

Grab Bars

Grab bars offer support while getting in and out of the bathtub, reducing the risk of a fall. Wall-mounted grab bars, installed properly into walls that are in good condition, are more stable than tub mounted bars. Tub-mounted bars attach directly on the bathtub, but they must be used with caution as they can easily detach when used incorrectly.

Wall-Mounted Grab Bars

Wall-mounted grab bars are available in a variety of sizes, colors and finishes. Most grab bars are made out of stainless steel, nylon over stainless steel, or plastic.

Sizes

Diameter varies from 1 to 1-1/2" inches. Many older adults prefer the smaller sizes (1 to 1-1/4") as they are easier to grip for arthritic hands. Length varies from 18" to 48". The longer the grab bar, the more gripping area there is to use from a variety of positions.

Colors

Several companies make grab bars in a variety of decorative colors. Bright colors are easier to see against a light colored wall than grab bars in standard white. They also add a decorative element that reduces the industrial look of stainless steel bars.

Finishes

Many adults prefer a textured or roughened finish that prevents their hands from slipping when wet. There are several types of finishes that provide slip-resistant surfaces yet are still comfortable to hold onto, especially the brushed finish (sometimes referred to as a "peened" finish) and the rippled finish (sometimes referred to as a "diamond" finish).

Special Note: Choose finishes carefully, as some finishes can be either too rough for fragile hands or too slippery for people with reduced handgrip.

Where to Locate Grab Bars

The placement of wall-mounted grab bars depends on:

- bathtub placement
- wall structure
- plumbing layout
- user's physical characteristics (height, muscle strength, range of reach, etc)
- method of bathing (full emersion or shower)

Using the guidelines below, we recommend that you practice getting in and out of the bathtub while fully dress. Have an observer mark the locations where a safe and comfortable reach is achieved.

General Guidelines of Grab Bar Placement

Shorter Side Wall

Horizontal bar. This location offers a handgrip to support balance while entering the tub from a standing position. Install a 24" - 36" grab bar horizontally on the wall at the foot end of the tub, at approximately 33" - 36" above the floor. Tall persons may need a higher bar.



Vertical bar (not pictured). Some individuals prefer using a vertical instead of a horizontal grab bar in this location. Professionals recommend a 18" - 36" grab bar, installed no more than 9" from the edge of the outside tub wall, with the bottom of the grab bar approximately 32" to 36" above the floor. A textured finish is recommended for a vertical grab bar as the hand may have a tendency to slip while wet.

Longer Wall, Top Bar. One 24" - 48" long grab bar, installed at 33" - 36" above the floor. This location offers a handgrip to support your balance while standing in the bathtub or while getting up and down when using a bath chair. Tall persons may need a higher bar



Longer Wall, Lower Bar. One 24" - 48" wide grab bar, installed 9" - 11" above the bathtub rim. This location offers a handgrip for pulling yourself up from the bathtub floor, transferring from or into a wheelchair, and getting up from a seated to a standing position when using a bath chair.



Angled Bar (not pictured). An angled bar is an alternative to the horizontal bar for getting up from the tub floor or bath chair. Specialists recommend a 24" grab bar installed at a 45-degree angle, sloping up towards the showerhead, with the lowest point approximately 9" above the rim of the tub. Please note that the use of an angled grab bar is controversial. Some specialists state that it is easier to use than a horizontal bar when getting up from the tub floor or bath chair; others state that wet hands can easily slide on angled bars and that the hand cannot easily grasp the bar during a fall when the bar is in this position.

Approximate cost of a grab bar is \$30 - \$100, without installation.

Grab Bar Installation

According to most national and local building codes, grab bars must be installed to sustain 250 pounds of dead load force. For more in-depth information on this topic, please refer to the meeting notes from the Grab Bar Safety Working Group and the Grab Bar Fastener Test Results from the Eastern Paralyzed Veterans Association (EPVA).

The following are among the safest ways to install grab bars:

- directly into the wall studs
- into plywood blocking installed behind the wall
- with a fastener that meets code (see below and resources)

Grab bars installed with only plastic anchors and screws directly into tile and wall board may not hold up during a fall.

Toggler Brand Anchor Fastener

In the Grab Bar Fastener Testing conducted by the Eastern Paralyzed Veteran's Association (EPVA), the Toggler toggle bolt passed the minimum building code standard of 250 lbs. The fastener, installed in 1/2" sheetrock, did not fail until 360 lbs of dead load force were applied.



Togglers are either packaged in large volume (50 to a box) or sold at hardware stores two to a package for approximately \$2.50. In EPVA's testing, four 1/4" togglers were used to install one grab bar.

According to the manufacturer, the Toggler toggle bolt can be installed into any hollow core substrate, including sheet rock, plaster, wood, and gypsum board, and into steel studs.

Wingits Fastener

In the Grab Bar Fastener Testing conducted by EPVA, the Wingits fastener installed in tile and 1/2" sheetrock did not fail until 460 lbs of dead load force were applied.

Illustrated to the right is a side view of the Wingits fastener (normally inside the wall and not visible). According to the manufacturer, Wingits can be installed into the following wall surfaces:

- 5/8" drywall - painted or wallpapered
- 5/8" or 1/2" drywall with tub surrounds
- 5/8" or 1/2" drywall with tile, marble and all stone
- 5/8" or 1/2" drywall with panels made out of fiberglass, faux marble, acrylic & plastics
- multiple layers of drywall
- plaster & lathe
- 1/4" acrylic/fiberglass surrounds
- 1/4" acrylic/tub surrounds
- all masonry type boards, with or without panels



Cost per grab bar is \$50.00 (for two), which does not include the installation cost.

Tub-Mounted Grab Bars

For situations in which it is not feasible to install a wall-mounted grab bar, companies make tub-mounted grab bars that clamp or screw onto the side of the tub wall. This type of bar must be used with extreme caution as it can easily detach from the tub if used incorrectly.

Generally we do not recommend the usage of tub-mounted bars. We tested various types of tub-mounted bars and many easily detached from the tub wall while getting up from the tub floor and while getting in and out of the tub.

Unfortunately, consumers are not given sufficient information on how to purchase and use tub mounted grab bars safely. One manufacturer's written instructions only stated: "This product should not be used without proper instructions from a healthcare professional". Another manufacturer advised people with limited physical capabilities to be supervised and assisted when using the tub bar.



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