

AKW®
Life Made Better

CREATING ACCESSIBLE KITCHENS & BATHROOMS FOR PEOPLE WITH ARTHRITIS

In association with

Arthritis UK | The Occupational Therapy Service

ARTHRITIS IN THE UK

Arthritis is a progressive and often painful condition that affects joint mobility, grip strength, and endurance, and can significantly impact day-to-day activities. Adapting the home environment, especially kitchens and bathrooms, can help people living with arthritis remain safe, independent, and engaged in meaningful occupations which benefit their overall well-being.

Arthritis is not one single disease, it is a term that refers to the swelling, stiffness and pain in one or more joints which typically worsen with age and can have a considerable impact on a person's ability to complete tasks they have to, or need to do, and activities that bring meaning and purpose to their lives.

TYPES OF ARTHRITIS

Osteoarthritis and rheumatoid arthritis are the two most common types of arthritis diagnosed in the UK according to the NHS[2].

Osteoarthritis (OA) is caused by the mechanical demands on the joints and is often diagnosed later in life. The World Health Organization states: *"Osteoarthritis is one of the significant contributors to years lived with disability among musculoskeletal conditions"*[3] and recommends a package of interventions for rehabilitation, including the use of assistive products and environmental modification to promote independent living.

Rheumatoid arthritis (RA) is an autoimmune disease in which the body's own immune system attacks mainly the smaller joints and can be diagnosed at any age, it also has added symptoms of fatigue and often a feeling of general malaise.

Written in collaboration with The Occupational Therapy Service and Arthritis UK, this guide aims to equip occupational therapists with clinical strategies and design considerations, that are based on service-user insight and real-world applications.

10+ million

people in the UK are estimated to be living with arthritis



350,000

people are newly diagnosed with arthritis every year[1], approximately



2022 | 19% of the population

12.7 million aged 65+ had been diagnosed with a form of arthritis in the UK

2072 | 27% of the population

This is projected to rise to 22.1 million people aged 65+ in the UK over the next few decades

As there are several types of arthritis, it's important to know which one a person has to provide the most suitable adaptation solution. Other types of arthritis include:

+ Spondyloarthritis
+ Ankylosing spondylitis
+ Psoriatic arthritis
+ Juvenile idiopathic arthritis (JIA)
+ Gout and calcium crystal diseases



[1] The State of Musculoskeletal Health 2024, Arthritis UK Report
[2] https://www.nhs.uk/conditions/arthritis/
[3] https://www.who.int/news-room/fact-sheets/detail/osteoarthritis



CASE STUDY: LEWIS, 32

Lewis, 32 from Norfolk was diagnosed with psoriatic arthritis in his late twenties, with his mother also living with rheumatoid and psoriatic arthritis for most of her adult life. At the moment, the condition specifically affects the joints in his hands, shoulders and ankles, with his healthcare team expecting this to deteriorate and spread to other parts of his body in the future.

At work, his employers have made considered adaptations to make his office-based role more accessible, with an adjustable-height desk, orthopaedic chair, adjustable computer mouse and light-touch keyboard that requires less dexterity to operate. However, at home in his privately rented property, many of the fixtures and fittings in the bathroom and kitchen are a challenge for his dexterity, especially during painful flare ups.

