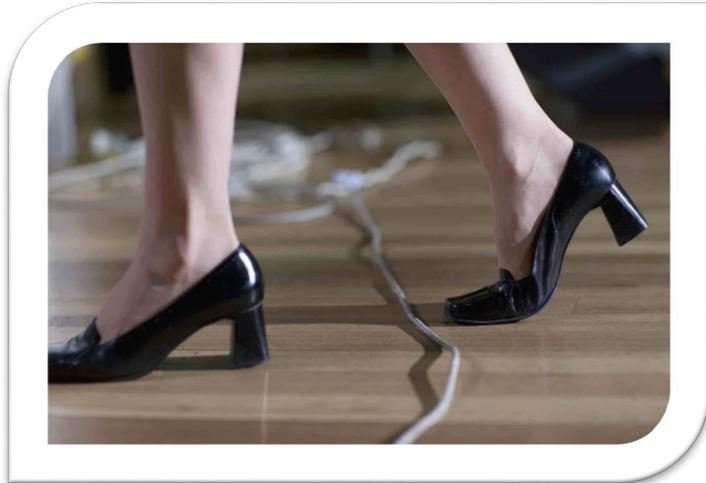


## AT FOR PREVENTING FALLS

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According to the [World Health Organization](#), 37.3 million falls that are severe enough to require medical attention occur each year. If you have a balance disability or a mobility disability, you may be at greater risk of falling. Fortunately, there are many different types of assistive technology (AT) products-including home modification products-that may help you protect yourself against falls. They include:



- Walking aids - you can learn about these by reading [Guide to Walking Aids: Canes, Crutches, and Walkers](#);
- Seating aids (e.g., postural support chairs, powered lift chairs, etc.) - you can learn more about these by reading [Take A Seat: Adaptive Posture Support Seating & Positioning Chairs](#);
- Bathroom safety aids (e.g., grab bars, shower chairs, etc.) - you can learn more about these by reading [AT for Safe Bathing](#);
- Environmental adaptation products (e.g., stair rails, non-slip floor covers, etc.); and
- Fall detection monitoring devices.

This guide will focus on the last two categories, highlighting several different environmental adaptation products and fall detection monitoring devices that are designed to help you live in your home with greater stability, confidence, and independence.

### Environmental Adaptation Products

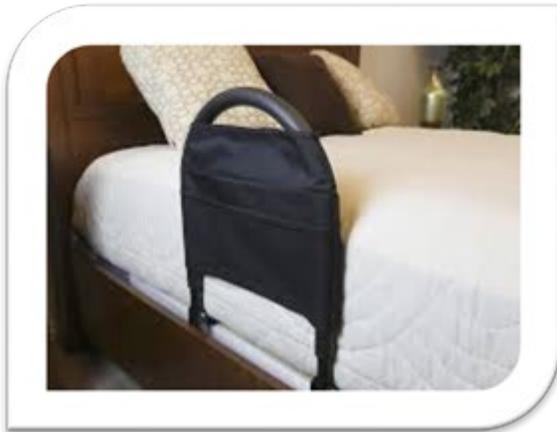
Environmental adaptation products help you maintain your balance and prevent you from falling by providing you with a safer living environment. Here are some products designed to help you do just that.

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## Bed Rails

Bed rails are bedside handrails that offer balancing support as you get into and out of your bed. You may find them particularly helpful if you have a balance disability or have trouble sitting down or getting up from a seated position. You can grab the bars and use them to:

- Steady yourself to sit or lay on your bed;
- As a leveraging handgrip to raise yourself up from your bed; and
- As a stabilizing support frame to secure a firm footing on your floor before getting out of bed to tackle the day's tasks ahead.



*Stander Bed Rail Advantage*

One option is the [Standers Bed Rail Advantage](#). The bed rail consists of a handle connected to a base with a safety strap. The handle is perpendicular to the base. You can set up the bed rail on either the right or left side of your bed. To set it up, slide the base between your box spring and mattress so that the side of the handle is snug against the mattress. The top of the handle should rise above the mattress. Then, pull the safety strap across the width of your bed between your mattress and box spring

to secure it around your bed frame on the opposite side of where handle is located. [View the installation instructions](#) for more details. To use, grab the top of the handle to steady yourself when sitting or lying or to raise out of your bed. The Standers Bed Rail Advantage features a four-pocket organizer pouch that provides convenient storage so you can keep handy items close by, as well as a portable design so you can fold it down flat for quick storage and easy travel.

