



# Creating accessible kitchens for the visually impaired

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## One person in 30 lives with visual impairment in the uk

More than 2 million people in the UK are living with sight loss that impacts their day-to-day life. Of this number approximately 360,000 are registered with their local authority as sight impaired or severely sight impaired, meaning they have severe and irreversible sight loss.

Visual impairment can affect anyone at any age for a number of different reasons. Older people are more likely to experience sight loss, with one in five people aged 75 and over, and one in two people aged 90 and over living with vision problems. Equally, about 2.5 per cent of people over the age of 75 are living with both visual impairment and dementia. On the other hand, there are almost 25,000 children with sight loss in the UK – equivalent to two in 1,000 children – and as many as half of these are likely to have other disabilities.

In addition, there are other groups in society that are more predisposed to visual impairment. For example, people from black and minority ethnic communities are at greater risk of some of the leading causes of sight loss and nearly two thirds of people with sight loss are women. Meanwhile, adults with learning disabilities are 10 times more likely to be visually impaired than the general population.

Most worrying, however, is the fact that the number of people in the UK with sight loss is predicted to rise significantly due to both the ageing population and an increasing prevalence of key underlying causes of visual impairment, such as obesity and diabetes. Indeed, it is forecast that more than 2,250,000 people in the UK will experience sight loss by 2020, with that number expected to be higher than 2,880,000 by 2030 and nearly 4,000,000 by 2050.

As a result, increased awareness of the personal impact of low vision and how occupational performance can be supported throughout the home is vital. In particular, it is critical that the home environment, especially the kitchen, is adapted to promote safety and support independence. This guide has been put together to help ensure it is exactly that which is happening.

# What is visual impairment?

A visual impairment can be defined as any limitation of one or more of the functions of the eye or visual system that impedes vision or visual field and acuity. It is possible to be registered as either sight impaired, which was previously known as “partially sighted”, or severely sight impaired, which was previously termed “blind”.

Visual impairment can occur for a variety of reasons. Beyond age-related macular degeneration, sight loss can be caused by what are considered more general neurological impairments that are not necessarily associated directly with eye conditions, such as stroke, motor neurone disease and Parkinson’s disease, or disorders that are specific to the eye, including retinitis pigmentosa, diabetic retinopathy, keratoconus and glaucoma.

Nevertheless, it is important to note that the definition of visual impairment is extremely broad and different kinds of visual field deficits can be experienced from one person to the next. Accordingly, it is essential to understand that a solution that works for one person will not necessarily help another and each individual case must be analysed to identify the specific needs of every end user or users.

# What challenges do those with visual impairment face?

While the extent of sight loss can vary vastly from one person to the next, people with visual impairment frequently find it more difficult to use the environment and space around them confidently. The kitchen, in particular, can be a complex space to negotiate if the room has not been installed or modified to cater for the user’s specific needs and usual routines. Typical challenges those with sight loss can experience include:

- Difficulties with orientation
- Poor depth perception
- Issues with locating items within a room, usually due to lack of definition
- A lack of general confidence due to fear to engage independently in activities or areas of occupational performance in the home





## Design that encourages wellbeing

Why is it important to adapt kitchens for the visually impaired?

Increasing safety during daily activities is the main goal when installing a kitchen for a client with sight loss. In particular, the risk of falls must be minimised with the right lighting and contrast. Besides the £25.1 million cost to the NHS every year of falls associated with visual impairment, the impact on the person is incredibly damaging – both physically and psychologically. One fall can strip them of the confidence to engage independently in activities or areas of occupational performance that they had previously enjoyed. The perceived risk becomes extremely great and the fear of accidents can lead to inactivity, social isolation and occupational deprivation, which can ultimately result in a negative impact on health and wellbeing. Modifying rooms in the home is about making positive changes to stop this from happening and encourage those with sight loss to engage in activities that are meaningful to them, such as cooking.





Nonetheless, it is important to remember that there is no one standard kitchen design for every person and the main point is to adapt the room in a way that supports the user's existing routine while increasing visual acuity. They know their home better than anyone else and it is essential to witness them in their current environment on a typical day and talk to them about the purpose of the room to identify the optimum solution. Above all, it is critical to keep things as logical as possible but make sure it is the client's logic and not your own.



**Adapting a kitchen for the visually impaired is not going to disadvantage somebody who is not. Equally, most of the tips in this guide will support the orientation of people with other conditions that affect cognitive ability as well as low vision.**

# Five key points when designing for the visually impaired

It is generally accepted that the following five elements can be used to form the basis of a design strategy that protects individuals with sight loss and allows them to remain as independent as possible for as long as possible.