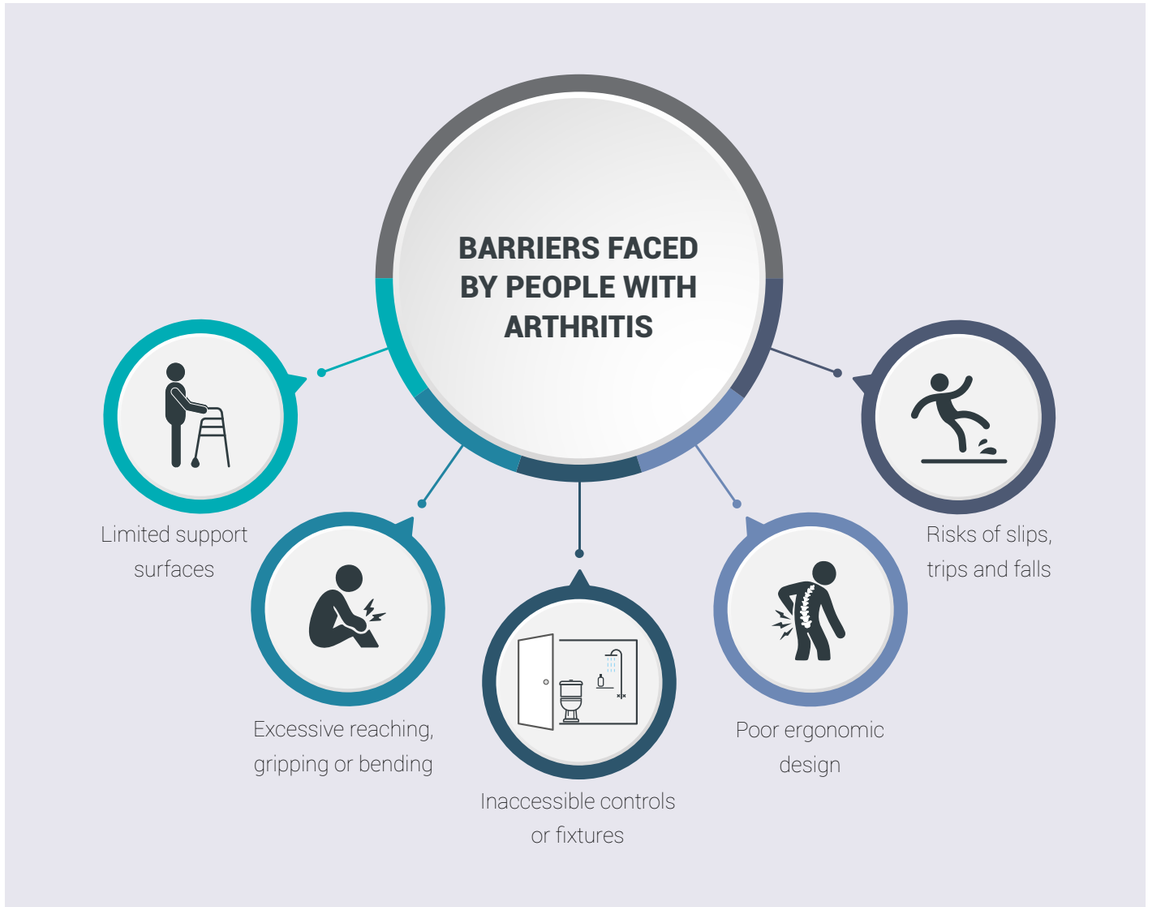
For example, the installed mixer shower has circular valve controls without levers which Lewis finds difficult to use as a strong grip is needed, and the action of opening and squeezing traditional shampoo or body wash bottles is at times virtually impossible. In the kitchen, chopping food, opening jars and packets, and accessing items in cupboards also presents a challenge and makes everyday tasks more of a struggle.

SPECIFYING THOUGHTFUL ADAPTATIONS

WHY ADAPT KITCHENS & BATHROOMS FOR SOMEONE WITH ARTHRITIS?

Kitchens and bathrooms are two of the most functionally demanding spaces in the home, and without thoughtful adaptation, these rooms can become sources of pain, stress and reduced occupational performance for people living with arthritis.

There are multiple barriers people with arthritis may face on a daily basis when carrying out tasks in these rooms, these include:



HOME ADAPTATION PRINCIPLES

Across all rooms - but particularly in kitchens and bathrooms - these **universal design principles** should be considered:

EASE OF ACCESS

+ Remove thresholds, where possible, to create a safe space to move around if a person needs to use a walking aid or wheelchair
+ Ensure clear, obstacle-free pathways; this could be as simple as re-arranging furniture or removing floor rugs or mats to reduce the risk of trips and falls
+ Add lever handle taps or D-shaped kitchen drawer or cabinet handles for easier operation if manual dexterity is reduced

SUPPORT & STABILITY

+ Strategically place grab rails to minimise the risk of falls, and as an aid for a person to steady themselves; the bathroom and toilet are a risk area where transfers or balance can be affected
+ Install slip-resistant flooring where a wet floor could be a potential slip hazard
+ Avoid glossy or reflective surfaces that reduce visual stability and the ability to navigate around a room

ERGONOMICS & JOINT PROTECTION

+ Raise or lower surfaces to prevent awkward bending or overreaching so the client can get closer for safety and comfort; the variable height of a rise and fall worktop is ideal as the surface height can be adjusted to suit different individuals and their abilities
+ Enable seated task performance when needed by using a shower seat in the bathroom or a perching stool or a chair with armrests in the kitchen
+ Provide resting points, a sturdy chair or perching stool for example, positioned in such a way that someone could sit or steady themselves when moving around