Another option is the [AbleRise™ Bed Rail](#). This double-sided model (#76488-0010) has two handles for each side of your bed. The two handles may be helpful if you use either side to get into or out of bed and/or if you and your partner both need balancing support. Consisting of a base and the two handles, the AbleRise™ Bed Rail is adjustable to twin, full, and queen size beds. To set it up, slide the base between your mattress and box spring. The tops of the handles should rise above the mattress. To use, grab the top of one of the handles to steady yourself



*AbleRise™ Bed Rail*

when sitting or lying or to rise from your bed. The AbleRise™ Bed Rail features height-adjustable handles to adjust them to your preferences; non-metal, high-impact plastic on the handles to prevent them from getting cold; and a roomy pocket on each handle to store personal items and keep them within arm's reach.

### Stair Rails

Ascending and descending stairs can be a risky endeavor, especially if you have a balance disability or a mobility disability. A possible solution is a stair rail—a handrail that parallels a staircase on either the left or right side, or both—designed specifically to assist you if you have a balance or mobility disability. They offer additional balancing support and something to hold onto as you climb up and down the steps, playing a vital role in safety and fall prevention.

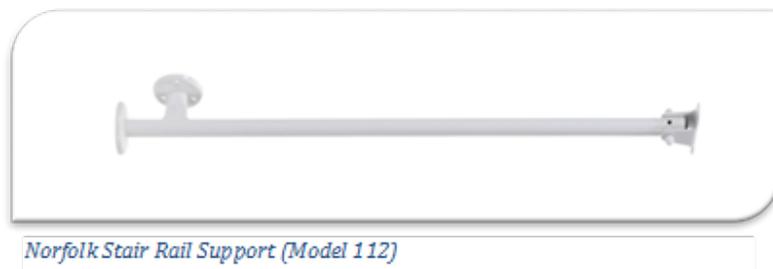


1200 Handrail

One option is the [1200 Handrail](#). The stair rail comprises an aluminum retainer, a vinyl covering, and fasteners. To attach it to your wall, cut the aluminum retainer to the desired length and then mount it to the wall using the provided fasteners. Cut the vinyl covering to the appropriate length (long enough to cover the retainer) and snap it into place over the retainer. The thick, scratch- and stain-resistant, rigid vinyl covering has a pebbled, textured surface

and an ergonomically designed thumb groove. Once it is attached, these features are designed to help you maintain a steadier, firmer grip around the stair rail when you use it to traverse up and down your stairs.

Another option is the [Norfolk Stair Rail Support \(Model 112\)](#). It comprises a peel-resistant, plastic-coated steel tube with a movable head flange at one end and an



Norfolk Stair Rail Support (Model 112)

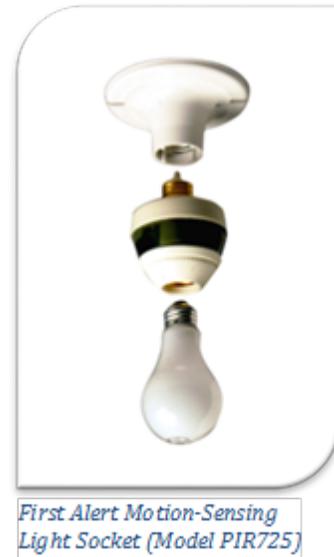
immovable one on the other, as well as screws to attach it. To attach to your wall, screw the immovable head flange to the wall at the top of your stairs. Then, attach the movable head flange with screws at the bottom of your stairs. The movable head flange

is designed to allow you to position the tube at the desired angle and position on the wall that best supports your needs.

### Lighting

Poor lighting can increase your risk of falls. One possible solution is motion sensor lights—a lighting system that turns on automatically whenever it detects movement within its sensor’s range. Motion sensor lights can help reduce the risk of falls in two ways: first, they do not require you to go to the light switch to turn the light on or off, and second, they provide enough illumination for you to see and avoid obstacles—if there are any—in your path.

One such example is the [First Alert Motion-Sensing Light Socket \(Model PIR725\)](#). This unit has prongs on one side (for inserting into an existing home light socket) and a light bulb holder on the other side. The unit must be attached to a ceiling-mounted, bare bulb light socket located approximately 8 feet above the floor (the infrared sensor cannot penetrate glass or plastic so it is not compatible with glass-enclosed or shaded lamps). Once the unit is attached, its infrared sensor will detect motion up to 12 feet away and turn the light on for you automatically, hands-free. If no movement is detected for 4 minutes, it will turn off automatically to help you keep energy costs down. The First Alert Motion-Sensing Light Socket offers 360-degree motion detection; works in full daylight, in darkness, and at any light level in between; and works with a standard incandescent bulb up to 100 watts, a compact fluorescent bulb up to 50 watts, or a LED bulb up to 16 watts.



