



# Manual Handling in Kitchens

## **Out of the kitchen into the waiting room and back... how to prevent strain injuries in the kitchen**

**Back, shoulder, and arm strains are common in kitchen work.** In a recent survey of kitchen workers carried out by Sheffield University, 57.1% suffered from back pain, 34.7% had neck pain, 31.6% had knee pain, and 29.6% had pain in their right shoulder. Back and shoulder problems were more common in taller workers, back and knee problems were more common in workers who lifted a lot.

**The normal sink height of 90cm only suits the shortest 12% of women.**

**The best worktop depth is 60cm to reduce strains.**

**Traditional kitchens cause less strain than modern kitchens with centralised food delivery systems.**



## **Is anything especially risky?**

- The total weight handled, e.g. large food containers, sacks of stock.
- The greater the distance from your trunk to the weight you are lifting, e.g. carrying large trays, or hot pans.
- Any twisting, stooping or stretching when carrying heavy weights, e.g. at wash up sinks.
- Any pushing, pulling or dragging of heavy weights, e.g. tables and equipment.
- The position you are in when lifting; whether seated or standing, and how well supported your torso is or how safe (nonslip) the floor is.
- How often you carry out the operation each day.
- The design of the handles by which you grip things, so that they are slippery, have sharp edges, or are too hot to hold.
- Lifting and carrying very hot or very cold weights.
- Lifting and carrying large volumes of liquids which slop about.
- In two-person lifting, how well you are suited to lift together.

## **Heavy lifting**

The worst strains in the kitchen occur through lifting. All worktop cooker and sink designs and the sizes of containers commonly used



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Funded by Section 64 (Department of Health).  
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will lead to unacceptable lifting tasks (see table, based on the Manual Handling Regulations).

### But ‘no one is average’

Your hands should usually be about 70-85cm above the floor when doing heavy work, or 85-90cm for light work. However the best height depends on your build.

The ideal work surface height varies with the person and the task. For a woman of average height the worktop should be at 93cm and sink at 100.5cm to allow for comfortable work at the sink, but no-one is average. To give comfortable heights for 90% of women, there should be 12cm of adjustment in working heights at surfaces, or 15cm of adjustment at sinks. If the sinks and worktops are not adjustable, then the floor level must be. Different tasks may vary in optimal height, with tasks such as rolling pastry or peeling vegetables requiring a height 3cm lower than spreading butter, or chopping vegetables.

### Employers’ responsibilities

The Manual Handling Operations Regulations (1992) lay emphasis on the assessment and prevention of these risks – which means redesigning tasks, to avoid the need for dangerous or heavy lifting, where possible.

New and expectant mothers should have light duties, not requiring excessive physical exertion.



**By replacing a front-loading dishwasher with a top-loading one, the heavy job of loading and unloading can be greatly eased.**

### HSE guidelines for lifting and lowering at arm’s length

Lift at:	Men	Women
Full height	5kg	3kg
Shoulder height	10kg	7kg
Elbow height	15kg	10kg
Knuckle height	10kg	7kg
Mid lower leg	5kg	3kg

### Recommended worktop heights for standing work (in cms)

Men	Women	
100-110	95-105	Precision work
90-95	85-90	Light work
75-90	70-85	Heavier work

## Some Practical Suggestions

### Kettle with ball valve

The heavy and dangerous job of pouring hot water out of a large kettle is eliminated, by supplying the kettle with a ball valve, which can be opened, and the hot water released without moving the kettle.

### Handles on food containers

Food containers have been fitted with large handles angled inward. These containers are placed in thermal boxes and then set on a cart. A large funnel is used to simplify the filling process. This eliminates several heavy handling jobs.

### Divided floor grating and doormats

Heavy floor grates can often be divided into smaller parts that are easier to handle during cleaning etc. (At the time of new construction, be careful that they are not made too large.) In the same way, heavy doormats can also be divided.

### Top loading dishwasher

By replacing a front-loading dishwasher with a top-loading one (where the entire top lifts up), the heavy job of loading and unloading can be greatly eased.

### Moving the tray track

Moving and raising the tray track in over the warming line prevents workers from stretching as far as before, and reduces the risk of burns.

### Hooks for food container handles

The handles of large containers for serving food are often designed so they are depressed when not being used. As a result, they can be difficult to grasp, especially if the container is hot. With the help of two metal hooks, which can also function as removable handles, the handles on the containers can be lifted up.

### Conveyor belts

Specially designed conveyor belts can transport fried fish easily from an automatic fish fryer to a suitable handling height.

### Insert for wash-kitchen troughs

Some wash troughs and dishtubs are so deep that one must stand extremely bent over in order to



work. An insert, which raises the level of the bottom can make them shallower and easier to work with.

### **Vertically adjustable tank carts**

Large tank carts in industrial kitchens can be mounted on wheeled scissor tables. Vertically adjustable carts are currently being made and older carts can be fitted with the height-adjustment mechanism.

### **Kitchen counter with rollers**

A counter top with rollers between the stove and the sink makes it possible to move pans directly to the sink for emptying without heavy lifting.

### **Compensation**

If you have already been injured through manual handling in kitchen work, you may be able to obtain compensation through the Department for Work and Pensions (Industrial Injuries Disablement Benefit) and/or a

solicitor (damages). Damages claims require proof of negligence on the part of the employer. A general employer's duty of care means that your job should be designed to be safe.

Under the requirements of the Manual Handling Regulations, your employers will be negligent if they fail to carry out an assessment, or fail to act upon it if a risk is identified.

## **References**

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