STORAGE & ORGANISATION

+ Pull-out shelves or rise and fall wall cupboards are easier to use than storage units with fixed shelving, which require a person to bend down or stretch to access
+ Position frequently used items at waist height and within easy reach, and in easy access containers or front-opening storage systems
+ Label or colour-code items for ease of access

MINIMISED EFFORT

+ Install appliances and fixtures with easy-to-use controls that help to reduce strain on arthritic hands, for example lever or infrared taps and soft-close drawers
+ Consider automated rise and fall kitchen worktops that can be raised/lowered electronically to a more comfortable height, or smart room lighting or motion-sensitive lights which are a 'hands-free' solution if using switches is difficult

KITCHENS: FUNCTIONAL CHALLENGES & ADAPTATION STRATEGIES

COMMON CHALLENGES:

WORKTOPS	EQUIPMENT	SINKS	TRANSPORT	CUPBOARDS
The surface height causes considerable difficulty if it is too high or too low.	Mobility equipment, such as a perching stool, can take up valuable space.	Sink height, depth and positioning can cause pain due to the reaching and bending needed.	Difficulty moving items to where they are needed due to inefficient design.	Inaccessible or difficult to access cupboards cause pain and imbalance.

CLINICAL RECOMMENDATIONS:

1. INACCESSIBLE WORKTOP HEIGHT

Use height-adjustable worktops, where sinks and hobs can be fitted, as these maximise accessibility, multi-user functioning, and future-proof the space to support someone with a degenerative condition.

2. DIFFICULTY ACCESSING STORAGE

Fit pull-down baskets, pull-out larders and drawers, or use solutions incorporating automated operation to bring the contents closer to you.

3. BENDING TO USE AN OVEN

Raise ovens to waist height and use heat-resistant pull-out tables to minimise the carrying or moving of hot items.

4. PAIN WHEN GRIPPING

Opt for D-handles which are easier to pull open compared to knobs, or cupboards that can be opened by pushing rather than pulling.

5. DIFFICULTY OPENING PACKAGING

Provide ergonomic, arthritis-friendly kitchenware, such as jar and can openers, and kettle tippers.

6. ACCESS TO SINKS & TAPS

Consider the person's physical proportions and how they will use the sink, and if they require single lever or touchless control taps to eliminate the need to grip. Also think about what they are washing, e.g. if they have a dishwasher, are smaller items put in this and does that impact how the task is completed?

7. FATIGUE

Design the space with seating/rest areas, alongside adjustable-height worktops, to support functioning whilst seated. Consider recess depths so the person can get close enough to worktops without needing to lean/bend, which can be an issue for wheelchair and ambulant users.



THINK ABOUT RECOMMENDING:

+ Pull-out ironing board which folds neatly away in a drawer when not in use
+ Pull-out heat-resistant drawer for easy and safe transfer of food from the oven
+ Slip-resistant flooring to minimise the risk of slips or falls
+ Anti-fatigue mats to reduce pressure on the feet, legs and back
+ Ergonomic kitchen utensils, for example: arthritis-friendly knives electric can openers, food processors with large buttons
+ Perching stools can be beneficial for a person with limited standing capability, providing a comfortable and supportive position while cooking, ironing or washing; folding options are available if space is limited





BATHROOMS: FUNCTIONAL CHALLENGES & ADAPTATION STRATEGIES

COMMON CHALLENGES:

BATHS People find them difficult to access.	**SINKS & BATHS** Low sinks and baths require crouching or overreaching.	**TAPS & CONTROLS** Users have difficulty with non-lever taps.	**TOILETS** They are usually too low and toilet frames are unpopular.
TOILET SEATS Difficult to lower onto. Become unstable due to impact from user.	**SPACE** The space allocated for bathrooms is typically too small.	**TRANSFERS** Movement to and from toilets, baths or showers can be difficult.	**FLOORING** This can create unsafe shower access or a risk of slipping.

CLINICAL RECOMMENDATIONS:

1. BATH ACCESS

Replace the bath with a level-access shower; if bathing is meaningful to the person consider bathing equipment, although this might not fully future-proof the space. Alternatively look at specialist bath options, such as a walk-in bath.

