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## Kitchens for the disabled

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### **The ambulant disabled kitchen**

About 11% of the UK population is ambulant disabled. Most of these are over 50 years old and have difficulty in moving and bending down. Many are infirm and therefore need a kitchen that is well planned for their needs and to prevent accidents happening.

#### **Planning**

It is generally easier if the dining table is within the cooking area to reduce the amount of walking. If possible, provide space also for an easy chair for relaxation.

Floors should be finished with non-slip but easy to clean materials. Avoid loose mats, steps and uneven surfaces.

Skirtings with coved corner are easier to keep clean than right-angled internal corners.

Plan the sink, preparation area and cooker in one unbroken sequence. The countertop may need to be lower than the standard +900 mm, but be aware that this may inhibit the use of under-counter appliances.

Windows, particularly behind counters, should be easy to open and clean. Remote control winding gear, espagnolette bolts, pulleys and drop rods all help with stiff and inaccessible windows.

Doors should be fitted with lever handles for those with arthritic hands.

## Services

Slow movers feel the cold and therefore need heating to be at least 18°C.

Good lighting is essential for safety and efficiency. Low light levels can cause fatigue and depression.

Socket outlets and switches should be positioned between +450 mm and +1200 mm above floor level.

Align light switches with door handles. Large rocker or tip switches need less pressure to operate.

The cords of ceiling switches can be fitted with large wooden rings for easier opening.

Door switches are useful for lighting the interiors of large cupboards or larders.

Electric plug tops are available with large integral handles, making plugging and unplugging easier and safer.

## Appliances

Sinks with integral drainers and tap holes avoid water spilling on to counter tops.

Single lever mixer taps are easier to operate, especially for those with arthritic hands, than taps/mixers with separate round handles.

Filling large pans with water can be difficult, so position the mixer at the corner of the bowl nearest the drainer where the pan can be filled from the draining area.

Waist-high ovens, refrigerators and dishwashers are best for those who cannot easily bend down. However, note that this arrangement will take up more space.

Ovens should have drop-down doors which provide a surface on which to rest hot dishes.

Electric hobs with a continuous flat surface are safer to use than individual electric or gas rings, except in the case of the blind where gas is preferred as it can be heard.

## Cabinets

Drawers, pull-out shelves and carousel trays are easier to use than fixed structures in base cupboards.

Wall storage, providing it is not too high, is useful as it reduces the need to bend down.

Open wall shelves are easier, but less dust-free, than wall cupboards with doors. Avoid wall storage in the corner of an 'L'-shaped worktop where it may be out of easy reach.

'D' handles for cabinet doors are easier to use than knobs.

For those who have difficulty walking, fix a 35 mm diameter grip rail along the front length of the worktop.

## Useful devices

Many small electric appliances are extremely useful for those with limited dexterity. These include blenders, mixers, knife sharpeners, carving knives and can openers.

Similarly, electric frying pans, deep fryers, slow cookers and toasters are often preferred, and can even replace the conventional cooker.

Aids for the elderly and disabled are available from specialist manufacturers such as:

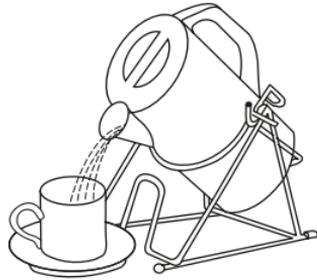
- Perching high chair with adjustable height legs
- Long-handled dustpan and brush
- 'Helping hand' device for extending reach with jaws activated by a trigger on the handle
- Kettle tipper – kettle or teapot held in tilting cradle
- Trays with non-slip finishes – also available with a raised handle for carrying with one hand
- Cutlery with easy-grip handles and angled heads



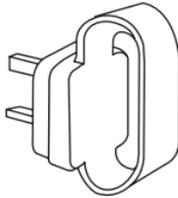
Long handled  
dust pan and brush



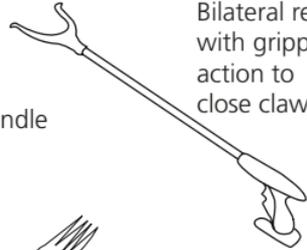
One hand tray with  
non-slip mat inside



Jug tipper for corded  
electric kettles



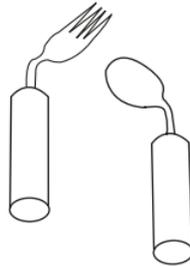
Plugtops with loop handle  
for easier removal



Bilateral reacher  
with gripping  
action to  
close claws



Perching stool with  
height adjustable legs



Light weight cutlery with thick  
handle and angled heads for those  
with restricted wrist movement

**Kitchen aids for the disabled**

**Sources:** *Kitchen Sense*  
*Spaces in the Home*  
Keep Able

## Wheelchair user's kitchen

About 2% of the UK population use wheelchairs. Of all disabled people the wheelchair user will have most difficulty using a standard kitchen, primarily because the worktop will be too high and there will be no knee space at the sink, preparation and cooking areas.

