stage 5: Review effectiveness of the solution



4. Manual Handling Risk Assessment

Handling of kegs of beer

Stage 1: Task description: Handling of kegs of beer

Bar staff manually lift a full keg of beer into position on top of another beer keg.

Stage 2: Collect all technical details

- Keg of beer weighs approximately 80kg.
- Staff member has to complete a very awkward lift in a confined space.
- Cellar design and space constraints require beer kegs to be stacked two high.

Stage 3: Identify the risk factors

- The load (beer keg) is too heavy and too large.



- The load is difficult to grasp.
- The physical effort is too strenuous.
- Excessive lifting distance.
- Load has to be lifted at a distance from the trunk.

Stage 4: Identify the improvements to be put in place

- Source a mechanical aid to transfer the beer kegs mechanically when stacking two high.
- Ensure staff are trained in correct use of this mechanical aid.
- Use keg trolley at all times to transfer kegs into the cellar.

Stage 5: Review effectiveness of the solution



4. Manual Handling Risk Assessment Handling bags of flour

Stage 1: Task description: Handling bags of flour

Kitchen staff member lifts bag of flour from the floor and transfers the contents into a wheelie bin for storage purposes.

Stage 2: Collect all technical details

- Weight of bag of flour is 30kg.
- Awkward posture when transferring contents of bag to the wheelie bin.
- Wheelie bin could move while completing transfer if brake is not engaged.

Stage 3: Identify the risk factors

- Load is too heavy.



- Load is unwieldy and difficult to grasp.
- Load is unstable with contents likely to shift.
- Activity involves bending activity.
- Excessive lifting distance from floor.

Stage 4: Identify the improvements to be put in place

- Source small bags of flour.
- Store new stock of small bags of flour at waist height in storage racking.

Stage 5: Review effectiveness of the solution



4. Manual Handling Risk Assessment Handling oil drums

Stage 1: Task description: Handling oil drums

Kitchen staff member lifts a large drum of oil and carries it into the kitchen area. The oil drum is then lifted into position to allow transfer of oil to the fryer.

Stage 2: Collect all technical details

- Weight of oil drum is 25kg.
- A number of manual lifts are involved when transferring content of oil drum to the fryer.

Stage 3: Identify the risk factors

- Load is too heavy.
- Load is unwieldy and difficult to grasp.



- Load is unstable with contents likely to shift.
- Load has to be lifted at a distance from the trunk.
- Prolonged physical effort.

Stage 4: Identify the improvements to be put in place

- Source small oil containers.
- Store small oil containers at waist height in storage racking.
- Transfer small oil containers to a trolley and push trolley to the kitchen.
- Transfer oil from small oil containers to the fryer.

Stage 5: Review effectiveness of the solution



4. Manual Handling Risk Assessment Handling a batch of beans

Stage 1: Task description: Handling a batch of beans

Kitchen staff member carries a batch of bean containers from the goods inward area and transfers the load into position on top shelf of storage racking.

Stage 2: Collect all technical details

- Total weight of batch of beans is 30kg.
- Awkward posture when transferring load to the storage racking.
- Very little room for movement during transfer of load to racking.

Stage 3: Identify the risk factors

- Load is too heavy.
- Prevented from handling with good posture.
- Activity is too strenuous as the load is too heavy



- Load has to be lifted at a distance from the trunk.
- Employee physically unsuited to the task.

Stage 4: Identify the improvements to be put in place

- Ensure that batch of beans is placed on a trolley in goods inward area.
- Push trolley to the dry stores area.
- Break down the load and transfer each container to the storage racking.
- Ensure that containers are stored at waist height where possible.

Stage 5: Review effectiveness of the solution



4. Manual Handling Risk Assessment

Handling hot meat

Stage 1: Task description: Handling hot meat

Kitchen staff member opens oven door and lifts out a full tray of cooked chickens and manually transfers the load from the oven to a workbench.

Stage 2: Collect all technical details

- Weight of full load of chickens is 20kg.
- The load is very hot and there is potential for a hot oil splash or spillage during transfer.
- Awkward posture when completing the manual transfer of the load.

Stage 3: Identify the risk factors

- Load is too heavy.
- Load is difficult to grasp.
- Load contents are likely to shift.
- Load has to be lifted at a distance from the trunk.



- Load cannot be lifted at a safe height.

Stage 4: Identify the improvements to be put in place

- Open oven door and allow time for cooling.
- Place trolley in position and place second tray on top of trolley.
- Use prong to transfer individual chickens from the oven to the new tray on the trolley.
- When complete, push trolley to appropriate work area.

Stage 5: Review effectiveness of the solution



Further Information

Management of Manual Handling in the Workplace at **www.hsa.ie**

Manual Handling Risk Assessment Case Studies at **www.hsa.ie**

Guidance on the Manual Handling of Loads Regulation at **www.hsa.ie**

APPENDIX 1: Manual Handling Risk Assessment Worksheet

Step 1: How is the task carried out?



Step 2: What are the technical details of the task?



Step 3: What are the problems/risks? (Refer to Schedule 3 in SI No. 299 of 2007.)



Step 4: What improvements can be made to avoid or reduce handling?



Step 5: Are the improvements effective?



APPENDIX 2: Examples of Risk Factors for Manual Handling of Loads

This checklist is a useful tool to help you identify risk factors as part of the risk assessment process. The information collected can then be used to determine what improvements should be put in place to avoid or reduce manual handling in a task.

Risk Factors	Yes	No	Comment
Is the load too heavy?			
Is the load too large?			
Is the load unwieldy or difficult to grasp?			
Is the load manipulated at a distance from the trunk?			
Is the load positioned in a manner requiring the bending or twisting of the trunk?			
Is the physical effort too strenuous?			
Is the physical effort only achieved by a twisting movement of the trunk?			
Is the required physical effort likely to result in a sudden movement of the load?			

Risk Factors	Yes	No	Comment
Is the physical effort made with the body in an unstable posture?			
Is there enough room, particularly vertically, to carry out the activity?			
Is the floor uneven?			
Does the place of work prevent handling of the load at a safe height or with good posture?			
Are there variations in the level of the floor?			
Is the floor or footrest unstable?			
Does the activity involve over frequent or over prolonged physical effort?			
Are there excessive lifting, lowering or carrying distances?			

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