Promoting Safety and Function Through Home Assessments

This article focuses on performing home assessments. It presents the purposes of home assessments, including regulatory guideline adherence, fall reduction, function improvement, and assistive device and adaptive equipment provision. Included is a review of the literature regarding the role of home assessments in reducing falls and maximizing function. The Safe at Home (Securing a Functional Environment with the Anemaet-Trotter Home Observation and Modification Evaluation), the Functional Environment Assessment (FEA), and the Home Safety Checklist provide several methods for performing effective home assessments. Key words: *accidents, adaptive equipment, assistive devices, environmental hazards, falls, home assessment, home evaluation, home safety*

Wendy K. Anemaet, MS, PT, GCS, ATC
Home Physical Therapist
Miami, Florida

Michelle E. Moffa-Trotter, PT, GCS
Home Physical Therapist
Clearwater, Florida

INTRODUCTION

Working with patients in their homes provides the home care team unique opportunities to design programs that meet the specific needs of patients within their individual surroundings. Home care providers strive to optimize a patient's functional abilities not only by modifying internal factors, such as strength and balance, but also external factors, such as living environments. Ideal home situations promote independent function and do not restrict patients in their activities of daily living. Numerous studies examining falls indicate home assessment is a major component of effective therapy treatments.[1–5] A home assessment examines aspects of the living environment both inside and immediately outside the home, denotes areas that may potentially create problems or dangers for a patient, and distinguishes modifications that make the living environment safer and/or more functional.

The Joint Commission on Accreditation of Healthcare Organizations (Joint Commission) recognizes the importance of home assessments. Standard EC.1 from the Joint Commission's *Comprehensive Accreditation Manual for Home Care* states: "The organization also plans for physical safety in the patient's environment. To reduce the risk of injuries or threats to life and health within the patient's environment to the extent possible, the organization designs a method(s) to identify risk."[6]

To perform complete home assessments home care providers must address four areas according to the Joint Commission:

1. Fire safety—Home care providers assess patient homes for fire hazards, instruct in fire prevention, and assist patients in establishing fire plans.
2. Electrical safety—Home care providers instruct patients to recognize electrical hazards and correctly use electrical equipment in order to minimize risk of injuries—an important component of home assessments and imperative if home care providers utilize electrical equipment during treatment sessions.
3. Environmental and mobility safety—Home care providers notify patients of risks associated with environmental hazards, such as scatter rugs, poor lighting, and mobile furniture.
4. Bathroom safety—Since bathrooms present unique challenges for patients, home care providers assess patient safety and accessibility of these high-risk areas.

Home assessments are necessary not only because the Joint Commission requires them, but also for numerous other reasons. A proper home environment decreases a patient's dependence at home and his or her reliance on others. Through appropriate living situations patients control their surroundings, minimize injuries, and optimize their functional capabilities. It is important that home care providers perform home assessments that evaluate the degree of patient safety and functional capabilities within living environments.

ASSESSING SAFETY OF THE LIVING ENVIRONMENT

One in every three elderly persons living at home suffers a fall each year.[7] Of these falls, 50% result in injuries with 5% resulting in fractures and another 5% resulting in other types of major injuries.[5,8] Falls are a major problem for the elderly. Risk factors for injurious falls differ between disabled and independent elderly persons.[2] Home care providers target their efforts toward fall reduction via numerous patient specific interventions, including reduction of environmental hazards.

Environmental factors, in addition to intrinsic factors, play an important role in fall injuries.[9] Carter[4] found 80% of the homes investigated had at least one hazard and 39% had five or more hazards even though 97% of the home dwellers felt their homes were fairly safe or very safe. A study by Fleming and Pendergast[5] of 294 falls noted more than 50% of the falls related to environmental factors, including bedroom furniture, bedspreads, and floor finishes. Further, Morfitt[10] found that 53% of elderly emergency department patients seen after a fall attributed the fall to some environmental factor. A recent study by Gill et al[11] found potentially serious environmental hazards widespread in the homes of elderly persons and, more important, many of these hazards were more common in the homes of frail

elderly persons with disabilities, defined as persons with self-reported deficits in activities of daily living or specific observed deficits on the Tinetti Performance-Oriented Mobility Assessment.

The relative importance of thorough home assessments and modification of environmental hazards differs depending on various factors, including medical conditions and age. Northridge et al[8] compared home safety and falls of 325 elderly persons living at home that were divided into vigorous and frail groups based on their scores on frailty scales. Although the study linked falls to home hazards, the association was not strong. However, vigorous older persons demonstrated increased risks for falls where home hazards were present. Frail elderly persons did not. Further, a study of 911 persons 60 years of age or older found that environmental hazard modifications had the greatest potential for prevention among the young old and those living in private homes.[10] These studies suggest that interventions, including home assessments, should differ depending on the medical conditions of patients and their age. Home care professionals should target their fall prevention efforts through environmental modification toward patients between the ages of 60 and 80 and for those who have few medical conditions.

The need for home assessments and modifications may also differ depending on the patient's fall history. Two-thirds of older persons who fall will fall again within six months.[12] Studenski et al[13] looked at the association between the environment and recurrent falls in a prospective cohort study of 306 male veterans 70 years of age and older. Mobility screens determined risks for recurrent falls and environmental hazards. The study found recurrent fallers had more-threatening environments and that the environment was a significant predictor of recurrent falls.

