Preventing back pain and other aches and pains to kitchen and food service staff

HSE information sheet

Introduction

This information sheet was produced by the Hospitality and Catering Industry Liaison Forum, which has members from trade and professional associations, unions and enforcement authorities. Members’ associations are free to reproduce and distribute this guidance to catering establishments. The guidance is issued by the Health and Safety Executive.

This guidance is aimed at employers of kitchen and food service staff, but provides useful information to employees and safety representatives. It identifies significant risk areas and offers practical examples of solutions you can apply in your workplace. Further HSE guidance is available on HSE’s website, on manual handling, and preventing back pain and other upper limb injuries. There are also links to tools that will help you assess the risk involved in lifting and repetitive tasks.

Back disorders are the most common form of ill health disorders at work. Musculoskeletal disorders (MSDs) include problems, such as lower back pain, joint injuries and repetitive strain injuries of various sorts. Upper limb disorders (ULDs) can affect the arms, fingers, wrists, shoulders and neck. In kitchens there are many tasks that, without proper controls, can cause back pain or upper limb disorders.

Lifting and carrying heavy items or pushing and pulling can be a major source of back pain. It also forces or repetitive activities and poor posture can be linked to upper limb injuries.

What the law says

The Manual Handling Operations Regulations 1992 require you to avoid any manual handling operations at work which involve a risk to health – so far as is reasonably practicable.

If it is not reasonably practicable to avoid any manual handling operations, you must carry out a manual handling risk assessment to identify how the risk is caused, so each factor can be addressed and measures taken to control the risk.

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Provision of information, instruction and training to staff are legal requirements.

Advice for employers

Key messages

- You can easily take action to prevent or minimise this type of injury.
- The preventive measures are cost effective.
- Involving staff is key to success.
- Training staff in proper lifting techniques and the use of handling aids and raising awareness of the risks will reduce the likelihood of injuries in future.
- Early detection and reporting of aches and pains is crucial.

Where to start (risk assessment)

You should start by considering the jobs carried out in the kitchen and the staff who work there. Look at the areas of work where there are most likely to be significant risks and prolonged exposure – examples of common risks and suggestions on how to reduce them are provided throughout this information sheet.

This information can form the basis of your risk assessment and you should concentrate on:

- the handling tasks workers are doing;
- the loads they are lifting;
- the environment they are working in;
- the individual capabilities of each worker;
- the positions they need to get in to do the job, eg twisting and stretching;
- the time spent on each task, eg regularity of lifting, break times.

Involve your staff, their representatives and safety representatives in the process, as they will be able to tell you how tasks are actually done, any problem areas and possible solutions. They may also have identified hazards or risks you are not aware of yet.
If you have more than five employees, record the findings of your risk assessment. You can find examples of risk assessments on the HSE website.

If you have fewer than five employees, you don’t have to write anything down but it is good practice to keep a record. An easy way to record your findings is to use the risk assessment template.

HSE has produced an assessment guide known as the MAC tool (manual handling assessment chart) to help you identify tasks with significant risks in lifting, carrying and team handling operations, and the ART tool (Assessing Repetitive Tasks tool) which does the same function for tasks that could lead to upper limb disorders.

Note that the MAC and ART tools are not appropriate for all manual handling jobs, eg those that involve pushing and pulling.

Avoid the risk

Your first priority should always be to avoid the risks entirely, if reasonably practicable. Examples of ways to avoid risks include:

- reorganising the layout of the kitchen to avoid unnecessary stretching and/or lifting;
- using a dishwashing machine;
- where a job may be a risk, look at having breaks or using job rotation to minimise the time each individual spends on it.

If the risk cannot be avoided

You can improve workplace conditions. For example:

- replace or repair uneven or slippery floors;
- provide trolley ramps at changes in floor level;
- keep all catering equipment well maintained;
- ensure shelving is not overloaded;
- install automatic doors if staff have to carry things through them frequently.

You can use mechanical aids to make it easier, including:

- four-wheeled trolleys (with adjustable height or lockable castors, if needed);
- large mixer bowls on wheeled dollies;
- sack trucks;
- providing false bottoms in deep sinks to reduce awkward bending at the waist.

