



The Bathroom: Modify the Room to Match Your Abilities

by Carol Siebert, MS, OTR/L, FAOTA

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he bathroom and activities usually performed there often pose challenges for stroke survivors. The bathroom is usually the smallest room in the house and has a narrower doorway. In older homes, there may be a single bathroom, often on an upper floor or far from main living areas. Activities performed in the bathroom are usually personal and private, and some must be performed multiple times a day and, in some instances, through the night. Bathroom furnishings have hard surfaces — porcelain, tile or fiberglass — and some become wet and slippery during use. While this combination of design features may make it difficult for survivors, modifications can be made.

The goal of home modification is to achieve a better fit between the abilities of the people living in the home and the demands posed by the environment.

Home modifications

Getting started

For many survivors, a few bathroom modifications can significantly reduce the difficulty, effort or risk associated with personal care activities. In many cases, these modifications require an investment of only a few hundred dollars and the skills of a handyperson. Although there are many modifications possible, at various levels of complexity, it is seldom necessary to do a major remodel.

What works for you depends on your abilities, your preferences, the existing features in your home, your financial resources and your tolerance for making changes in your home. If you are not sure about what would work for you, consider consulting an occupational therapist. A consultation will assess your needs, preferences and abilities, your routines and habits, and the existing features of your home.

If the modifications you select require the services of tradespeople, the occupational therapist will work with them to ensure that your needs are met. And when the modifications are in place, the occupational therapist may offer follow-up instruction.

For some survivors, modifying the home seems like “giving up.” But humans have always adapted and refined their environments and tools to make tasks more manageable. Elevators, icemakers, electric can openers and remote controls are all examples where demands of a task have been simplified (reduced effort) by modifying the environment or the tools of a task. Humans also refine designs to reduce risk. Common examples include stair railings, textured tub surfaces and fireplace screens. The goal of home modification is to achieve a better fit between the abilities of the people living in the home and the demands posed by the environment—to maximize independence and minimize risk.

Bathroom modifications can range from simple tools and devices to building another bathroom. Many common and effective modifications are relatively modest in terms of cost, technology and disruption. Some require permits and professionals with special expertise, but others can be installed or implemented by nonprofessionals or “handypersons.”

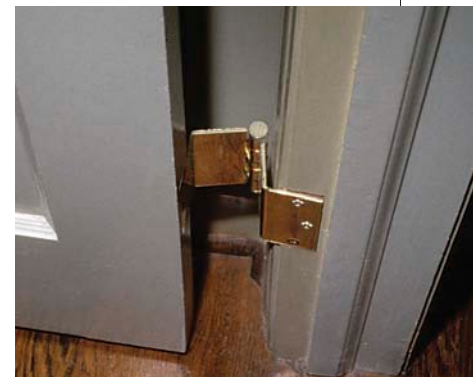
Common problems and home modification solutions

Bathroom access

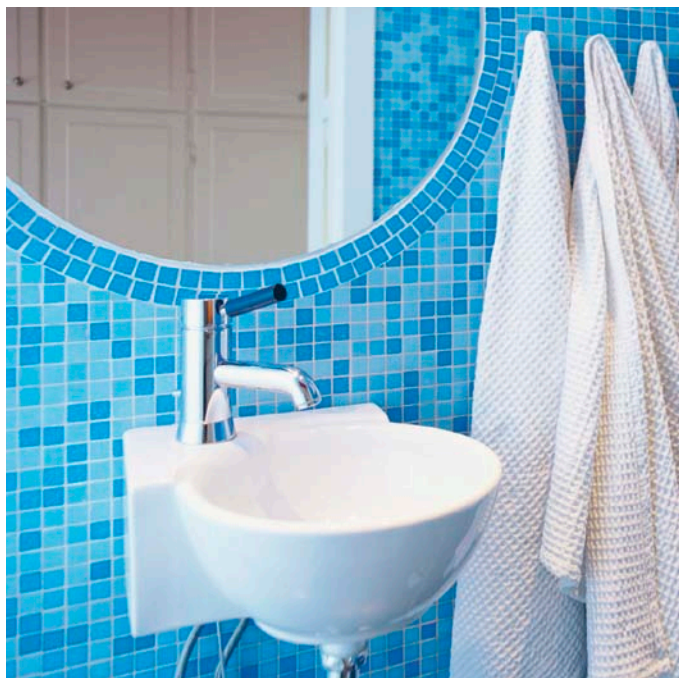
Access to the bathroom is often the first problem to address. If the bathroom is on an accessible level of the home, the problem is usually passing through the doorway, especially if you use a walker or wheelchair. Standard bathroom doorways are 24 inches wide, with as much as two inches unavailable due to the width of the open door hanging from the hinge. In contrast, walkers are typically 18–25 inches wide and manual wheelchairs are 24–30 inches wide.

