TIPS FROM AN OCCUPATIONAL THERAPIST

Choosing & Installing Home Grab Bars

By Dr. Vanessa M. Dazio, OTD,OTR/L (D)ABDA

For the elderly and those suffering from disabling physical challenges, bathroom grab bars and safety rails are vital, both for fall prevention and to enhance the ability to perform essential daily life tasks. However, before making any hasty purchases, there are a few factors to consider.

To begin, assess the bathroom users' physical dimensions such as height and weight. Then look at personal factors including age, health status, muscle strength, range of motion, endurance, coordination, balance, cognition, sensation, perception, and functional mobility. Situational, environmental and economic factors can also affect which type of bars you will need and where they will be installed.

Ask yourself when the grab bar will be used the most: for using the toilet, grooming, bathing, or dressing. Analyze the situation by looking at when, where and how these tasks are performed.

PLACEMENT OF GRAB BARS

Once you've decided on a particular type and size of grab bar, you are ready to determine where it will be installed.

Examples 1 - Ms. S:

Ms. S. is 85 years old, 4 feet 10 inches tall, and weighs 100 pounds. She lives alone. Ms. S. has declining eyesight and suffers from arthritis that affects her mobility, range of motion and her ability to hold onto things. In her bathroom is a combination tub/shower which she gets into and out of from the back, usually using her towel rack for support. Once in the shower, she has some difficulty maintaining her balance while walking to the front of the tub, turning on the water, bathing, and retrieving fallen items. She uses other special adaptive devices to wash her feet, legs and arms, and wants additional support so she can safely complete all of her bathtub activities.

Solution: Ms. S. wanted good contrast to help her see the rail, so she chose a 1 1/4" diameter safety rail in stainless steel with a textured surface for an improved grip. Because she enters and leaves her tub from the back, the best choice for her was a wrap-around grab bar. This type of bar is formed in one piece with two 90-degree bends; the vertical rail is placed at the back of the tub/shower wall so she can easily grasp it when getting in and out. The first bend creates a horizontal rail which goes across the back wall, then bends again as it wraps around the side wall. The rail was installed at 31" to accommodate her height.

This rail placement eliminates the need for Ms. S. to use an unsafe towel rack for support. It provides her with significant balance support when entering and leaving the tub, washing her body, bending to reach water faucets or retrieve fallen items. As a result of this installation, Ms. S. can now perform her essential bathroom activities much more easily, and as a result feels much safer and more secure.

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Example 2 - **Mr. B**

Mr. B. is a 40-year-old, 6-foot-tall bank executive who was recently diagnosed with multiple sclerosis. His mobility, strength and endurance changes regularly; some days he feels perfectly fine, and other days he has noticeable weakness and mobility problems. Mr. B. realizes his functional skills will decline over time. He prefers standing while showering, but is concerned about his occasional balance problems and, strength and endurance. He wants to continue showering independently, but realizes his safety is at risk. He does not currently have any visual deficits.

Mr. B. and his wife just moved into a new home with a walk-in shower; half of one wall has been tiled in marble. A gold-rimmed glass enclosure completes the shower's elegant look. His wife would like to maintain the attractiveness of their bathroom while still providing the necessary support for her husband. He plans on purchasing a shower chair for use only when absolutely necessary and wants to drill as few holes as possible in the new marble.

Solution:

Mr. and Mrs. B.'s aesthetic concerns strongly influenced their choice of a grab bar. Personal and situational factors also had to be analyzed. The half-wall was wide enough to provide some support as Mr. B. entered and left the shower. It was not at the most effective height for support, however, nor was it designed to provide a secure handgrip, although Mr. B felt it was adequate for his current transfer needs.

Positioning of the grab bar was determined by first analyzing where and how Mr. B. showered. With the addition of a shower chair, several factors had to be considered, including the chair's height and position in relation to the faucet and showerhead, whether the handrails were adjustable or removable and the possible use of a hand-held shower wand.

Because Mr. B.'s strength varied, and he could shower in both standing and sitting positions, a grab bar was installed diagonally on a side wall, with the lowest end of the rail 32" from the shower floor and the highest at 34". This installation made it easier for Mr. B. to use his arms to help lift or lower his body, while still providing safe standing support. A custom-made color-matched grab bar with polished brass trim was selected, helping to maintain the bathroom's aesthetically pleasing look. A washcloth and soap-on-a-rope placed over the rail completed the new design.

Conclusion

The people in our case studies found solutions that worked for them, but remember that every person and bathroom situation is different. Many factors should be considered before purchasing and installing bathroom grab bars. Properly placed bars can enhance function and improve safety, and many styles, sizes and colors are available.

The above stories are examples of how grab bars offered assistance and benefits to others; they may or may not work for you. The best advice is to seek the services of a qualified health professional, such as an occupational or physical therapist.

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Here are some **basic questions to consider before purchasing and installing grab bars** in the bathroom.

PHYSICAL DIMENSIONS OF THE USER

What are the users' heights?

What are the weights?

What are their body types (obese, frail, tall, tiny)?

PERSONAL FACTORS

Who will be the primary users of the bathroom?

Are showers, baths, or both preferred?

Are there any current physical problems?

What are the problems?

- Can the user lower and lift their body from the floor of the tub? What is their ability to hold onto the rail or turn faucets on and off?
- Are they able to stand up, sit down, bend, reach, rotate, touch their back and toes?
- Sitting and standing balance?
- How far can the arms be raised?
- Is there any impaired sensation?
- Is there an ability to move from one place to another?
- How long does it take to get the tasks done?
- Are there any known health conditions? Will these conditions cause any future physical or mental declines?
- Where and when is the most support needed? Can balance be maintained while standing on one foot, washing feet, back, hair and arms or getting in and out of the tub or shower?
- How are activities actually performed? Are the faucets turned on before or after getting into the tub or shower? Is the front or back used to get in and out of the tub?
- How do transfers in and out of the tub occur? Is there a tendency to grab and reach for things like a towel rack to help transfer?

ENVIRONMENTAL CONSIDERATIONS

For safety, grab bars must be mounted into the wall studs. Where are the wall studs located?

What is the actual available space for grab bar placement?

Are there any hazards? Do the floors get slippery? Are there any slippery rugs, wet areas, poor lighting or protrusions?

Where are soap, shampoo, grooming and bathing implements kept?

How is the visibility? Is the environment foggy when the shower is on?

Is there a shower door or tub enclosure?

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SITUATIONAL AND PERSONAL PREFERENCE

#Do you want grab bars to blend into the environment, or is it better to make the grab bars more easily visible?

Do you want designer styles or special colors?

What type of bar material, such as plastic or metal, do you desire?

Where are the tub, toilet and shower located?

How much structural strength would be necessary if full body weight was applied to the grab bar?

What size grip is needed, 1¼ or 1½ inches?

Would knurled (textured) surfaces on the grab bars be of benefit?

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