You can redesign individual tasks. You should try to:

- reduce the amount of twisting, bending, stooping, stretching, pushing and pulling;
- reduce the number of times it is necessary to do the task (but without increasing the load each time);
- store heavy items on shelves at waist height;
- use team working for tasks such as moving a heavy pot.

You can make loads easier to handle. For example:

- buying cooking oil in easier-to-handle cardboard boxes with sturdy handles/grips;
- breaking down trays of A10 size cans before loading onto storage shelving;
- using smaller containers for cleaning chemicals and/or appropriate siphons or pumps to avoid handling bulk containers;
- putting heavy equipment such as chest freezers on (lockable) castors to make cleaning routines easier.

You can provide appropriate tools, equipment and protective clothing. For example:

Dishwashing

- Provide dishwashers.
- Provide rollers or conveyors.
- Provide trolleys to move large quantities of dishes.
- Provide cleaning tools with good grips when heavy duty cleaning is required.
- Provide appropriate gloves and non-slip shoes where required. Gloves should have extra grip on palms and fingertips to reduce the gripping force needed to handle greasy dishes.
- Provide foot rails or a step to shift body weight and reduce stress on employees’ lower back and legs, when standing for long periods.

Pot washing

- Provide pot-washing dishwashers if possible.
- Provide false bottoms in deep sinks to reduce awkward bending at the waist.
- Provide water jet sprays.

Food preparation

For chopping and cutting:

- provide utensils and knives with ergonomic handles designed for comfort and those that allow for power grips;
- make sure knives are in good condition and kept sharp to reduce the force required by the user;
- provide chopping machines for vegetables to reduce manual chopping or buy in pre-prepared vegetables;
- where practical, consider workbenches of different heights.
For mixers:
- make sure large mixers are placed at a height that allows access to the mixing bowl handles between knuckle and elbow height. This will reduce bending at the waist;
- if a mixer is on a raised platform, ensure that the platform is fixed firmly to the floor and can handle the weight of the mixer;
- provide dollies designed for mixing bowls to transport heavy bowls to other areas of the kitchen. These should have handles for pushing and be high enough that workers do not have to bend excessively to reach the bowl. Encourage two workers to lift and lower the bowl together, each holding the handle on one side.

For ovens and steamers:
- use ovens with side-hinged doors rather than bottom-hinged doors, as these allow easier access to items in the oven;
- where possible, use oven racks between waist and elbow height to minimise awkward posture.

For soup kettles and heavy pots:
- large soup kettles with extended handles make it easier to tip the kettle when pouring soup into smaller containers.

For storage areas:
- store areas should be as close to the working area as possible to reduce carrying distances;
- consider keeping food localised, eg installing chilled storage under working surfaces;
- buy bulk goods in smaller, easier to handle containers;
- consider the height and situation of shelving or racks.

For cleaning:
- provide long-handled brushes where reaching is required;
- provide cleaning tools that have soft rubber-like handles to reduce gripping force;
- provide a platform of adequate size to minimise excessive reaching.

Removing waste
Waste removal will involve lifting heavy rubbish bags, which carries the risk of forceful exertion:
- provide smaller refuse bags;
- put up signs near bins to remind staff not to overfill them.

Thermal comfort

Heat and humidity
High temperatures and humidity can affect the health and comfort of kitchen staff and contribute to heat stress. Reduce the risks by:
- providing good ventilation systems and maintaining air quality by regular cleaning and maintenance of cooker hoods and fume extraction/ventilation systems;
- installing air conditioning, or using fans to increase airflow;
- educating workers on the symptoms of heat stress;
- providing cool water or soft (non-fizzy) drinks for employees and instructing them to drink small amounts frequently during and after work;
- providing rest breaks in a cool place;
- ensuring employees’ clothing and footwear is suitable for working in a kitchen environment, eg slip-resistant footwear and clothing that is not restrictive.

Working in the cold
Kitchen workers may be exposed to cold if they store or retrieve food supplies from large walk-in freezers. Cold temperatures can increase the risk of muscle strain and loss of manual dexterity. Reduce the risks by providing:
- protective clothing, such as thermal gloves and jackets where appropriate;
- sufficient and suitable breaks to regain warmth.