Because living environments affect fall risk and because falls present such serious consequences for older adults, environmental influences on falling warrant further review of the literature. However, determining whether reducing hazards in and around homes conclusively result in lower incidences of falls is difficult at best. Isolating extrinsic factors such as scatter rugs, stairs, and flooring surfaces from intrinsic factors such as balance, strength, and reaction time is not always possible.

A randomized controlled study investigated the effects of modifying risk factors, including environmental hazards in community-dwelling persons who were at least 70 years of age.[14] Subjects in the experimental group received appropriate interventions for positive risk factors—postural hypotension, multiple medication use, sedative use, transfer and gait impairments, range of motion and strength deficits, and environmental hazards. Results demonstrated that a multifactorial approach, including decreasing environmental hazards in older persons' homes, led to a significant reduction in the risk of falling. However, the amount of fall risk reduction effected by minimizing hazards in and around homes was indeterminate.

Hornbrook et al utilized a multifaceted intervention that included walking, strength and balance training, and home safety improvements with 1,323 community-dwelling persons aged 65 and older.[15] Findings suggested that health problems played a more important role than environmental factors in the more-serious falls.

Plautz and Beck[16] undertook a study that demonstrated a more positive correlation

between environmental hazard reduction and falls. They assessed 141 homes and provided minor home modifications that included installation of railings, grab bars, nonskid strips, and smoke alarms; stair and banister repairs; and securing of rugs and extension cords. Falls occurred 59% less after the home modifications.

Tinetti et al[17] suggest preventive programs that address both predisposing and environmental risk factors. Their study of 568 community-dwelling older persons yielded increased injurious falls with increased hazards in homes.

Although home assessments and environmental risk reduction do appear to improve the safety of the home and minimize falls, the extent is still unknown. Most home care providers agree, however, that any reduction in falls is well worth the small amount of time required to perform a home assessment and make recommendations for home modifications. Falls have serious consequences in the elderly population.[18–22] Fall prevention is a major component of successful home care programs. Home care providers utilize a variety of treatment interventions, including home assessments, to positively affect patients' lives.

ASSESSING FUNCTION IN THE LIVING ENVIRONMENT

In addition to determining the presence of fall risks in the environment, home assessments evaluate patients' abilities to function in their homes. A major part of this evaluation is determining what assistive devices and adaptive equipment are necessary and what modifications need to be done to make assistive device and adaptive equipment use possible.

Of community-dwelling seniors, 13% have difficulty with at least one basic activity of daily living, such as bathing, dressing, toileting, and eating, and 17% are limited in at least one instrumental activity of daily living, such as housekeeping, shopping, and meal preparation.[23] Although some elderly people struggle with activities of daily living, many are unaware that solutions exist for their functional difficulties.[24] Home assessments notify home care providers of areas of difficulty with activities of daily living and assist in provision of aids to improve patients' function with daily living tasks.

Assistive devices and adaptive equipment not only assist with activities of daily living, but also allow patients to function independently. Patients maintain independence in their homes through the use of various pieces of equipment and devices that allow continued performance of routine tasks despite declining physical function. However, if architectural barriers exist, adaptive equipment use may be limited.[25] For example, narrow doorways or bathroom doors that open inward restrict access to bathrooms and preclude wheelchair-bound patients from using bath aids. At other times, architectural barriers make assistive device and adaptive equipment use necessary, as with bedside commodes in instances of bathroom inaccessibility.[26] It is with a thorough understanding of patients' functional abilities and living environments by home care providers that patients receive the recommendations necessary to maximize their functional capabilities at home.

Assistive devices and adaptive equipment also decrease energy expenditure necessary for day-to-day activities.[26,27] Some patients possess the functional abilities to independently perform all activities of daily living

but lack stamina. Chairs with low seat heights require increased energy consumption during sit-to-stand transfers. Placing blocks under the legs of these chairs, or raising seat heights two to four inches with foam cushions, combined with the use of armrests facilitates getting in and out of chairs with less energy.[27] Successful home assessments cue home care providers to consider methods of arranging homes efficiently and to provide assistive devices and adaptive equipment to minimize energy expenditure.

Through home assessments and appropriate modifications, home care providers reduce the amount of assistance required by patients from caregivers and other outside sources. For example, patients with conditions requiring the use of wheelchairs independently navigate ramps that are one foot in length for every one inch of rise needed. Shorter, steeper ramps necessitate caregiver assistance unless patients are unusually strong.[28] Home assessments provide information regarding the necessity for ramps and the optimal ramp length to decrease the need for caregiver assistance.

The importance of environmental assessments and modifications in relation to patients' functional capabilities is supported in the literature. A study of 140 people aged 75 years and older found that individuals who experienced difficulty maneuvering walkers around their homes tended to not use the walkers even though the walkers improved their abilities to independently function in their homes.[29] Also, bath aids (eg, grab bars, shower seats) supplied to patients after home assessments by rehabilitation staff were more likely to be used and resulted in energy conservation and decreased dependence on others.[30] Finally, a population-based case-control study of 270 people aged 65 years and older targeting environmental risks for falls suggested a usefulness of grab bars that warrants further investigation because of the increased incidence of injurious falls in the absence of grab bars.[31]

Effective home assessments delineate problem areas in living environments that impede patients' functional abilities and guide home care providers in appropriate selection of assistive devices and adaptive equipment.