With limited upward and forward reach, high cupboards and backs of worktops are inaccessible.

### Wheelchair critical dimensions mm

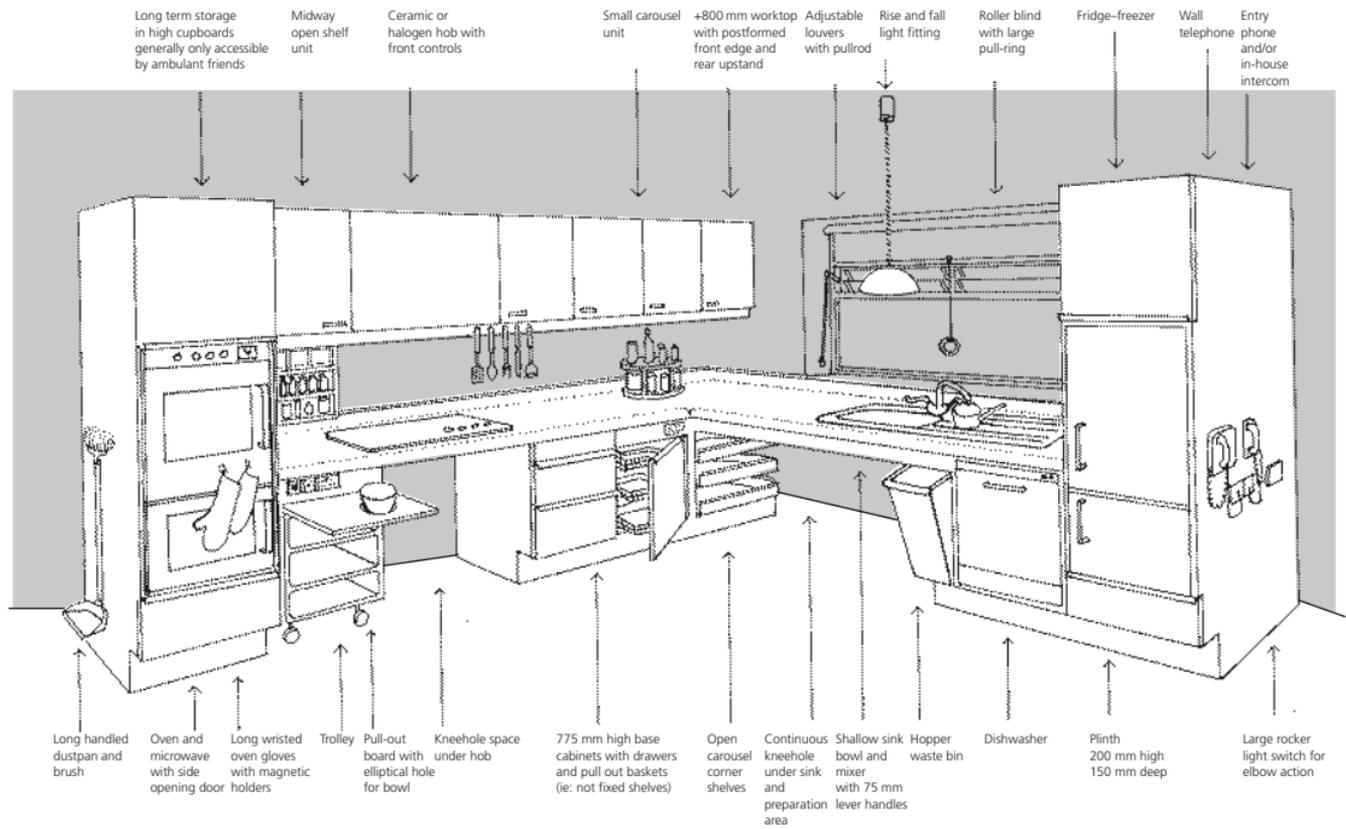
Standard wheelchair	=	1075 l × 630 w × 965 h
Top of arm rest	=	+710
Turning circle – indoor chair	=	1400
– standard chair	=	1500
– large chair	=	1700
Maximum upward reach	=	+1350
Maximum accessible shelf	=	+1300
Maximum downward reach	=	+400
Preferred worktop height	=	+800
Maximum worktop depth	=	600
Minimum knee space	=	750 w × 530 d × 660 h
Minimum cabinet toe recess (to accommodate foot rest)	=	180 d × 200 h

