

# Improving Safety, Mobility and Activities of

A home safety assessment could help prevent health hazards for patients with physical and/or mental health conditions.

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# Daily Living at Home

**HOME SHOULD BE** a haven, but too often, it unnecessarily becomes a hazard. This can be especially true for people with chronic illnesses and those who are returning home from a hospital stay.

One tool that can help make the home a safer place is the home safety assessment. Indeed, patients who initially think they don't need one are often surprised and appreciative at the potential dangers discovered and the recommended modifications to resolve them.

A home safety assessment can be performed by discharging facilities or home health or hospice agencies that will be continuing care for patients. In addition, physical therapists, occupational therapists and nurses are uniquely qualified to perform the assessment should patients be fortunate enough to have access to one. If access is not available, following is a systematic review of items patients, family members and caregivers can consider as part of a home safety assessment, followed by several adaptations to make the environment safer if concerns are found.

## Outside the Home

Safety at home begins outside the home. In fact, a 2006 study reported that "falls occurred outdoors more often than indoors among most age groups.... Most outdoor falls (73 percent) were precipitated by environmental factors, such as uneven surfaces and tripping or slipping on objects, and usually occurred on sidewalks, curbs and streets. Walking (47.3 percent) was the most common fall-related activity."<sup>1</sup>

Efforts to make the home and yard safer may require simple free adjustments, or they may entail modifications that cost a bit of time and/or money. Either way, they more than pay for themselves. The average national cost per day for an inpatient hospital stay is approximately \$2,000 and can be much higher based on the reason for hospitalization. The average cost per day in a skilled nursing facility is about half the cost of a hospital. And, the average hospital stay after a hip fracture is more than 10 days. A lot of home modifications could be made with the money saved from not having to pay one large co-pay or health insurance deductible!

## Outdoor Checklist

### ✓ Walkways and driveways

Are they in good repair (e.g., no cracks or unevenness)?

Are they free of obstacles (e.g., garden hoses or fallen branches)?

Are they free of wet leaves, ice and snow?

Is there adequate lighting?

Is the slope of the driveway low enough to not be problematic?

Consider repair of walkways, use of flood and landscape lighting and behavioral changes (loading/unloading car only at the top of the driveway; driving to the bottom of the driveway or asking for help to pick up mail from the mailbox, etc.)

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### ✓ Steps/stairs

Are walkways and porch steps clearly visible?

Are handrails present, sturdy and in good repair?

Are stair treads level and sturdy?

Are stair risers of equal height?

Consider placement of nonskid stair tread and/or reflective decals to mark each riser.

### ✓ Ramps

Are ramps sturdy, in good repair and free of obstacles?

Is there a minimum run-to-rise slope ratio of 12:1 (i.e., 12 inches of ramp length for every 1 inch of height)?

Is there a smooth transition between the ground and the ramp surface?

Do railings extend beyond the ramp to help with transitions?

Do ramps have nonskid surfaces?

Is there at least 36 inches between ramp handrails to accommodate walkers and wheelchairs?

Does the landing provide enough space to safely open the door without causing the patient to back up to the edge of the landing or onto the ramp?

Patients dependent on a wheelchair or two-handed device (e.g., adaptive walker) should have a ramp for at least one of the entrances to their home. Some local civic groups and other non-profit organizations may help to build ramps for people in need. There are also a number of metal commercial ramps that can be purchased to navigate one or two steps without breaking the bank.

## FOR THOSE WHO HAVE DIFFICULTY TURNING A DOORKNOB, CONSIDER REPLACING KNOBS WITH LEVER HANDLES.

### ✓ Doors

Are doorways wide enough to accommodate a wheelchair?

Are locks, latches and door handles in working order and easy to use?

Do doors open and close easily without sticking?

If doors are on springs, do they close slowly enough so they will not close on someone crossing the threshold?

Do doormats have nonskid backing without large cracks or upturned corners?

Are thresholds low enough not to cause a significant tripping hazard?

For those who have difficulty turning a doorknob, consider replacing knobs with lever handles. Decals may be placed at eye level on glass doors for patients with low vision or dementia to help prevent them from walking into the door (it may help keep birds from flying into the glass, too).

### ✓ Garages/carports

Are cars easily accessible and walkways free of obstacles?

Is there sufficient lighting with an accessible light switch near the doorway?

Is the patient able to get into and out of the primary vehicle safely?

Auto transfer aids (e.g., Stander HandyBar) can help patients with decreased strength to get into and out of a car more easily.

### ✓ Other

Are trees, shrubs and bushes pruned so they don't encroach on walkways or cause low-hanging hazards?

Do porches/decks have railings to prevent the patient from stepping or falling off?