ASSESSING HOME ENVIRONMENTS

Home care providers utilize a variety of methods for performing home assessments. In deciding how to perform these assessments home care providers consider several factors. First, is the assessment comprehensive? Does it cover pertinent details in all areas of the home environment? Second, is the format quick and easy to complete? If home assessment documentation is time consuming, home care providers are less likely to perform assessment. Third, does the format provide step-by-step guidance? Home care providers benefit from cueing contained in the assessment form. Finally, does the format allow for objectivity? Although not always an issue, home care providers need to score home assessments objectively to determine appropriate goal setting.

A home assessment can be performed using the Safe at Home (Securing a Functional Environment with the Anemaet-Trotter Home Observation and Modification Evaluation) method.[32] Two versions of the Safe at Home tool exist to meet the needs of therapists. The Objective Safe at Home provides a complete home assessment form that objectifies findings through the use of ordinal scales (see Appendix). With this tool home

care providers evaluate all major areas of the home environment and rate the assistance required, the difficulty demonstrated by patients, and the safety exhibited while negotiating or functioning in these areas. A checkbox system facilitates documentation and space exists for documenting equipment used and other comments. The Descriptive Safe at Home is a condensed version of the Objective Safe at Home that provides the same useful information about the home and ample space for noting safety concerns and recommendations without the scoring mechanism.

Another method of assessing homes is the Functional Environment Assessment (FEA)[33] (see Appendix). The FEA tool notes hazards present in various areas of living environments called pathways. Home care providers score a patient's difficulty with hazards and frequencies of encountering hazards, and obtain total scores for each pathway by multiplying the hazard scores by the frequencies. The sum of all pathway total scores is the FEA total score. A 10-point increase in score from baseline is associated with a 23% increase in falls.[17]

A third method of assessing homes is the Home Safety Checklist published by the United States Product Safety Commission.[34] It lists potentially hazardous situations and describes possible solutions to minimize risks (see Appendix).

CONCLUSION

Home assessment is an important component of home care. Home assessments determine the degree of safety, function, and comfort of patients in their homes and evaluate the need for adaptive equipment and assistive devices. Through the use of home assessments and appropriate modifications, home care providers are able to decrease the risks for patient falls, improve patients' accessibility in and around their homes, decrease patients' dependence on caregivers, allow patients to perform activities of daily living efficiently, and keep patients living independently in their home environments as long as possible.

REFERENCES

1. Campbell AJ, Reinken J, Allan BC, Martinez GS. Falls in old age: a study of frequency and related clinical factors. *Age Ageing.* 1981;10:264–270.
2. Koski K, Luukinen H, Laippala P, Kivela SL. Risk factors for major injury falls among the home dwelling elderly by functional abilities. *Gerontology*. 1998;44:232–238.
3. Myers AH, Young Y, Langlois JA. Prevention of falls in the elderly. *Bone.* 1996;18:87–101.
4. Carter SE. Environmental hazards in the homes of older people. *Age Ageing.* 1997;26:195–202.
5. Fleming BE, Pendergast DR. Physical condition, activity pattern, and environment as factors in falls by adult care facility residents. *Arch Phys Med Rehabil.* 1993;74:627–630.
6. Joint Commission on Accreditation of Healthcare Organizations. Environmental safety and equipment management. In: *Comprehensive Accreditation Manual for Home Care.* Oakbrook Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations; 1996.
7. Luukinen H, Koski K, Honkanen R, Kivela SL. Incidence of injury causing falls among older adults by place of residence. *J Am Geriatr Soc.* 1995;43:871–876.
8. Northridge ME, Nevitt MC, Kelsey JL, Link B. Home hazards and falls in the elderly: the role of health and functional status. *Am J Public Health.* 1995;85(4):509–515.
9. Norton R, Campbell AJ, Lee-Joe T, Robinson E, Butler M. Circumstances of falls resulting in hip fractures among old people. *J Am Geriatr Soc.* 1997;45:1108–1112.
10. Morfitt JM. Falls in old people at home: intrinsic vs. environmental factors in causation. *Public Health.* 1983;97:115.
11. Gill TM,Robison JT, Williams CS, Tinetti ME. Mis-