2. UNSAFE TRANSFERS

Use raised-height toilets, drop-down rails and grab rails. AKW research suggests that many people prefer fluted grab rails, as they feel these offer more grip. Consider the use of the AKW Rise & Fall Bidet which supports heights between 410-610mm.

3. TAP CONTROL

Install lever-operated or infrared sensor taps with clear hot/cold temperature indicators.

4. SHOWER CONTROLS

Specify a thermostatic care shower with easy-to-use lever operation, such as the AKW SmartCare Lever Electric Shower, which also includes features to support people with cognitive and/or visual impairment.

5. TOILET FLUSH & HYGIENE TASK DIFFICULTY

Use lever or paddle flushes instead of push buttons as these are easier to use for people with limited dexterity. Recommend bidets or wash/dry toilets with automated or easy-to-use controls that do not rely on gross motor skills.

6. SLIPPERY SURFACES

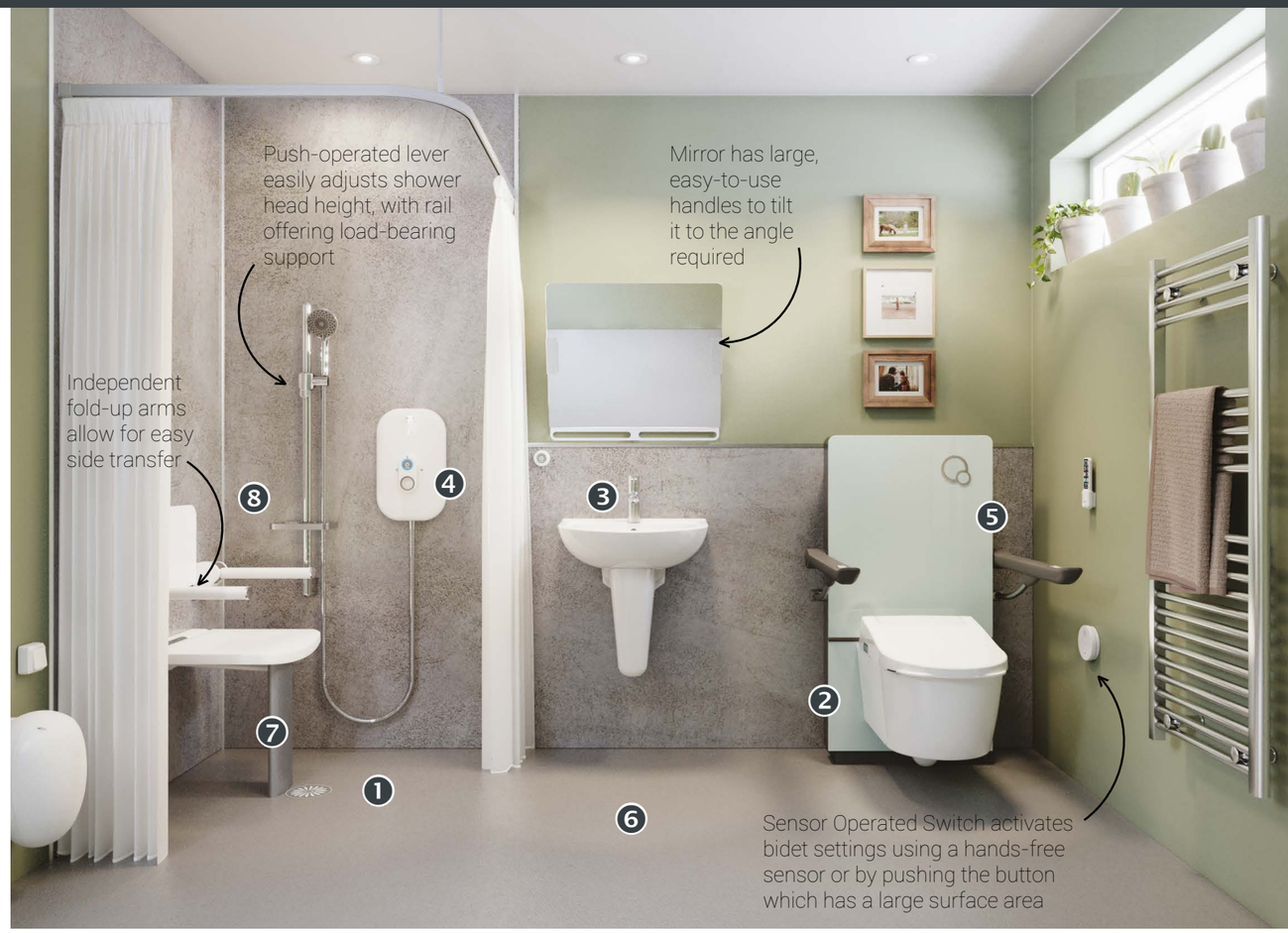
Lay vinyl flooring with a minimum R10 rating within domestic bathrooms to provide a slip-resistant and safe environment.