### Planning

The ideal kitchen for a wheelchair user will take up more space than usual because of the need for knee space with subsequent loss of base cupboards. Also the low height of storage cupboards will reduce the amount of storage space so more cabinets will be needed.

Entrance doors from outside must have a minimum clear opening of 775 mm.

Internal doors must have a minimal clear opening of 750 mm.



**Kitchen for a wheelchair user**

Note: This distance excludes the thickness of the stop on the latch side of the door and the thickness of the open door on the hinge side.

Where possible, remove any doors to leave a clear doorway.

The dining table should be near the cooking area. Where the dining room is separate, a trolley is more convenient than a serving hatch.

Keep the sink, preparation and cooking areas in one unbroken sequence, ideally in a 'U'- or 'L'-shaped configuration. The galley kitchen is the least satisfactory type of plan, as the counters must be a minimum of 1370 mm apart for wheelchair manoeuvrability.

Floors must be level and smooth.

Windows, particularly behind counters, must be operated with remote controls such as winding gear, sash hook on pole, pulleys and drop rods.

Heating levels should be set at 18°C – ideally 20°C, particularly where doors have been removed from doorways which may create more draughts.

## **Sinks**

Keep sinks away from corners.

The knee space should continue under the draining area as well as the preparation area alongside the bowl.

Recess the area 50 mm immediately under the counter at the sink bowl to accommodate for the chair armrests.

Sink bowls should be shallow – about 150 mm deep.

A single bowl with an integral drainer and the mixer positioned between the bowl and the drainer is the most convenient arrangement as it allows pans to be filled with water from the draining area.

For those with limited forward reach, remote controlled lever taps can be fitted to the front fascia of the sink worktop. Reduced height dishwashers are available to fit under the worktop, or in tall cabinets alongside.

## **Cookers**

The only viable option for the wheelchair user is to have a hob with a separate oven in a tall cupboard set +400 mm above FFL.

Select a hob with the control knobs in a row at the front.

Ovens should have side hung doors for easier wheelchair access to the oven. Wire shelves within the oven should have stops to prevent them being pulled out completely.

## **Refrigerators**

Refrigerators should not be too tall or they will be inaccessible, and should be set with the bottom at +400 mm.

A small freezing compartment at the top should be provided, unless there is a separate freezer.

## **Other useful devices**

A pull-out worktop at +660 mm will provide another work surface which is at a better height for a wheelchair user. This worktop could include an elliptical hole 190 mm wide × 170 mm deep, lined with flexible PVC to grip a mixing bowl.

Pull-out trolleys which will fit under worktops cannot only serve as trays, but can act as another work surface or be used for eating.

Small revolving carousel shelves, for frequently used jars and condiments, can sit on the worktop.

A wall telephone and entry phone fixed at about +1000 mm.

For other useful gadgets, see pp. 47 and 48 for the ambulant disabled kitchen.

## **Cabinets**

There are manufacturers who specialise in reduced height cabinets and appliances specifically for the wheelchair user, who also offer free advice, site surveys and drawings based on individual needs.

Base units should be fitted with drawers and pull-out baskets, rather than fixed shelves. Carousel shelves should be fitted to corner cupboards.

Variable height worktops, freestanding and wall mounted, supported on cantilevered white plastic coated steel frames are useful where kitchens are shared – as in sheltered housing or occupational therapy departments.

The height of the worktops can vary between +650 and 910 mm, operated either by a detachable winding handle or a switched electronic 24 v motor.

The standard worktop lengths are 1000 and 1500 mm, with or without sink units.

Other configurations can be manufactured to order with a maximum length of 3000 mm.

**Sources:** AKW Medi-care Ltd  
Keep Able  
N&C Phlexicare  
*Designing for the Disabled*