matches between the home environment and physical capabilities among community-living older persons. *J Am Geriatr Soc.* 1999;47:88–92.
12. Perry PC. Falls among the elderly. *J Am Geriatr Soc*. 1982;30:367–371.
13. Studenski S, Duncan PW, Chandler J, Samsa G, et al. Predicting falls: the role of mobility and nonphysical factors. *J Am Geriatr Soc.* 1994;42:297–302.
14. Tinetti ME, Baker DI, McAvay G, Claus EB, et al. A multifactorial intervention to reduce the risk of falling among elderly people living in the community. *N Engl J Med.* 1994;331(13):821–827.
15. Hornbrook MC, Stevens VJ, Wingfield DJ. Seniors' program for injury control and education. *J Am Geriatr Soc.* 1993;41:309–314.
16. Plautz B, Beck DE. Modifying the environment: a community-based injury-reduction program for elderly residents. *Am J Prev Med*. 1996;12(Suppl 1):33–38.
17. Tinetti ME, Doucette JT, Claus EB. The contribution of predisposing and situational risk factors to serious fall injuries. *J Am Geriatr Soc.* 1995;43:1207–1213.
18. Smallegam M. How families decide on nursing home admission. *Geriatr Consult.* 1983;1(5):21–24.
19. Tinetti ME. Factors associated with serious injury during falls by ambulatory nursing home residents. J *Am Geriatr Soc.* 1987;35:644–648.
20. Baker SP, Harvey AH. Fall injuries in the elderly. *Clin Geriatr Med.* 1985;1:501–512.
21. Kellogg International Work Group on the Prevention of Falls by the Elderly. The prevention of falls later in life: a report of the Kellogg International Work Group on the Prevention of Falls by the Elderly. *Dan Med Bull.* 1987;34(Suppl 4):1–24.
22. Gryfe CI, Amies A, Ashley MJ. A longitudinal study of falls in an elderly population. I. Incidence and morbidity. *Age Ageing.* 1997;6:201–210.
23. Ficke RC. *Digest of Data on Persons with Disabilities.* Washington, DC: National Institute on Disability and Rehabilitation Research; 1992.
24. Liang MH, Partridge A, Eaton H, Iversen MD. Rehabilitation management of homebound elderly with locomotor disability. *Clin Geriatr Med*. 1988;4:431.
25. Shipman I. Bath aids—their use by a multidiagnostic group of patients. *Int Rehabil Med.* 1987;8:182–184.
26. Byrnum HS, Rogers JC. The use and effectiveness of assistive devices possessed by patients seen in home care. *Occup Ther J Res.* 1987;7:81–91.
27. Arborelius UP, Wretenberg P, Lindberg F. The effects of armrests and high seat heights on lower limb joint load and muscular activity during sitting and rising. *Ergonomics.* 1992;35:1377.
28. Sweeney GM, Harrison RA, Clarke AK. Portable ramps for wheelchair users—an appraisal. *Int Disabil Stud.* 1989;11:68.
29. George J, Binns VE, Clayden AD, Mulley GP. Aids and adaptations for the elderly at home: underprovided, underused, and undermaintained. *Br Med J*. 1988;296:1365–1366.
30. Chamberlain MA, Thornley G, Stowe J, Wright V. Evaluation of aids and equipment for the bath. II. A possible solution to the problem. *Rheum Rehabil.* 1981;20:38–47.
31. Sattin RW, Rodriguez JG, DeVito CA, Wingo PA. Home environmental hazards and the risk of fall injury events among community-dwelling older persons. *J Am Geriatr Soc.* 1998;46:669–676.
32. Anemaet WK, Moffa-Trotter ME. *The User Friendly Home Care Handbook.* McLean, VA: LEARN Publications; 1997.
33. Chandler JM, Prescott B, Duncan PW, et al. Reliability of a new instrument: the Functional Environment Assessment. *Phys Ther*. 1991;71(Suppl):574.
34. U.S. Product Safety Commission. Publication #4701. *Safety for Older Consumers: Home Safety Checklist*; June 1986.

Appendix

Home Assessment Tools

OBJECTIVE SAFE AT HOME

		Assistance	Difficulty	Equipment	Safety	Comments
ENVIRONMENTAL	Driveway ❑ yes ❑ no Paved _____ ❑ yes ❑ no Level Surface ❑ yes ❑ no Adequate Walking Space _____ Feet To Home Entrance					
	Access to Mailbox ❑ yes ❑ no Paved _____ ❑ yes ❑ no Level Surface ❑ yes ❑ no Patient Opens Box Easily ❑ yes ❑ no Steps Number _____ _____ Feet From Home Entrance					
	Primary Path to Home Entrance ❑ yes ❑ no Paved _____ ❑ yes ❑ no Level Surface ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Adequate Walking Space ❑ yes ❑ no Steps Number _____ ❑ yes ❑ no Rails Number _____ ❑ yes ❑ no Secure Rails ❑ yes ❑ no Door Mat ❑ yes ❑ no Nonskid Mat Backing					
	Home Entrance Doorway ❑ yes ❑ no Door Opens into Home ❑ yes ❑ no Enough Room to Open Door ❑ yes ❑ no Threshold Present ❑ yes ❑ no Self-Closing Door ❑ yes ❑ no Door Closes Securely					
ELECTRICAL	Light Switches ❑ yes ❑ no Accessible Locations ❑ yes ❑ no In Working Order					
	Outlets ❑ yes ❑ no Accessible Locations ❑ yes ❑ no In Working Order ❑ yes ❑ no Electrical Hazards Present ❑ yes ❑ no Visible Bare Wires					
	Smoke Detectors ❑ yes ❑ no Appropriate Locations ❑ yes ❑ no In Working Order _____ Type: Battery/Electrical/None _____ Number of Detectors					

		Assistance	Difficulty	Equipment	Safety	Comments
ELECTRICAL	Electrical Cords ❑ yes ❑ no Obstructive Cords ❑ yes ❑ no Cords Used Appropriately ❑ yes ❑ no Cords Secured With Tape					
	Phone ❑ yes ❑ no Accessible Phone Locations ❑ yes ❑ no Emergency # Posted Nearby					
GARAGE	Negotiation ❑ yes ❑ no Scatter Rugs ❑ yes ❑ no Nonskid Rug Backing ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Obstructed Path ❑ yes ❑ no Automatic Door Opener ❑ yes ❑ no Steps Number _____ _____ Flooring Type					
KITCHEN	Negotiation ❑ yes ❑ no Scatter Rugs ❑ yes ❑ no Nonskid Rug Backing ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Obstructed Path _____ Flooring Type					
	Stove ❑ yes ❑ no In Working Order ❑ yes ❑ no Door Opens Easily ❑ yes ❑ no Adequate Height ❑ yes ❑ no Flammable Items Out of Range					
	Refrigerator ❑ yes ❑ no In Working Order ❑ yes ❑ no Door Opens Easily ❑ yes ❑ no Accessible Necessary Items _____ Door Handle on Left or Right _____ Type					
	Cupboards and Drawers ❑ yes ❑ no Appropriate Height ❑ yes ❑ no Doors Open Easily ❑ yes ❑ no Accessible Necessary Items					
	Sink ❑ yes ❑ no Appropriate Height ❑ yes ❑ no Appropriate Depth ❑ yes ❑ no Water Temperature <120°F ❑ yes ❑ no Faucet in Working Order					
	Dishwasher ❑ yes ❑ no In Working Order ❑ yes ❑ no Appropriate Height ❑ yes ❑ no Door Opens Easily					