1

## Education, education, education

People with sight loss often know that they need to improve their home but they do not always know how to do it. Therefore, it is important to provide accurate information and advice that allows them to make informed decisions on adaptations that solve problems while supporting their usual routine.

2

## Light the task, not the room

Good lighting will ensure safety and security, but instead of focusing on illuminating a whole room it is imperative instead to implement task-specific lighting. For example, bright lights underneath cupboards that illuminate the work surface where an activity is performed will be most effective. Indeed, halving the distance between the light and the task being performed can increase visual acuity fourfold. It is also important to use non-reflective materials to reduce glare.

3

## Contrast and colour

Correct contrast is absolutely crucial in enhancing a room for the visually impaired. In particular, using colours that reflect light and have a light reflective value (LRV) of greater than 30 will help to differentiate an object from its surroundings and support occupational performance. Furthermore, colour contrast is best achieved with contrasting shades of the same colour rather than different colours.

4

## De-clutter

Clutter and redundant objects or pieces of furniture should be removed to make the environment less challenging. There should be plenty of space to create safe and logical routes around the kitchen that support the person's usual routine and habits. Storage must be easy to access to prevent the user from having to search.

5

## Accessibility

Equipment and appliances should be simple to locate and only where the individual user would habitually expect to find them. Changing the layout of the kitchen would make it inaccessible, and increase risks and frustration. The use of tactile devices and controls or those with auditory feedback also enhance accessibility and ease of use.





## Choose the right equipment

A kitchen in a home needs to include various pieces of essential equipment and furniture and that is no different for those designed for the visually impaired. Expanding on the key elements mentioned previously, our tips look at the considerations that need to be explored in line with the user's needs to ensure the right products are installed when creating a space that is best suited to them.





## Layout

- Maintain the existing layout so that the user's typical routine can continue as normal
- Items used frequently need to be accessible at all times and in the areas where the user expects to find them
- Make sure circulation routes in the room are obstacle free
- Remove any trailing flexes or wires

# KITCHEN DESIGN SPECIFICATION GUIDANCE FOR THE VISUALLY IMPAIRED

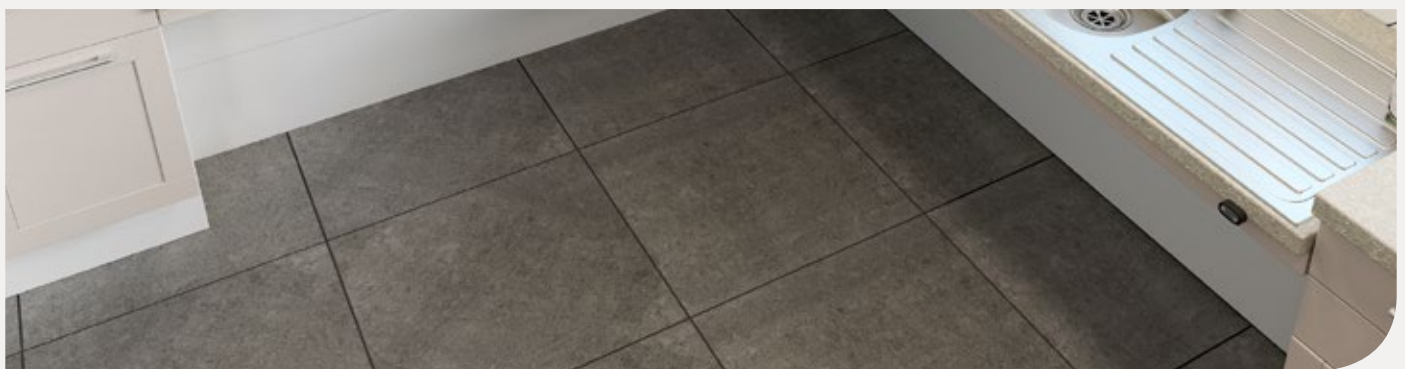
## Furniture

- Furniture placed against the walls will maximise the space in the kitchen, but bear in mind that this might not suit someone who is used to having a table or island in the centre of the room



## Oven

- Controls that are tactile or provide auditory feedback are a must
- Sliding or fold away doors can help to prevent burns and take up less space
- Lighting inside the oven is essential to help the user see what they are doing
- Silicone aids are available to create contrast and protection from the front edge of oven shelves and trays



## Flooring

- Clearly mark separate areas of the room with contrasting or textured flooring
- Flush access and level flooring throughout is ideal to reduce the risk of trips and falls
- Make sure it is clear where the floor ends and the wall starts with high contrast colours so the room boundaries are well defined
- Block colours are ideal and patterns are best avoided
- Non-reflective, matte flooring is best to eliminate reflection or glare from lighting