In many cases, obtaining the full width of the doorway (24") will allow a walker or a narrow wheelchair to pass through. To obtain the full width, the door hinges can be replaced by offset, or “swing-clear” hinges (see photo below). Replacing the hinges and reinstalling the door requires two people and only a screwdriver and a rubber mallet or hammer. For this solution to work, there must be adequate room for the door to open to at least 90°. If there is not enough room, an alternative is to mount the offset hinges on the outside of the doorframe so the door swings out. This requires a few more tools and basic carpentry skills and should be done so that having the door open does not block access. When doing this to allow wheelchair access, remember that if the doorway is only slightly wider than the chair, you will not be able to propel the chair through the door by grasping the wheelrims.

Widening the doorway is more complicated and should be completed by someone who has both rough and finish carpentry skills. The width available depends on how the wall is constructed, whether the wall is a load-bearing wall and the location of wiring, plumbing and ductwork. Maximum width of residential doors is 36".



Offset hinges maximize door width.



Wall-mounted sinks are more accessible and single-lever faucets are easier to operate with one hand.

Moving about in the bathroom

In homes built before 1960, bathrooms are very small, and fixtures may be placed so that they can't be accessed using a walker. In some cases, this can be solved by installing a railing or long grab bar for support to move through the narrow area to the toilet (if you are able to transition from walking with the walker to walking using the railings). This solution requires some handyperson skills. In homes built in 1970 or after, there is usually adequate passage between the fixtures to allow use of a walker in the bathroom.

If you use a wheelchair, there is seldom room in a home bathroom to maneuver between fixtures. Depending on the configuration, you may be able to access one and even two fixtures, but to access the sink, toilet and tub/shower, it is necessary to enlarge the bathroom or half-bath. Sometimes this can be accomplished by expanding into a closet, either in the bathroom or in an adjacent room. Relocating or adding a doorway should be considered when planning to enlarge a bathroom, as this may significantly improve access and reduce effort.

When there is no adjacent closet, expansion may involve expanding into an existing room or "bumping out" an exterior wall. Expansion into an adjacent room is less complex and costly, but may be undesirable if

it makes the adjacent room unusable for its existing purpose. Sometimes interior expansion is not feasible due to the location of load-bearing walls or the complexity of relocating plumbing, ductwork or wiring in the wall. If the bathroom is on an exterior wall, you may consider expanding the bathroom by bumping out the exterior wall. This is obviously a more costly project. In almost all cases, a bathroom expansion will require permits and skilled tradespeople.

Grooming tasks

Having an appropriate workspace in the bathroom is important for grooming. At the sink, install a single-lever faucet so that you can easily control water temperature and pressure with one hand.

If you feel safer or if grooming tasks are easier to perform while seated, replace a pedestal sink or vanity with a shallow, wall-mounted sink installed so that you can sit with your legs (and wheelchair leg rests) under the sink. Have the mirror lowered or install a retractable (accordion style) wall-mounted mirror so that you have a mirror at the appropriate height and distance to shave or apply makeup. Be sure to have a "pipe sleeve" installed on the drain pipe below the sink to protect your legs from the pipe, which becomes hot when hot water is draining from the sink. Have storage for grooming supplies and towel racks installed to the side so you can reach towels and tools while seated.

Installation of a sink-mounted or wall-mounted soap dispenser makes dispensing easier if you must use one hand.

Most of these modifications are within the skills of a home handyperson, but installing a new sink may require a plumber, especially if a sink is being located in a new spot.

Toileting

The toilet is usually the lowest "seat" in the house. This may make it challenging to transfer to and from the toilet.