		Assistance	Difficulty	Equipment	Safety	Comments
KITCHEN	Microwave ❑ yes ❑ no In Working Order ❑ yes ❑ no Appropriate Height ❑ yes ❑ no Appropriate Location ❑ yes ❑ no Door Opens Easily					
	Counters ❑ yes ❑ no Appropriate Height ❑ yes ❑ no Rough or Sharp Edges ❑ yes ❑ no Overly Cluttered					
EATING AREA	Negotiation ❑ yes ❑ no Scatter Rugs ❑ yes ❑ no Nonskid Rug Backing ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Obstructed Path _____ Flooring Type					
	Table ❑ yes ❑ no Appropriate Location ❑ yes ❑ no Adequate Height ❑ yes ❑ no Adequate Leg Clearance ❑ yes ❑ no Stable Table					
	Chair ❑ yes ❑ no Adequate Height ❑ yes ❑ no Arm Rests Present ❑ yes ❑ no Stable Chair _____ Swivels/Gliders/Rollers					
LIVING ROOM	Negotiation ❑ yes ❑ no Scatter Rugs ❑ yes ❑ no Nonskid Rug Backing ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Obstructed Path _____ Flooring Type					
	Patient's Preferred Seating ❑ yes ❑ no Adequate Seat Height ❑ yes ❑ no Arm Rests Present ❑ yes ❑ no Arm Rests Proper Height ❑ yes ❑ no Proper Seat Depth ❑ yes ❑ no Stable Seating ❑ yes ❑ no Swivels/Rocks/Wheels _____ Type of Furniture					
HALLS	Negotiation ❑ yes ❑ no Scatter Rugs ❑ yes ❑ no Nonskid Rug Backing ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Obstructed Path _____ Flooring Type					

		Assistance	Difficulty	Equipment	Safety	Comments
BEDROOM	Negotiation ❑ yes ❑ no Scatter Rugs ❑ yes ❑ no Nonskid Rug Backing ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Obstructed Path _____ Flooring Type					
	Bed ❑ yes ❑ no Adequate Height ❑ yes ❑ no Firm Mattress ❑ yes ❑ no Appropriate Location ❑ yes ❑ no Bed Rails Present ❑ yes ❑ no Electric Blanket in Use _____ Size					
	Dresser ❑ yes ❑ no Opens with Ease ❑ yes ❑ no Appropriate Height ❑ yes ❑ no Accessible Necessary Items _____ 1 or 2 Hands To Open Drawers					
	Closet ❑ yes ❑ no Opens with Ease ❑ yes ❑ no Accessible Necessary Items ❑ yes ❑ no Appropriate Rod/Shelf Height _____ 1 or 2 Hands To Open Doors _____ Size					
LAUNDRY	Negotiation ❑ yes ❑ no Scatter Rugs ❑ yes ❑ no Nonskid Rug Backing ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Obstructed Path _____ Flooring Type					
	Washer/Dryer ❑ yes ❑ no Accessible Controls ❑ yes ❑ no Accessible Necessary Items _____ Front Load/Top Load					
BATHROOM	Negotiation ❑ yes ❑ no Scatter Rugs ❑ yes ❑ no Nonskid Rug Backing ❑ yes ❑ no Adequate Lighting ❑ yes ❑ no Obstructed Path _____ Flooring Type					
	Toilet ❑ yes ❑ no Adequate Height ❑ yes ❑ no Accessible Location ❑ yes ❑ no Accessible Toilet Paper ❑ yes ❑ no Grab Bars Present _____ Adaptive Equipment Type					

		Assistance	Difficulty	Equipment	Safety	Comments
BATHROOM	Shower/Tub ❑ yes ❑ no Shower Seat Present ❑ yes ❑ no Hand Held Shower Head ❑ yes ❑ no Grab Bars Present ❑ yes ❑ no Water Temperature <120°F ❑ yes ❑ no Accessible Toiletries ❑ yes ❑ no Accessible Faucets ❑ yes ❑ no Accessible Towel Bars ❑ yes ❑ no Nonskid Surface _____ Type: Tub/Walk-in Shower _____ LxWxH of Step/Tub Wall					
	Sink ❑ yes ❑ no Appropriate Height ❑ yes ❑ no Water Temperature <120°F ❑ yes ❑ no Accessible Faucets ❑ yes ❑ no Accessible Toiletries ❑ yes ❑ no Accessible Towel Bars					
	❑ yes ❑ no Windows Open Easily ❑ yes ❑ no Stairs in Residence Number _____ Location(s) _____Stair Surface Type____ ❑ yes ❑ no Stair Railings Number _____ _____ Number of Floors _____ Residence Type: House Mobile Home Condominium Apartment Assisted-Living Facility					