Further information on thermal comfort and heat stress can be found on HSE’s temperature website (www.hse.gov.uk/temperature) and in Heat stress in the workplace.

Individual capability
You will need to consider an individual’s physical capability to do a particular task, paying attention to:
- the age and size of an individual;
- the pace and intensity of the work – if the pace is too high, this can increase the risk of injury through fatigue and can be stressful for that individual;
- those who have existing health issues or a physical weakness;
- pregnant workers – who have increased risks of postural problems, limitations of ability, fatigue and heat stress. Additional information on risk assessment for new and expectant mothers can be found on the HSE website.
Training

Train, inform and supervise staff (including agency workers) on important points such as:

- the risks associated with manual handling and repetitive tasks involving twisting and stretching, and how injuries can occur;
- correct use of any lifting aids or other equipment;
- reporting procedures and early detection of symptoms.

Remember to check that staff whose first language is not English have understood the training and information. This may mean using signs, other visual information, translation or interpretation.

Advice for employees

Key messages

- Take care to protect your own health and safety and that of your colleagues by using equipment properly, wearing protective clothing and following safe working practices.
- Co-operate with your employer in complying with their legal duties, by reporting health and safety issues promptly.

The following advice for staff covers the risks that are most likely to cause problems.

Dishwashing

Risks associated with dishwashing are:

- repeated lifting and handling of full dish racks or heavy dish trays and cutlery buckets;
- repetitive twisting and bending of workers’ backs at sinks or leaning over sinks;
- awkward reaching across sinks or work surfaces when manually cleaning dishes;
- grasping dishes by fingertips (pinch grips).

Reduce the risks:

- Larger kitchen areas may have rollers or conveyors, use these to push dish racks towards the dishwashing machines.
- Push trays along counters towards the dishwasher rather than lifting.
- Don’t overload dish racks. If you have to lift them, use more than one rack to spread the load.

- If you have to carry trays, grip them at the midpoint rather than the front edge, keeping the tray as close to your body as possible, but bearing in mind any risks of contact with hot surfaces.
- Reduce prolonged standing and use foot rails or a step to shift body weight and reduce stress on your lower back and legs when standing for long periods. From time to time, alternate the foot you have on the rail.
- Use a trolley to move large quantities of dishes.
- Use cleaning tools with good grips when heavy duty cleaning is required.
- Wear gloves that fit properly, with extra long cuffs, that are properly insulated to protect skin from hot water.
- Wear any appropriate protective clothing where your employer has decided it is necessary and provided it for use, eg non-slip shoes.
- Keep floors dry and free from contamination by cleaning up spills immediately (see Preventing slips and trips in kitchens and food service).

Pot washing

Most pot washing will be done manually in large deep sinks, although some employers may have automatic pot-washing machines. Risks associated with these tasks are:

- lifting heavy pots;
- awkward bending and twisting when leaning over sinks for long periods;
- repetitive wrist and shoulder movements when scrubbing pots;
- repetitive reaching into pots;
- forceful arm exertions when scrubbing pots.

Reduce the risks by:

- using water jet sprayers to remove baked-on food and avoid the need to hold the pot under the tap;
- using false bottoms provided by your employer in deep sinks to reduce awkward bending at the waist;
- using foot rails to shift body weight and reduce stress on workers’ legs and lower back when standing for long periods;
- using your arms for support;
- resting your free arm on the surface of the pot to reduce the gripping force needed to hold it securely;
- placing your free hand on the side of a soup kettle to support your upper body and reduce stress on your lower back;
- keeping items close to your body;
- moving large diameter pots as close as possible to the front of the sink and rotating them during washing to reduce reaching across the pot;
- using long-handled cleaning brushes to prevent awkward reaching into soup kettles or pots;
■ using strong-bristled brushes for scrubbing to remove baked-on food stuck to pots. Strong-bristled brushes help reduce the amount of force required;
■ wearing any appropriate protective clothing your employer has provided, eg non-slip shoes;
■ wearing the gloves provided by your employer. These should fit properly, have extra long cuffs and be properly insulated to protect skin from hot water. Gloves should also have extra grip on the palms and fingertips to reduce the gripping force needed to handle greasy pots;
■ keep floors dry and free from contamination by cleaning up spills immediately.