The seat can be raised three ways:

- 1:** A seat elevator that attaches to the bowl and raises the seat several inches (see photo on p. 35) is the least expensive solution, and installation requires only a screwdriver.
- 2:** A toilet elevator that mounts between the floor and the toilet (see photo on p. 35) is more expensive, but may be more aesthetically pleasing as the "normal"

Three ways to modify your toilet to better suit your needs (left to right):

1. Installing a seat elevator to the toilet bowl
2. Mounting a toilet elevator between the toilet and floor
3. Installing toilet rails for stability



appearance of the toilet is retained. The elevator can be painted to match the color of the toilet fixture. Installation requires some basic plumbing skills.

Both seat and toilet elevators add about 3.5 inches to the height of the toilet. They are available through Internet and catalog vendors and some medical equipment vendors.

- 3:** To retain the appearance of a “normal” toilet, a standard toilet can be replaced by a higher toilet. These come in two heights. “Comfort height” toilets are 14.5 inches at the bowl rim (as opposed to 13” for a standard toilet) and are carried “in stock” at home improvement stores. “ADA-compliant” toilets are between 16.5” and 18” at the rim and are also available at home improvement stores, but usually must be special-ordered. Replacing a toilet requires basic plumbing skills.

When increasing the height of the toilet is not enough, toilet rails or grab bars may be necessary. Toilet rails are the least expensive and easiest-to-install option (see photo above). Requiring only a screwdriver, they attach to the toilet using the bolts that fasten the seat to the bowl. Rail height and distance can be adjusted, but there must be several inches of side clearance between the toilet and the wall (or other fixture) to install.

If the toilet is adjacent to a wall, you may prefer to install a grab bar. A grab bar should be mounted horizontally at the height of an “armrest” so you can bear down on the bar to raise and lower yourself from the toilet. Grab bars may be more aesthetically pleasing as they come in many colors and finishes. They may also serve as towel racks.

Installing a grab bar requires home handyman skills. Placement may be affected by the location of studs in the wall and by plumbing, ductwork or wiring in the wall. Never install grab bars with hollow wall fasteners or “mollybolts.”

Toilet tissue dispensers can also be relocated to be more accessible. If you use one hand, have the toilet tissue dispenser relocated to that side of the toilet. If toilet hygiene

is difficult, replace a toilet with a bidet or install a bidet attachment to an existing toilet. Bidet attachments and bidets are available from home improvement stores and plumbing suppliers. (A bidet attachment is a device, usually with spigots, installed in your toilet that allows you to wash yourself before leaving the toilet.)

Adding a Bathroom

If there is no bathroom on an accessible level, or expanding is not feasible, the alternative is to add a bath. This requires a contractor, skilled tradespeople and permits. Although this is a more costly option, it is also an opportunity to incorporate fixtures and features that make the bath most useful for you. Some of those features were described earlier, but there are still others to consider:



While costly, adding a bathroom may be your best option.

Install offset tub/shower faucet controls so that they can be reached easily from outside the enclosure. This allows you to set the water temperature and pressure before entering. If you need assistance (now or later in life), it allows an assistant to use the controls without getting wet. Choose a system that allows you to operate the control with one hand. Some systems allow you to control water temperature and pressure separately, allowing you to individualize the flow to your preference.

Install a “wet area” instead of a shower stall. If your ability to stand or walk is very limited and you need assistance to transfer and to bathe, this makes a shower safer for you and the person assisting you. You can transfer to a rolling bath seat in a dry area, be rolled into the wet area, take your shower and roll back to a dry area to transfer to a chair, bed or wheelchair. This reduces the risk of you or your assistant slipping on a wet surface.

Install laundry facilities in the bathroom (if your washer and dryer are in an inaccessible or poorly

accessible area). This does not add significantly to the cost of the remodel and makes laundry more convenient for everyone in your home. **SC**

Editor's Note: For more information on modifying your bathroom for bathing, including shower and tub modifications, visit www.StrokeAssociation.org/strokeconnection.

About the author...

Carol Siebert, MS, OTR/L, FAOTA, is an occupational therapist who specializes in home modifications. She is the owner of The Home Remedy, established 10 years ago to provide consultation and services to assist individuals to be independent in their homes. Carol has written and presented nationally and internationally on home modifications. She has been an occupational therapist for over 18 years and is currently the president of the North Carolina Occupational Therapy Association.