Other Safety Concerns:

Equipment Needs and Recommendations:

SCORING

Home Area	Assistance Score	Difficulty Score	Equipment Score	Safety Score	Total Score
Environmental					
Electrical					
Garage					
Kitchen					
Eating Area					
Living Room					
Halls					
Bedroom					
Laundry					
Bathroom					
TOTAL					

SCORING KEY

Assistance Score	Difficulty Score	Equipment Score	Safety Score
1 = Unable 2 = Maximum Assistance (75–100%) 3 = Moderate Assistance (25–50%) 4 = Minimal Assistance (up to 25%) 5 = Contact Guard Assistance 6 = Supervised Assistance 7 = No Assistance Needed (Independent)	1 = Unable 2 = Moderately Difficult (Requires Rest Period after Activity) 3 = Minimally Difficult (Increased Effort To Perform) 4 = No Difficulty	1 = Requires Assistive Device and/or Adaptive Equipment 2 = No Equipment Required	1 = Unsafe 2 = Safe

Source: Reprinted with permission from WK Anemaet and ME Moffa-Trotter, *The User Friendly Home Care Handbook*, Learn Publications, © 1997 Wendy K. Anemaet and Michelle E. Moffa-Trotter.

FUNCTIONAL ENVIRONMENT ASSESSMENT

Hazard identification and score is based on individual's ability to maneuver around in his or her own environment. Guidelines for assessing potential hazards are listed below. Any hazardous items not listed below should be identified and scored as "other." Hazard score should reflect "potential" risk, and is based on individual's mobility performance coupled with the condition of his or her environment.

1. Into House

Ask subject to show how he gets into his house.

Access. (access to house) Check condition of stairs, railing, porch as subject goes into house. Absence of railing in the presence of stairs should be given a hazard score of at least 1 for all subjects.

Doorway. Have subject open door and assess, for example, how he handles door knobs, opening and closing of doors.

Threshold. (Crossing over into home) Note any structural items such as obstacles, steps, or raised thresholds that are potentially hazardous.

2. Living Room

Assess the following:

A. *Lighting.* Ask subject to turn on lights.
   Assess: 1. accessibility
   2. illumination
B. *Flooring.* Assess carpeting (includes throw rugs), cracks or uneven surfaces.
C. *Furniture.* Have subject sit down and get up from favorite seating. Have subject perform 1 to 2 habitual activities (eg, turn on TV or stereo/radio, and/or get book off shelf).
D. *Storage.* Assess any cabinets, shelves that subject typically uses.
E. *Other.* Cords, clutter (other furniture may be considered clutter).

3. Kitchen

Assess the following:

A. *Lighting.* Ask subject to turn on lights.
   Assess: 1. accessibility
   2. illumination
B. *Flooring.* Assess thresholds, uneven surfaces, carpeting (including throw rugs).
C. *Furniture.* Assess accessibility and difficulty maneuvering around stove, kitchen table, chairs, refrigerator.
D. *Storage.* Ask subject to open and close most commonly used cabinets (2 or 3, preferably one high and one low). Check to see if subject can reach items most commonly used. If stepping stool is needed, ask subject to demonstrate.
E. *Other.* Clutter or cords.

4. Bedroom

Assess the following:

A. *Lighting.* Ask subject to turn on lights.
   Assess: 1. accessibility
   2. illumination
B. *Flooring.* Assess carpeting (including throw rugs), cracks or uneven surfaces.
C. *Furniture.* (bed, nightstand) Have subject lie down in bed. Assess performance getting up and down from bed, turning light (if he usually does), and going to bathroom as if it were night time.
D. *Storage.* Ask subject to go to his closet and show you how he reaches for

items. Check lighting. Ask subject to go to the dresser, then open and close commonly used drawers.

E. *Other.* Cords, clutter.

5. Bathroom

Assess the following:

A. *Lighting.* Ask subject to turn on lights. Assess: 1. accessibility
2. illumination

B. *Flooring.* Any nonskid surface mats outside tub/shower, cracks, carpeting (throw rugs).

C. *Storage.* Assess accessibility of medicine cabinets.

D. *Furniture.* Assess accessibility into shower, on/off commode (toilet paper), to sink (towel racks nearby). Absence of nonskid surface in bath/shower should be given a hazard score of at least 1 for all subjects.

E. *Other.* Cords, clutter.

6. Other Relevant Pathways

Assess the following:

A. *Lighting.* Ask subject to turn on lights. Assess: 1. accessibility
2. illumination

B. *Flooring.* Assess carpets (including throw rugs), uneven surfaces, cracks.

7. Other Outside Access

Assess same as item 1 above.

SCORING SYSTEM

Hazard Score:

0 = No Risk.

1 = Low to Mild Risk. Subject may demonstrate some difficulty maneuvering around this item; appears that he would have difficulty some of the time (10% to 40% of the time the item is encountered).

2 = Moderate to High Risk. Subject has difficulty maneuvering around item or appears that he would have difficulty frequently (50% to 100% of the time the hazard is encountered).

Frequency:

Assign a frequency rating to each hazard that is encountered.

