

Plain-O Helpers

“Seniors Helping Seniors”

Grab Bar Installation Guidelines



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Plain-O Helpers
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"Grab Bar Installation Guidelines"

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GRAB BAR INSTALLATION GUIDELINES

Preface: In 1990, Congress passed the “Americans with Disabilities Act” (ADA). It was amended in 1992 to include “**Americans with Disability Act Accessibility Guidelines, (ADAAG)**”. These “Guidelines have been incorporated into State Statutes and building codes across the country.

Although privately owned residences, condominiums, and townhouses are exempt from ADA, it is our policy to comply with ADAAG as much as possible. ***It is especially important in Rental units such as apartments, projects like Chase Oaks, etc.***

NOTE:

- 1. If a new client, obtain a signed “Request for Service and Release” before drilling holes in the wall.***
- 2. If Rental property, obtain a signed “Property Owner Approval” before making any structural changes to a rental property.***

Caution: If unsure of what to do, or concerned about the safety of the installation, back off and advise the scheduler to reschedule the installation with a more experienced crew. There are a few times when a client requests grab bars be installed in inappropriate locations. It is our responsibility to discuss options with the client if you feel that it might cause a dangerous or an unusable installation.

PROCEDURES:

1. LOCATION:

- .1** Ask the client if a therapist or visiting nurse has marked or suggested locations for the grab bars. Follow the therapist’s suggestions as closely as possible; however, therapists often do not seem to know the ADAAG guidelines and **may** mark grab bar positions not in the guidelines (Usually at an angle). We should discuss the conflict with ADAAG with the client and get approval for any deviation for the location. If the client wants the therapist’s suggestions, have the client confirm the location.
- .2** Determine the location for the grab bar to provide the best ergonomic way to enter, use, and exit from the shower, bathtub or toilet, (See Toilet Safety Frame).

The American with Disability Act Accessibility Guidelines (ADDAG) recommends installing bars “Horizontally”, not less than 33” or higher than 36”, measured from the floor to the top of the bar.

.3 Our normal installation is:

a. **TUBS:** (1) one **18”** grab bar vertically at the end of the tub normally used to enter the tub (usually at the end away from the controls) ((36”-42” to bottom of bar)). and, (2) one **24”** bar, horizontally in the middle of the back wall of the tub, over the soap dish (**33”-36”** to top of bar).



b. **SHOWER ENCLOSURE:** (1) If possible, one **18”** grab bar vertically on a wall just inside the shower door, ((36”-42” to bottom of bar)) and, (2) one **24”** grab bar horizontally on the side wall.

c. **Walls:** Locate **18”** or **24”** grab bars. If horizontal, recommend **33”-36”** from standing surface to top of bar. (See paragraph 7 for halls and stairs, etc.)

.4 Show the client your proposed locations. Adjust if desired by client and obtain approval before installation.

2. MARKING:

.1 With the grab bar in the desired position, mark **one hole** with the felt tip pen.

(If mounting on sheetrock, try to get at least one screw into a stud; however, this is seldom possible.

.2 Place the spring loaded punch in the center of the mark and punch a starting spot in the tile to break the glaze. This is to help prevent the drill bit from wandering around on the tile.

.3 Drill **one pilot hole** with **small** bit (1/8”- 3/16”). There are two reasons for a pilot hole. (1) To make drilling a **3/8”** hole easier, and, (2) if you hit a stud, you do not have to drill a 3/8” hole and insert an anchor. Just use a screw in that hole.

.4 Place grab bar in desired position. Insert a screw in the pilot hole, screwing only enough to hold in place. Hold the grab bar against the wall to prevent sliding and mark the other 5 holes. Use a level for alignment of horizontal bars.

3. **BASIC INSTALLATION PROCEDURE** (Ceramic tile)

- .1 Drill a pilot hole at each screw location with a **1/8th – 3/16"** masonry bit.
Note: If using a 3/16" bit and hit a stud, do not drill too deep or the screw might pull out. Use a 1/8" bit to drill the pilot hole in the stud. Covering the screw with soap will help prevent binding.
- .3 Mark any holes that appear to be drilled into a stud.
- .4 Drill all holes, (except in studs), with a 3/8" masonry drill bit.
- .5 Insert nylon inserts and using a rubber mallet, pound in until the insert is tight against the tile.
- .6 Hold grab bar in place, insert 6 screws using a Phillips head screwdriver.
- .7 Tighten grab bar to the wall. .
- .8 Attach covers plate by pushing onto the flanges and twisting. They should snap in place, *although, they might still be able to turn around the flange.*
- .9 Sweep up dust from drilling and if possible wash out the shower or bathtub. *Leave the project in a clean condition.*
- .10 Replace any bath mats, chairs, etc. in their original location.