7. SHOWER SEATS

When using wall-mounted shower seats, consider the dimensions and cushioning. AKW research suggests that 4000 Series Shower Seats provide the greatest comfort for users with arthritis.

8. LIMITED REACH

Position items like toiletries, toilet roll holders and towels within easy reach.



ALSO CONSIDER RECOMMENDING:

+ Drop-down grab rails near the toilet and wash basin to provide additional support
+ Motion-sensor lighting for safe night time use that will turn on and off automatically



CLINICAL REASONING PROCESS

ASSESSMENT

- For the assessment to be client centred, there must be clear communication of the goals and/or what activities are meaningful to the person
- Apply and document a robust activity analysis that covers key elements such as fatigue, fine and gross motor skills, dynamic balance, vision, dexterity, grip strength and weight bearing (particularly through upper limbs during activity)
- Ensure familiarity with the specific arthritis diagnosis, in order to determine whether recommendations need to be future-proofed to take into account a deteriorating condition, and at what likely rate
- Consider the relationship between the person, their environment and their activities

RECOMMENDATION

- Find a balance between client goals, functional ability, and environmental limitations
- Recommend both short-term solutions, such as grab rails, and long-term changes, such as a full bathroom or kitchen adaptation
- Apply a robust evidence base, using knowledge of arthritis and established sources such as Arthritis UK
- Ensure knowledge and understanding of the marketplace in order to make recommendations that maximise the client's outcomes

FUNDING & SUPPORT

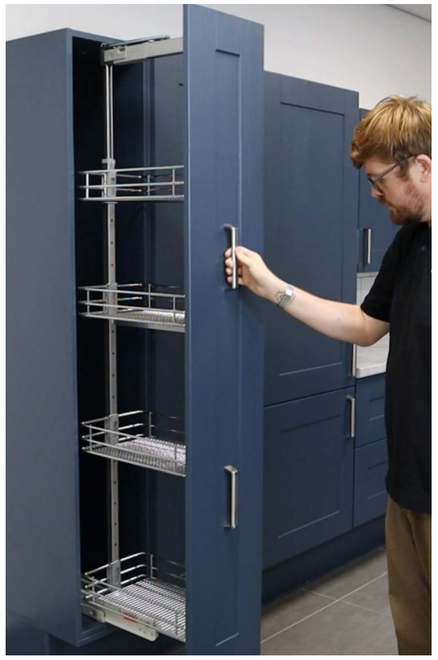
- Disabled Facilities Grant (DFG): For eligible home adaptations over £1,000 (a number of authorities apply discretion to allow for adaptations of more than £1,000 without going through the DFG process)
- For information on how eligibility is determined visit https://www.foundations.uk.com/guides/dfg-decisions/
- **Minor Works Grants:** May cover smaller changes, this could be in the form of grab rails or lever taps
- **Charities:** Arthritis UK, Independence at Home, and Turn2Us may offer support and guidance on other funding options
- **Self-Funding Advice:** Provide realistic cost estimates and prioritised adaptation plans; healthcare professionals working for a local authority should remember that the duty of care does not end if someone is not receiving financial support (e.g. through DFG), therefore consider how support and advocacy can be given for those clients



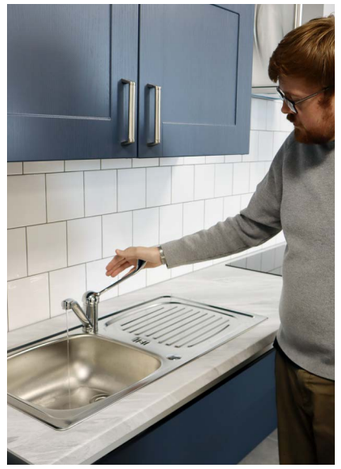
AKW PRODUCTS THAT SUPPORT INDEPENDENCE



With push button control, the height of an **ActivMotion Rise & Fall Worktop** is easily adjusted to suit the individual, making the kitchen accessible for ambulant or wheelchair users, and future-proofing the space to support people with degenerative arthritis.