Frequency rating scale:
0 = never
1 = <1x/month
2 = <1x/week
3 = 2–3x/week
4 = 1–2x/day
5 = >2x/day

HS × F (hazard score × frequency):

Multiply frequency by hazard score. Then total the column (cumulative score of all the hazards for that pathway) to obtain the Total Score for that pathway.

Total Score (for each pathway):

S = Total score (sum of HS × F)

	Hazards	Hazard Score	Frequency	HS × F
Into House				
Access				
railing				
steps				
Door				
Threshold				
Other				
			S =	
Living Room				
Lighting				
access				
illumination				
Floor				
threshold(s)				
carpet				
surface				
Furniture				
Chair				
TV				
Storage				
cabinets				
closets				
Other				
			S =	

	Hazards	Hazard Score	Frequency	HS × F
Kitchen				
Lighting				
access	_____	_____	_____	_____
illumination	_____	_____	_____	_____
Floor				
threshold(s)	_____	_____	_____	_____
carpet	_____	_____	_____	_____
surface	_____	_____	_____	_____
Furniture				
Kitchen table	_____	_____	_____	_____
chair	_____	_____	_____	_____
Appliances				
refrigerator	_____	_____	_____	_____
sink	_____	_____	_____	_____
stove	_____	_____	_____	_____
Storage				
cabinets	_____	_____	_____	_____
Other	_____	_____	_____	_____
	_____	_____	_____	_____
				S = _____

	Hazards	Hazard Score	Frequency	HS × F
Bedroom				
Lighting				
access				
illumination				
Floor				
threshold(s)				
carpet				
surface				
Furniture				
bed				
night stand				
Storage				
closets				
dressers				
Other				
			S =	
Bathroom				
Lighting				
access				
illumination				
Floor				
threshold				
carpet				
surface				
Furniture				
commode				
sink				
tub/shower				
Storage				
medicine cabinet				
Other				
			S =	

	Hazards	Hazard Score	Frequency	HS × F
Other Relevant Pathways				
Lighting				
access	_____	_____	_____	_____
illumination	_____	_____	_____	_____
Floor				
threshold(s)	_____	_____	_____	_____
carpet	_____	_____	_____	_____
surface	_____	_____	_____	_____
Other	_____	_____	_____	_____
	_____	_____	_____	_____
			S =	_____
Other Outside Access				
Access				
railing	_____	_____	_____	_____
steps	_____	_____	_____	_____
Door	_____	_____	_____	_____
Threshold	_____	_____	_____	_____
Other	_____	_____	_____	_____
			S =	_____

Source: Reprinted with permission from JM Chandler, B Prescott, PW Duncan, et al. Reliability of a new instrument: the Functional Environment Assessment. *Physical Therapy* 1991;71 (6 suppl): S86. Copyright © Julie Chandler.

HOME SAFETY CHECKLIST

In all areas of the home, check all:

- Electrical and telephone cords
- Rugs, runners, and mats
- Smoke detectors
- Electrical outlets and switches
- Light bulbs
- Space heaters
- Woodburning stoves
- Emergency exit plan

Cords stretched across walkways may cause people to trip.

Are lamp, extension, and telephone cords out of traffic?

- Arrange furniture so that outlets are available for lamps and appliances without use of extension cords.
- If extension cords are necessary, place them on the floor against the wall so people will not trip over them.
- Move phones so that cords will not lie where people walk.

Furniture resting on cords can damage them, creating fire and shock hazards. Electrical cords running under rugs may cause fires.

Are cords out from beneath furniture, rugs, and carpeting?

- Remove cords from under furniture and carpeting.
- Replace damaged or frayed cords.

Nails or staples can damage cords, presenting fire and shock hazards.

Are cords attached to walls, baseboards, etc., with nails or staples?

- Remove nails or staples from cords.
- Check wiring for damage.
- Use electrical tape to attach cords to walls or floors.

Damage cords may cause shocks or fires.

Are electrical cords in good condition, not frayed or cracked?

- Replace frayed or cracked cords.

Overloaded extension cords may cause fires. Standard 18-gauge extension cords can carry 1,250 volts.

Do extension cords carry more than their proper load, as indicated by the ratings labeled on the cords and appliances?

- Use extension cords with sufficient wattage or amperage ratings.
- Change the cords to higher rated ones or unplug some appliances.
- Decrease loads carried on cords by unplugging some appliances.

Tripping over rugs, runners, and mats is a frequent cause of falls.

Are all small rugs, runners, and mats slip resistant?

- Remove rugs, runners, and mats that slide.
- Apply double-faced adhesive carpet tape or rubber matting to the backs of rugs, runners, and mats.
- Purchase rugs with slip-resistant backing.
- Check rugs, runners, and mats periodically to see if backing needs to be replaced.
- Place rubber matting under rugs.

In case of emergency telephone numbers for police, fire, and poison control, along with a neighbor's number, should be readily available.

Are emergency numbers posted on or near telephones?

- Write the numbers in large print and tape them to the telephones or place them where they are easily seen.

Is there access to telephones if someone falls or experiences some other emergency that prevents them from standing and reaching wall telephones?

- Have at least one telephone located where it would be accessible in the event of an accident that leaves someone unable to stand.

Many home fire injuries and deaths are caused by smoke and toxic gases, rather than fires themselves. Smoke detectors provide an early warning and can wake people in the event of fires.

Are smoke detectors present and properly working?

