



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

### Catering Information Sheet No 24

#### Introduction

Back pain and other aches arising from manual handling injuries are the most common type of occupational ill health in the UK. In kitchens there are many tasks that, without proper controls, can cause back pain or upper limb injuries that can affect hands, wrists, shoulders and neck.

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

This guidance provides information on significant risk areas to look for and offers practical examples of solutions that you can apply in your workplace. It lists other HSE guidance available on manual handling and preventing back pain.

It is aimed mainly at employers although it will also be useful to employees and safety representatives.

The key messages are:

- 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, use of handling aids and raising awareness of the risks will reduce the likelihood of injuries in the future;
- early detection and reporting of aches and pains is crucial.

#### Where to start

You should start by considering the jobs carried out in the kitchen and the staff who are working there. Look at the areas of work where there are most likely to be significant risks and prolonged exposure, common examples of which are shown in *Reducing the risks*.

This will form the basis of your manual handling risk assessment and you should concentrate on:

- the handling tasks they are doing;
- the loads they are lifting;
- the environment they are working in;
- the individual capabilities of each worker.

Involve your staff and safety representatives in the process, as they will be able to provide input on how tasks are done, any problem areas and possible solutions.

Keep a simple record of your findings, as this will form your risk assessment. Examples of a risk assessment form can be found on the HSE website and in the leaflet *Five steps to risk assessment* INDG163.

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. See *Further reading*.

Note that the MAC tool is not appropriate for all manual handling jobs, eg those that involve pushing and pulling, nor is it designed to assess risks from workplace upper limb disorders (further information on this can be found in free leaflet *Aching arms (or RSI) in small businesses* INDG171).

Further information on risk assessment, lifting and handling techniques can be found in free leaflet *Getting to grips with manual handling* INDG143.

#### Controlling the risks

Practical measures to control risks can often be simply a case of changing the way a job is performed. Your first priority should always be to avoid manual handling tasks if possible.

Examples of ways to avoid handling include:

- reorganising the layout of the kitchen to avoid unnecessary stretching and/or lifting;
- using a dishwashing machine.

#### *If the task cannot be avoided*

Can you use mechanical aids to make it easier? Such aids include:

- four-wheeled trolleys (with adjustable height or lockable castors, if needed);
- large mixer bowls on wheeled dollies;
- sack trucks.

Can you 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.

Can you 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 syphons or pumps to avoid handling bulk containers;
- putting heavy equipment such as chest freezers on (lockable) castors to make cleaning routines easier.

What can you do to improve the 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 frequently carry things through them.

## Other environmental factors

### Thermal comfort

High temperatures and humidity can affect the health and comfort of kitchen staff and contribute to heat stress.

Reduce the risks:

- provide good ventilation systems and maintain air quality by regular cleaning and maintenance of cooker hoods and fume extraction/ventilation systems;
- install air conditioning, or use fans to increase airflow;
- educate workers on the symptoms of heat stress;
- provide cool water or soft (non-fizzy) drinks for employees and instruct them to drink small amounts frequently during and after work;
- take rest breaks in a cool place;
- ensure employees' clothing and footwear is suitable for working in a kitchen environment, eg slip-resistant footwear and clothing that is not restrictive.

### Cold working

Kitchen workers may be exposed to cold working 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:

- provide protective clothing such as thermal gloves and jackets where appropriate;
- provide sufficient breaks to regain warmth.

Further information on thermal comfort and heat stress can be found on HSE's thermal website ([www.hse.gov.uk/temperature](http://www.hse.gov.uk/temperature)) and in *Heat stress in the workplace* GEIS1.

### Individual capability

You will need to consider an individual's physical capability to do a particular task, paying particular attention to:

- the age and size of an individual;
- the pace and intensity of the work, if pace is too high then 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 – 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 in *Health and safety of new and expectant mothers in the catering industry* CAIS19.

### Training

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

- the risks associated with manual handling and how injuries can occur;
- use of any lifting aids;
- safe lifting and handling techniques (see INDG143);
- 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.

### What the law says

The Manual Handling Operations Regulations 1992 require you to avoid the need for 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.

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

## Reducing the risks

The following advice for staff covers the risks that are most likely to be the main problems. However, check whether there are other risks specific to your own premises.

### 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:

- opt for dishwashing machines;
- larger kitchen areas may have rollers or conveyors, use these to push dish racks toward the dishwashing machines;
- push trays along counters towards the dishwasher rather than lifting;
- don't overload dish racks. If you are required 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.

### Manual washing

Reduce the risks:

- use false bottoms in deep sinks to reduce awkward bending at the waist;
- 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 and that are properly insulated to protect skin from hot water;

- gloves should have extra grip on palms and fingertips to reduce the gripping force needed to handle greasy dishes;
- wear slip-resistant footwear suitable for the working environment;
- keep floors dry and free from contamination by cleaning up spills immediately (see *Preventing slips and trips in kitchens and food service* CAIS6).