Lift and carry pots safely

When lifting and carrying:
■ try to assess the weight of a pot before lifting it;
■ use any relevant lifting or moving aid, eg a trolley;
■ keep pots close to your body when lifting and bend your knees rather than bending your back;
■ point your toes in the direction you are reaching to avoid twisting your back;
■ avoid unnecessarily lifting large pots with water in them;
■ take extra care in looking for slip and trip hazards when carrying pots.

Preparing food

The risks may include all or some of the following:
■ repetitive motion of the hands, wrists and shoulders;
■ forceful lifting or carrying of heavy bowls or pots;
■ awkward bending and twisting of the back;
■ awkward reaching.

Reduce the risks:

Chopping and cutting
■ Make sure knives are in good condition and kept sharp to reduce the force required by the user.
■ Where possible, use chopping machines for vegetables to reduce manual chopping.

Mixers
■ Use dollies designed for mixing bowls to transport heavy bowls to other areas of the kitchen.

Ovens and steamers
■ Where possible, use oven racks between waist and elbow height to minimise awkward posture.

Soup kettles and heavy pots
■ If moving heavy soup kettles/pots is unavoidable, two workers should move them.

Storage

Dishes, pots and food will all be stored on shelves in the kitchen in dry storage or cold storage areas.

Risks associated with storage are:
■ forceful lifting of heavy items;
■ repetitive and awkward reaching or bending to either higher or lower shelves.

Reduce the risks by:
■ using lifting aids such as trolleys or carts to move dishes or foods into storage areas;
■ arranging the storage area so that heavy items are easier to deal with, eg not up high or down low.

For stores areas:
■ label areas to make it easy to locate items;
■ store frequently used, heavier items within easy reach, ie between knuckle and elbow height (see Manual handling at work: A brief guide);
■ store frequently used lighter items between elbow and shoulder height;
■ store infrequently used heavy items on lower shelves;
■ store infrequently used lighter items on lower shelves;
■ keep storage areas clear and free from obstructions;
■ storage should take account of manual handling needs, eg allow enough space to use mechanical aids;
■ use adjustable-height handling aids during shelf stacking and stocktaking.

Cleaning

Cleaning tasks in the kitchen will involve scrubbing the kitchen and dish areas and sanitising.

Risks associated with these tasks are:
■ forceful exertions;
■ awkward shoulder or back postures;
■ cuts, bruises, pressure injuries and sore skin.
Reduce the risks by:

- using long-handled brushes where reaching is required;
- choosing cleaning tools that have soft rubber-like handles to reduce gripping force;
- when cleaning items that are higher than shoulder level, using a platform of adequate size to minimise excessive reaching. Keep both feet flat on the platform at all times;
- when cleaning items low to the ground, placing one knee on a padded surface and using your opposite hand for support to reduce the amount of weight on the knees;
- alternatively, sitting on a low stool while cleaning low areas;
- using power washers.

Removing waste

Waste removal will involve lifting heavy rubbish bags, which carries the risk of forceful exertion. Reduce the risks by:

- using smaller bags or bins to keep the weight of each bag down;
- mounting waste bins on wheels for easy movement.

Further information

Assessment of repetitive tasks: ART tool Leaflet

Getting to grips with manual handling: A short guide

Heat stress in the workplace: What you need to know as an employer General Information Sheet GEIS1

Manual handling assessment charts: MAC tool Leaflet

Preventing slips and trips in kitchens and food service Catering Information Sheet CAIS6(rev2)

HSE’s website provides information, as well as a number of free leaflets and information sheets, that will be useful to help manage risks and comply with legal requirements, particularly Health and safety made simple: The basics for your business www.hse.gov.uk/simple-health-safety/index.htm and the catering and hospitality web pages: www.hse.gov.uk/catering/index.htm. See also www.hse.gov.uk/msd/index.htm, www.hse.gov.uk/risk/casestudies and www.hse.gov.uk/temperature.

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This document contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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