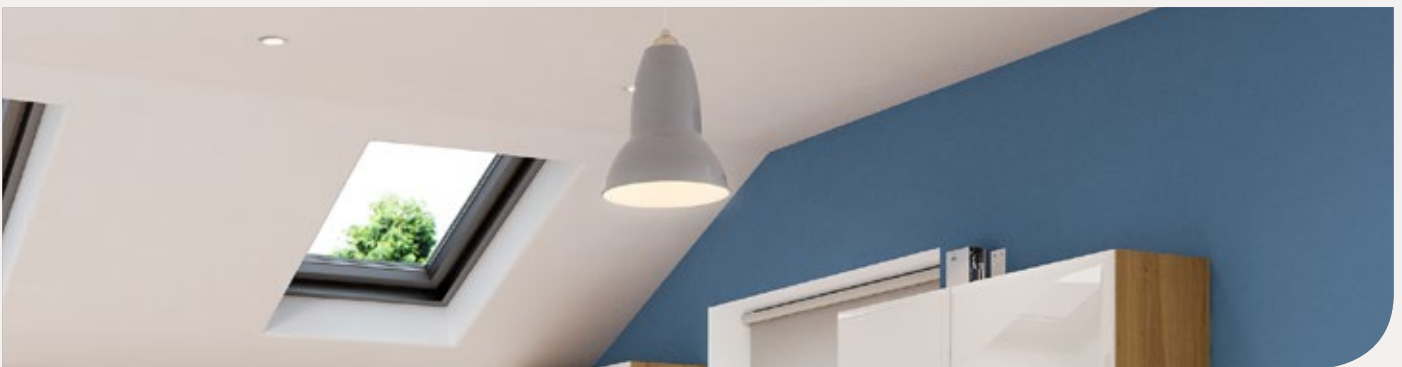


## Hob

- Induction hobs tend to provide the best visual feedback
- Gas tends to be more difficult to see the flame and to ignite but can cool more quickly with better 'in cooking' control
- Opt for devices that feature tactile controls or provide audio feedback

## Cupboards

- Question whether the cupboards need hinged opening doors – sliding or folding doors might work better depending on the space available
- The colour of the handles must contrast against the doors so they can be identified easily
- Avoid gloss or glass doors that can cause significant glare
- Position at a height that is suitable for the user
- Consider automatic internal lighting for cupboards and drawers



## Lighting

- Identify how much natural light enters the room at different times of day, paying particular attention to the times that the client typically uses in the kitchen, for what tasks and where specifically within the room
- Install task-specific lighting, such as separate down lighting that illuminates appliances, sink and food preparation areas, rather than focus on lighting the entire room
- Lighting controls that can be manually adjusted to support different tasks are a good idea

# KITCHEN DESIGN SPECIFICATION GUIDANCE FOR THE VISUALLY IMPAIRED

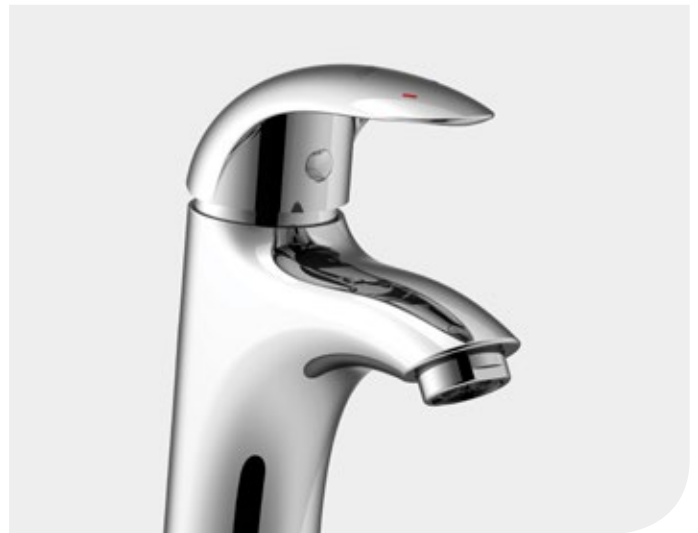
## Other white goods

- Contrast everything so the user can tell the difference between each item
- Position the fridge near to where food is prepared
- Place the dishwasher near the sink
- All appliances need to provide either physical or auditory feedback



## Taps

- Mixer taps may be easier to use depending on the user's requirements
- Avoid any exposed pipework that can get hot and cause burns
- Clearly marked taps are vital, with colour coding for hot and cold
- Thermostatically controlled taps are the safest option as they limit the temperature to a point that reduces the risk of scald injuries