### 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:

- opt for pot-washing dishwashers if possible;
- use water jet sprayers to remove baked-on food and avoid the need to hold the pot under the tap;
- if staffing allows, frequently rotate workers washing pots to reduce their exposure;
- where pot size allows, use false bottoms in deep sinks to reduce awkward bending at the waist;
- use foot rails to shift body weight and reduce stress on workers' legs and lower back when standing for long periods;
- use your arms for support:
  - rest your free arm on the surface of the pot to reduce the gripping force needed to hold it securely;
  - place your free hand on the side of a soup kettle to support your upper body and reduce stress on your lower back;
- keep items close to your body:
  - when washing large diameter pots, move them as close as possible to the front of the sink and rotate them during washing to reduce reaching across the pot;
- use long-handled cleaning brushes to prevent awkward reaching into soup kettles or pots;
- use strong-bristled brushes for scrubbing to remove baked-on food stuck to pots. Strong-bristled brushes help reduce the amount of force required. Replace cleaning tools frequently so they work well;
- wear gloves that fit properly, have extra long cuffs and that are properly insulated to protect skin from hot water;

- gloves should have extra grip on palms and fingertips to reduce the gripping force needed to handle greasy pots;
- wear slip-resistant footwear;
- keep floors dry and free from contamination by cleaning up spills immediately (see CAIS6).

### ***Lift and carry pots safely***

When lifting and carrying:

- 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 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

- 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.
- Where possible, use chopping machines for vegetables to reduce manual chopping.
- Buy in pre-chopped vegetables.
- Where practical, consider workbenches of different heights.

Mixers

- Ensure that 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.
- Use 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 so workers do not have to bend over excessively to reach the bowl. Two workers should lift and lower the bowl, each holding the handle on one side.

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.

Soup kettles and heavy pots

- Large soup kettles with extended handles make it easier to tip the kettle when pouring soup into smaller containers.
- If moving heavy soup kettles/pots is unavoidable, then 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 these tasks are:

- forceful lifting of heavy items;
- repetitive and awkward reaching or bending to either higher or lower shelves.

Reduce the risks:

- 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;
- use lifting aids such as trolleys or carts to move dishes or foods into storage areas.

Stores areas:

- consider the height and siting of shelving or racks. Label areas to make it easy to locate items;
- store frequently used, heavier items within easy reach, ie between knuckle and elbow height (see INDG143);
- store frequently used lighter items between elbow and shoulder height;
- store infrequently used heavy items on lower shelves;
- store infrequently used lighter items on higher shelves;
- keep storage areas clear and free from obstructions;
- storage should take account of manual handling needs, eg allow enough space for use of mechanical aids;
- use adjustable-height handling aids during shelf stacking and stocktaking.

## Cleaning

Cleaning tasks in the kitchen will involve scrubbing 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:

- use long-handled brushes where reaching is required;
- choose cleaning tools that have soft rubber-like handles to reduce gripping force;
- when cleaning items that are higher than shoulder level, use 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, place one knee on a padded surface and use your opposite hand for support to reduce the amount of weight on the knees;
- alternatively, sit on a low stool while cleaning low areas;
- use power washers.

## Removing waste

Waste removal will involve lifting heavy rubbish bags.

Risk associated with the task:

- forceful exertion lifting waste bags.

Reduce the risks:

- put up signs near bins to remind staff not to overfill;
- use smaller bags or bins to keep the weight of each bag down;
- mount waste bins on wheels for easy movement.

## Further reading

Additional information can be found on HSE's website at: [www.hse.gov.uk/catering](http://www.hse.gov.uk/catering) and [www.hse.gov.uk/msd](http://www.hse.gov.uk/msd).

*Caring for cleaners: Guidance and case studies on how to prevent musculoskeletal disorders* HSG234 HSE Books 2003 ISBN 0 7176 2682 2

### HSE free leaflets

*Five steps to risk assessment* Leaflet INDG163(rev1) HSE Books 1998 (single copy free or priced packs of 10 ISBN 0 7176 1565 0)

MAC tool [www.hse.gov.uk/msd/mac/index.htm](http://www.hse.gov.uk/msd/mac/index.htm). Paper copies:

*Manual handling assessment charts* Leaflet INDG383 HSE Books 2003 (single copy free or priced packs of 10 ISBN 0 7176 2741 1)

*Aching arms (or RSI) in small businesses: Is ill health due to upper limb disorders a problem in your workplace?* Leaflet INDG171(rev1) HSE Books 2003 (single copy free or priced packs of 15 ISBN 0 7176 2600 8)

*Getting to grips with manual handling: A short guide* Leaflet INDG143(rev2) HSE Books 2004 (single copy free or priced packs of 15 ISBN 0 7176 2828 0)

*Are you making the best use of lifting and handling aids?* Leaflet INDG398 HSE Books 2004 (single copy free or priced packs of 15 ISBN 0 7176 2900 7)

*Heat stress in the workplace: What you need to know as an employer* General Information Sheet GEIS1 HSE Books 2003

*Health and safety of new and expectant mothers in the catering industry* Catering Information Sheet CAIS19 HSE Books 2001

*Preventing slips and trips in kitchens and food service* Catering Information Sheet CAIS6(rev1) HSE Books 2005

*Safe use of cleaning chemicals in the hospitality industry* Catering Information Sheet CAIS22 HSE Books 2003

HSE acknowledges the Occupational Health and Safety Agency for Healthcare in British Columbia for some of the examples used in this guidance.

## Further information

This information sheet CAIS24 replaces CAIS13  
*Manual handling in the catering industry.*

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