Are porch/deck floorboards secure with no protruding nails or large splinters?

## Inside the Home

Areas inside the home can present a number of safety hazards besides fall risks. Some situations may not be dangerous to well-bodied people, or may not have been unsafe at another time during patients' lives, but they may now present a threat because of physical and/or mental changes that have taken place related to their health conditions. Keep this in mind when reviewing this checklist.

### *Indoor Checklist*

#### ✓ Passageways and floor coverings

Are floors and transitions between living spaces level and in good repair?

Is the patient able to safely navigate between doorways with or without assistive devices or a wheelchair?

Are hallways and pathways unobstructed of clutter and wide enough to allow passage?

Are indoor stairs and their floor coverings in good repair?

Do indoor stairs have sturdy handrails?

Is there sufficient natural and/or working artificial light in all areas?

Are there any fall hazards (e.g., rugs/mats, pets, cords, oxygen tubing)?

Floor rugs are common fall hazard culprits. If patients are not willing to have rugs taken up and put away, a nonskid backing can be placed between rugs and floors to help reduce slipping and sliding. Patients who use supplemental oxygen can request tinted oxygen cannula tubing versus standard translucent tubing that is notorious for being almost impossible to see until it's too late. Those who truly are not safe negotiating stairs may have to consider moving their living quarters to the home's main level, find a way to cover the costs of a stair lift or consider moving to a ground-level apartment or ranch-style home.

✓ Electrical and fire

Are any fireplaces, lit candles or space heaters in use? Fireplace flues should be clean and unobstructed, and screens should be used when lit. Candles should be discontinued, and space heaters should be in good working condition.

Can the patient safely access and open/close locked windows?

Are there any electrical concerns in the home (e.g., overloaded outlets, electric cords with a short, hazardous placement of cords)?

If supplemental oxygen is in use, are “oxygen in use” signs placed somewhere visible to visitors before entering the home?

Does the patient or visitors smoke in the home when oxygen is in use?

Are oxygen tanks secure and kept in a safe location?

Is the stove in safe and working condition?

Is there a working fire extinguisher accessible?

Are smoke and carbon monoxide detectors present and in working order?

✓ Bathrooms

Are toilets, sinks and showers/tubs working and accessible?

Does the patient have a walk-in shower, or do they have to step into a bathtub basin?

Do showers/tubs have a nonslip surface?

Are there floor mats that could cause a tripping hazard?

Is the water heater set to a nonscalding maximum water temperature?

Is there a night light present in the bedroom or hallway for bathroom accessibility?

Grab bars can be a lifesaver — literally — for those who experience impaired balance and/or strength. The Internet has measurement and installation guidelines that can direct someone in the proper orientation and placement. Bathtub transfer benches, shower chairs, handheld shower heads, long-handled sponges and a number of other adaptive tools can also help to make the bathroom a safer place.

✓ General

Is the patient able to safely transfer to/from all seating surfaces in the home without using an unstable surface (e.g., a side table) for assistance?

Is there a phone that is readily accessible from a standing or crawling position (in case of a fall)? Can the patient use a phone functionally?

Are prescriptions kept in a safe place away from visitors (especially minors), and is the patient able to administer his or her own medications accurately?

If obtainable, does the patient have an extra supply of essential prescription medications in case of an emergency?

Are counters, sinks and cabinets safely accessible without having to reach high overhead or climb on top of something?

Is food available in the refrigerator and cupboards/pantry? Patients may also want to think about keeping a 72-hour emergency supply of food in different parts of the home in case of a natural disaster.

Are living conditions in the home sanitary?

If there are any firearms in the home, are they safely secured and stored?

A number of transfer assist devices can help patients get up from furniture, including sit-to-stand recliner chairs, hydraulic patient lifts, transfer poles and “bed canes.”

## GRAB BARS CAN BE A LIFESAVER — LITERALLY — FOR THOSE WHO EXPERIENCE IMPAIRED BALANCE AND/OR STRENGTH.

### Safety First

Patients living with an immune deficiency, autoimmune disease, potential secondary complications and/or neuropathies already have a lot on their minds. However, thinking about safety first, whether it pertains to infection prevention or an unnecessary accident that could occur at home, will help to preserve health and well-being so that life can be enjoyed and other special considerations are dealt with in the most effective way possible. ■

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### Reference

1. Li, W, Keegan, THM, Sternfeld, B, et al. Outdoor Falls Among Middle-Aged and Older Adults: A Neglected Public Health Problem. *American Journal of Public Health*, 2006 July; 96(7): 1192–1200. Accessed at [www.ncbi.nlm.nih.gov/pmc/articles/PMC1483851](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1483851).