## Accessories and small appliances

- Opt for accessories, such as tea towels, tea and sugar canisters, in colours that contrast against their surroundings to make them easier to identify. Make the kettle stand out against the wall behind it, for instance
- Find out what colours the user associates with certain tasks and apply contrasting shades on that basis
- Make sure the things that are used frequently are always at hand



## Doors

- Whether the door should open outwards or inwards depends on access and the preferences of each specific user, but bear in mind that if someone falls inside the room there is a risk that they could get stuck behind the door if it opens inwards
- ADM evidence suggests that pivoted/hinged doors should swing away from the direction of travel therefore consider whether door can open both ways
- Consider sliding or folding doors to maximise space on both sides



## Sockets and switches

- Make sure that all sockets and switches are easy to access where they are used and not covered by other objects
- Place sockets at a higher than usual level to suit the user
- Socket fascias and switches must be in a high contrast colour so that they can be distinguished from the wall itself
- Avoid any trailing flexes



## Sink and workbenches

- Contrasting the sink against the kitchen workbench will make it easier for the user to distinguish between them
- Distinctive textures on sideboards in different areas can help to distinguish between various parts of the kitchen and the tasks completed on them



## 10-POINT QUICK FIRE RECAP

- 1 Talk to the end user to identify not only their needs but their usual habits in the kitchen and at what times of day
- 2 Keep the layout of the kitchen and things within the room logical to the user and ensure everyday objects are where they expect to find them
- 3 Contrast is critical with an LRV value that is greater than 30 being the minimum target
- 4 Light the task, not the room
- 5 Avoid reflective surfaces
- 6 Confidence in the environment leads to maximising of engagement and independence
- 7 Keep it simple – there is no point installing adaptations for things that the client is never going to use
- 8 Remove clutter, unnecessary items of furniture and trailing wires
- 9 Be creative and be prepared to have to completely rethink traditional kitchen design.
- 10 Be flexible



## Summary

While this guide provides a comprehensive overview of the principles of designing kitchens for the visually impaired, it should not be used in place of but instead alongside input from the client. It is vital that installers take the time to speak to the individual users to get a definitive account of their routine and habits in the kitchen. By finding out exactly how people use their own space it becomes a lot simpler to decide what the most appropriate and helpful adaptations will be. Equally, it is important to work closely with an experienced adapted living solutions provider, such as AKW, for the best expert guidance on ensuring accessibility.

It is also critical to remember that modifying a kitchen is not just about highlighting where there are risks and trying to reduce them. It is also about supporting the visually impaired when taking those risks to help the user to achieve a normal routine in the room that allows them to complete tasks that are meaningful to them. Indeed, supporting positive risk taking can have a dramatic influence on the user's wellbeing and confidence that will make them more likely to engage in day-to-day activities that they had perhaps become fearful of attempting independently for a more positive and independent future in their home.

# Talk to the experts

Contact us today to book a consultation with a member of our 60-strong team of sales and surveying experts. They can tailor a solution to your specific resident, building and budget needs. You can request a visit at [www.akw-ltd.co.uk/contact-us](http://www.akw-ltd.co.uk/contact-us) or alternatively contact us using the details below.

Tel: 0800 078 7051 Email: [marketing@akw-ltd.co.uk](mailto:marketing@akw-ltd.co.uk) Fax: 01905 823297

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## About AKW

AKW are the leading designers and manufacturers of accessible bathroom and kitchen products having supplied this specialist market for over 25 years. We supply the majority of social landlords, local authorities and care and nursing home groups in the UK as well as customers internationally. We work closely with OTs and other healthcare professionals when designing our products to ensure they meet the specific needs of our end users. Our broad range of products include:

- specialist care showers (electric and mixer showers)
- wet room (level access showering) kits
- low level shower trays
- safety shower screens and curtains
- raised height sanitaryware with paddle flushes and seats designed for side transfer
- Geberit shower toilets
- lever taps
- grab rails
- Doc M packs
- accessible kitchens with optional ActivMotion<sup>®</sup> rise and fall units

### Adam Ferry Biography:

Adam Ferry is an Associate of The OT Service and Director of UK Therapy Services, independent companies specialising in providing high quality Occupational Therapy assessment, treatment and consultancy for the private, statutory and business sectors. He has spent more than 10 years as an Occupational Therapist, currently managing rehabilitation and acute service within the NHS. As an associate of The OT Service Adam organises the CPD programme for The OT Show. He works with a number of manufacturers and distributors of healthcare products in a consultancy capacity. Adam is a member of the British Association of Occupational Therapists and the Royal College of Occupational Therapists Specialist Section - Independent Practice as well as being registered with the Health and Care Professionals Council.

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