Suggestions:

- i. Start all 6 screws by screwing in only enough to hold them in place *until all screws are in the holes. Leaving them loose allows for adjusting the grab bar if any holes are slightly out of alignment.*
- ii. Tighten one screw at each end of the grab bar before tightening the others.
- iii. If using a power drill, slowly screw in until snug and then tighten with a hand held screwdriver. (Screwing in too fast or with too much torque, might strip out the anchor. Hold the screw driver straight against the screw with considerable pressure. *If the screw driver begins to "pop", jumping from slot to slot, back off and adjust the alignment of the screw driver. Stripping the screw head will require removing it with the lock tight pliers.*
- iv. On vertical bars, tape the two cover plates at the middle of the bar to keep them from sliding down and covering the bottom screw holes.
- v. Before drilling, check around the area for items the might fall off a shelf, wall, etc.
- vi. If asked, Grab Bars cost about **\$20.00 each.**

4. **ALTERNATE INSTALLATIONS:**

1A. Porcelain Tile

Basic Installation procedure, (See Ceramic Tile, pg. 4), except:

- .1 Use the drill bits marked "Porcelain Tile".

- .2 Start with the smallest drill bit (1/8th ") and move up in size in small increments (3/16", 1/4", 5/16") to 3/8". Starting small *makes it easier to drill the holes*.
- .3 **KEEP drill bits wet** or they will burn out quickly.

2A. Sheetrock

Basic Installation procedure, (See Ceramic Tile, pg.4), except:

- .1 Use "Wood" drill bit.
- .2 Use a 5/16th bit for anchor holes. (A 3/8" hole will allow the anchor to spin in the sheetrock).
- .3 Use the little "Yellow poker", found in the anchor box, to expand the nylon anchor behind the sheetrock before screwing on the grab bar

3A. Synthetic materials (Corian, etc.).

Basic installation procedure, (See Ceramic Tile, pg.4), except:

- .1 Use "Wood" bits.
- .2 Use a small bit first and move up in size gradually to 3/8"

4A. Fiberglas Tub/Shower Wall surrounds

Basic installation procedure, (See Ceramic Tile, pg. 4), except:

- .1 Use "Wood" bits
- .2 Use a small bit (1/8") for pilot holes.
- .3 Use a 7/16"- 1/2" bit for anchor hole.
- .4 Insert 1/8" toggles with #6/32x2" stainless steel bolts, with a small flat washer.
- .5 If available, use the "Toggle bolt screw head installation tool". Hold back pressure on the screw heads until tight against the wall.
- .6 Tighten with a hand held screw driver.
- .7 Apply a small bead of clear, silicon sealant around the top half of the cover plates, against the wall.

5. OWNER FURNISHED GRAB BARS:

- .1 Occasionally, Clients will ask for grab bars that we do not furnish. Either for color, design or length. Advise them where they can purchase the bar of their choice, (Home Depot, Lowes, or Internet) and we will install them if they will call for a follow up visit.
- .2 If they have already purchased grab bars, offer to use the POH bars and they can return theirs for a refund.
- .3 In cases when it appears that the client cannot afford a "Longer" grab bar and the need for a longer bar is obvious, offer to purchase a standard, stainless steel bar for them. Do not offer to buy a "Designer" Bar.

6. TOILET SAFETY FRAME (TSF):

We are often requested to install grab bars next to toilets to aid in standing up. For several years we have offered the client and option of a Toilet Safety Frame, which is a much better solution. *That's what they are made for.* It's a simple installation by removing the toilet seat, placing the TSF base plate on the toilet and reinstalling the seat. The arms and legs snap together and the width and height of the arms are adjustable. Unless there is some difficulty with removing the existing toilet seat bolts, the installation can usually be done in 5-10 minutes.



- 6.1 If asked, Toilet Safety Frames cost about **\$35.00**.
- 6.2 You can point out that if requirements change, the TSF can be removed without any damage to the floor or walls.
- 6.3 It's recommended that each grab bar team carry at least one TSF. That can save a follow up at a later time.
- 6.4 **Note:** Occasionally, an existing toilet seat will have attached bolts that will not allow mounting on the TSF base plate. Recommend that a new toilet seat be purchased and installed with the TSF. **Note if it is a "Standard or Elongated seat"** to purchase.

7. HALLS or STAIRS

If asked to install multiple grab bars (2 or more) down a hall, wall, or, stairs, recommend a continuous rail.

Halls, Walls: Measure the length between openings.

Stairs: Measure the length between the front edge of the top step and the front edge of the bottom step.

8. TOOLS:

- Rubber mallet
- Spring loaded punch
- Felt tip pen
- Masonry drill bits: 1/8", 3/16", 3/8th "
- Wood drill bits: 1/8", 5/16", 3/8", 7/16"
- Porcelain tile drill bits: 1/8", 3/16", 1/4", 5/16", 3/8", Relton, Corp (Porcelain)
- Handheld Phillips Head screw driver, #1 & #2
- Phillips Head screwdriver bits, #1 & #2, with minimum of a 2" extender for drill.
- Toggle bolt screw head installation tool. (Looks like a putty knife with a slot cut in the end)
- Level
- Cup for water
- Lock tight pliers
- Small dust brush and dust pan

9. MATERIALS

- Nylon inserts: Hillman, Pop-Toggle, 5/8" Large
- 1/8" toggle w/ 6/32 x 2" stainless steel bolts
- SAE #10 flat washers
- 6" lg. nylon "pop-toggle" anchors for hollow walls
- **Moan, 18" and 24"** stainless steel grab bars w/ screws
- Small tube of clear, silicon sealant
- Tape: Painters, masking, Duct
- Toilet Safety Frame
- Package of nylon toilet seat bolts