Another example is the [LightIt Led Sensor Light \(Model #20043-307\)](#). This battery-powered unit has a front panel with four LED lights and a back panel with self-adhesive tape. You can tape the back panel anywhere (e.g., stairways, hallways, and bathrooms) you want light. The unit turns its lights on automatically when it detects movement within 6 feet of its location and turns them off automatically 20 seconds after it stops detecting any movement. The four lights on its front panel are also adjustable so you can aim them wherever you need light the most (e.g., the floor). The LightIt Led Sensor Light

uses wide-beam, LED floodlight technology that is ultra-bright and glare-free and projects light at an angle of 100 degrees.

### *Non-Slip Floor Mats and Treatments*

Newly polished hardwood floors, slick linoleum tiles, and well-trodden carpets are just a few of the culprits that can increase the likelihood of accidental falls in your home, especially if you have a balance or mobility disability. One possible way to protect yourself against such slippery culprits may be to lay down non-slip mats or use products that coat your floor with an anti-slip treatment.



*People Treads*

One option is [People Treads](#). It is a mat made of translucent, soft vinyl. The bottom of the mat has a self-adhering bottom (with protective release paper), and its top has non-slip, rubberized treads. To attach it to your floor, peel off the protective release paper to expose the self-adhering bottom of the mat. Then, place one corner of the bottom of the mat flat against your tile, wood, laminate, ceramic, or concrete flooring and lay it across the area of

your floor you wish to cover. Once attached, the mat's rubberized treads provide you with greater traction as you walk across its surface. And, because the mat is translucent, it will not hide or cover up your beautiful floors—you can still showcase them without compromising your safety or balance.

An alternative option is [No. 1222 Trusty-Step Non-Slip Acrylic Coating](#). It is a clear, water-based acrylic coating that covers, seals, and creates a slip-resistant surface once it is applied to your floors. This product can be applied to a variety of floor surfaces, including vinyl, metal, glass, fiberglass, tile, marble, granite, terrazzo, concrete, and steel. Before applying it to your floor, pour the entire bottle of No. 1222 and the provided bag of aggregate into a paint pail and gently stir the mixture together with a mixing paddle. Then, pour the mixture onto your clean, dry floor and spread it uniformly across the entire surface using an applicator (not included). This acrylic coating contains crystal clear polycarbonate aggregate particles, which provide texture to your slippery floors and thus increased friction and greater traction for your feet.

### **Safety and Security Aids: Fall Detection Monitors**

Like all emergency plans, it is important to know what to do in the event of a fall. If you are unable to get up on your own or are injured after a fall, there are wearable emergency alert devices that can connect you to someone who can assist you.

One example is [Bay Alarm Medical's In-Home System](#). It is a personal emergency response system that can connect you to outside assistance with just a push of a button. This system consists of a base station console with a high-output speaker and a microphone that allows for clear, two-way communication and a wearable, waterproof pendant with a help button. You attach the pendant to a necklace or wristband. To use, plug the base station console's power adapter into an electrical outlet and plug your landline's phone jack into the base station console.



*Bay Alarm Medical's In-Home System*

If you ever are at home and fall down, push the help button located on your pendant. You will be connected and able to speak with a trained, live operator through the base station console. Tell him or her what the emergency situation is (e.g., that you have fallen), and if necessary, the operator will contact one of your friends, family members, neighbors, or local 911 emergency services on your behalf. Operating services are available 24 hours a day, 7 days a week. The base station console also has a 32-hour battery backup. So, in the event of a power outage, the system will continue to run for up to 32 hours.



*NextAlert II*

Another example is [NextAlert II](#). It is a mobile medical alert system with automatic fall detection. The NextAlert II consists of a waterproof pendant with a help button, built-in speakers, and a necklace for the pendant. This system does not require a landline or a base unit console. Instead, it uses its own independent cellular network to connect you to an operator to assist you 24 hours a day, 7 days a week when you push the button on the pendant. It also has a built-in accelerometer and GPS, two features that can automatically detect when and where you have fallen, respectively. If you ever fall down and are incapacitated (e.g., lose consciousness) as a result of the fall, the accelerometer will detect your position and automatically contact the monitoring center

for you. The operator will attempt to communicate with you. If they are unable to, they will dispatch emergency responders to your location using the GPS function.

### [For More Information](#)

To learn more about these and other fall prevention AT products, please visit [AbleData](#).

### [References](#)

World Health Organization. (2018, January 16). Falls. Retrieved from <http://www.who.int/news-room/fact-sheets/detail/falls>



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Address: AbleData, 103 W Broad Street, Suite 400, Falls Church, Virginia 22046  
Telephone: 800-227-0216 (Se habla español.)  
TTY: 703-992-8313  
Fax: 703-356-8314

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