Tall larder units with slide-out shelves bring the cupboard contents outwards at a comfortable height with access from both sides, making it easier for people to locate what they need.



Lever taps are an accessible, easy-to-use solution, with paddle lever handles that are designed to aid people with limited dexterity.



Pull-down baskets eliminate stretching or overreaching as they bring cupboard contents down and outwards to within easy reach.



Deep kitchen drawers offer increased access, especially for wheelchair users, with **D-handles** providing enough clearance to get a hand behind if strength is weakened.



AKW SmartCare Lever Electric Shower benefits from an easy-to-use lever handle, easily operated by finger, hand or fist; an optional care riser rail also doubles as a grab rail to minimise slip risks.



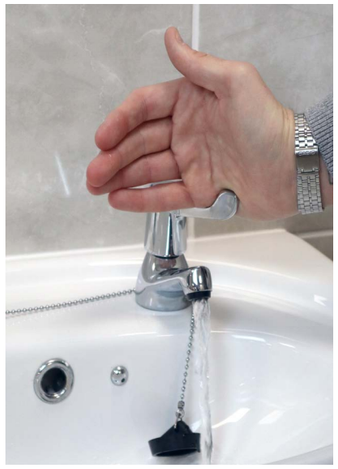
AKW Rise & Fall Bidet features an adjustable-height pan which makes lowering to/rising from the toilet easier by reducing strain on hips/knees; if dexterity is reduced, the ergonomic remote or Sensor Operated Switch control the wash/dry cycles, eliminating the need for toilet paper.



A sturdy, comfortable **shower seat** will not only relieve the pressure off knees and hips, but it will also give the client a sense of security when showering.



Shower enclosures with D-shaped handles and latches offer full hand grip, helping to minimise strain on fingers and wrists.



Twist taps can be difficult to grip; **lever taps** are a cost-effective, easy-to-use alternative, and can even be operated by a closed fist or elbow.

10-POINT QUICK RECAP

1. Talk to the client to identify not only their access needs but their usual habits in the kitchen or bathroom and at what times of day.
2. Keep the room layout logical to the client and ensure everyday objects are positioned at waist height, within easy reach and where possible, where they can expect to find them.
3. Consider designing the space with seating or resting areas to support functioning whilst seated.
4. Future-proof the environment to support people with a degenerative condition.
5. Keep it simple – there is no point recommending an adaptation that the client is never going to use.
6. Products featuring automated operation will reduce bending and stretching by the client and can still be used by other members of the household.
7. Remove clutter; unnecessary items of furniture which may become an obstacle, and floor rugs or trailing wires to reduce the risk of trips and falls.
8. Recommend both short-term solutions and long-term changes.
9. Confidence in the environment leads to maximising of engagement and independence.
10. Be flexible, use available established knowledge resources if necessary.





SUMMARY

While this guide provides a comprehensive overview of the principles of designing kitchens and bathrooms for people living with arthritis, it should not be used in place of, but alongside input from the client.

It is vital to take the time to speak to the individual users to get a definitive account of their routine and daily habits. 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 to ensure accessibility.

It is also critical to remember that modifying a bathroom or kitchen is not just about highlighting where there are risks and trying to reduce them. It is also about supporting people when taking those risks to help them to achieve a normal routine in the room that allows them to complete tasks that are meaningful to them.

Supporting positive risk taking can have a dramatic influence on the individual's well-being 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.

AKW®
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ORDERS & QUOTES
01905 823 299
orders@akw-ltd.co.uk

GENERAL ENQUIRIES
01905 823 298
sales@akw-ltd.co.uk

TECHNICAL ENQUIRIES
01905 560 219
tech@akw-ltd.co.uk

AKW
Pointon Way, Hampton Lovett
Droitwich Spa, WR9 0LR

Total Park, Pochin Way,
Middlewich, CW10 0GT

akw-ltd.co.uk
orders.akw-ltd.co.uk

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Scan to visit the AKW Clinical Hub, a collection of condition-specific digital resources to support OTs

Scan to browse or download the AKW Accessible Kitchens brochure