- Purchase smoke detectors if there are none.
- Check and replace batteries and bulbs according to manufacturer instructions.
- Vacuum the grillwork of smoke detectors.
- Replace any smoke detectors that can not be repaired.

At least one smoke detector should be placed on every floor of the home.

Are smoke detectors properly located?

- Read the instructions that come with smoke detectors for advice on the best place to install them.
- Make sure smoke detectors are placed near bedrooms, either on the ceiling or 6–12 inches below the ceiling on the wall.
- Locate smoke detectors away from air vents.

Unusually warm or hot outlets or switches may indicate that an unsafe wiring condition exists.

Are any outlets and switches unusually warm or hot to touch?

- Unplug cords from outlets and do not use switches.
- Have an electrician check the wiring as soon as possible.

Exposed wiring presents shock hazards.

Do all outlets and switches have cover plates so that no wiring is exposed?

- Add coverplates.

Bulbs of too high wattage or the wrong types may lead to fires through overheating. Ceiling fixtures, recessed lights, and "hooded" lamps trap heat.

Are light bulbs the appropriate size and type for the lamps and fixtures?

- Replace with bulbs of the correct types and wattage.
- If the wattage is unknown, replace with bulbs no larger than 60 watts.

The grounding features of space heaters provided by three-hold receptacles or adapters for two-hold receptacles are safety features designed to lessen the risk of shock.

Are space heaters which come with three-prong plugs being used in three-hold outlets or with properly attached adapters?

- Never defeat grounding features.
- If there are not any three-hold outlets, use adapters to connect three-prong plugs.
- Make sure adapter ground wires or tabs are attached to outlets.

Heaters can cause fires or serious burns if they cause people to trip or if they are knocked over.

Are small stoves and heaters placed where they cannot be knocked over, and away from furnishings and flammable materials such as curtains and rugs?

- Relocate heaters away from passageways.
- Relocate heaters away from flammable materials.

Unvented heaters should be used with room doors open or windows slightly open to provide ventilation. The correct fuel, as recommended by the manufacturer, should always be used. Vented heaters should have proper venting, and the venting system should be checked frequently. Improper venting is the most frequent cause of carbon monoxide poisoning.

Are the installation and operation instructions for kerosene heaters, gas heaters, or propane gas heaters used in the home understandable?

- Review installation and operation instructions.
- Call the local fire department with additional questions.

Woodburning stoves should be installed by qualified persons according to local building codes.

Is woodburning equipment installed properly?

- Local building code officials or fire marshals can provide requirements and recommendations for installation.

Once fires start, they spread rapidly. Since there may be a lot of confusion and little time to get out, it is important that everyone knows what to do.

Is there an emergency exit plan and an alternative exit plan in case of fire?

- Develop an emergency exit plan
- Choose a meeting place outside of the home to be sure everyone is safe
- Practice the plan periodically
- Make sure everyone is capable of following the emergency plan

---

In the kitchen check:

- Range area
- Electrical cords
- Lighting
- Step stool
- Throw rugs and mats
- Telephone area

Placing or storing noncooking equipment like potholders, dish towels, or plastic utensils on or near ranges may result in fires or burns.

Are towels, curtains, and other flammable items located away from the range?

- Store flammable and combustible items away from ranges and ovens.
- Remove any towels hanging on oven handles.
- Remove towels that hang close to burners.
- Shorten or remove curtains that could brush against heat sources.

Long sleeves are more likely to catch fire than short sleeves. Long sleeves are also most apt to catch on pot handles, overturning pots and pans and resulting in scalds.

Does the clothing worn while cooking have short or close-fitting sleeves?

- Wear short sleeves or close-fitting sleeves while cooking.
- Roll back long sleeves while cooking.

Indoor air pollutants may accumulate to unhealthful levels in kitchens where gas or kerosene-fire appliances are in use.

Are kitchen ventilation systems or range exhausts functioning properly and are they in use while cooking?

- Use ventilation systems or open windows to clear air of vapors and smoke.
- Hire a qualified person to repair broken ventilation systems.

Electrical appliances and power cords can cause shocks or electrocution if they come in contact with water. Cords can also be damaged by excess heat.

Are all extension cords and appliance cords located away from sinks or range areas?

- Move cords and appliances away from sink areas and hot surfaces.

- Move appliances closer to wall outlets or to different outlets so extension cords are not needed.
- If extension cords must be used, install wiring guides so that cords will not hang near sink, range, or working areas.
- Consider adding new outlets for convenience and safety.

Low lighting and glare can contribute to burns or cuts.

Does good, even lighting exist over stoves, sinks, and work areas, especially where food is cut or sliced?

- Open curtains or blinds unless this causes too much glare.
- Use the maximum wattage bulbs allowed by fixtures.
- Reduce glare by using frosted bulbs, indirect lighting, shades or globes on light fixtures, and/or partially closing curtains or blinds.
- Install additional light fixtures, e.g., under cabinet/over countertop lighting.

Standing on chairs, boxes, or other makeshift items to reach high shelves can result in falls.

Is there a step stool that is stable and in good repair?

- Buy step stools with handrails.
- Before climbing on any step stool, make sure it is fully open and stable.
- Tighten screws and braces on step stools.
- Discard step stools with broken parts.

In the living room/family room check:

- Rugs and runners
- Electrical and telephone cords
- Lighting
- Fireplace and chimney
- Telephone areas
- Passageways

Clogged chimneys can cause poorly burning fires to result in poisonous fumes and gases coming back into the home.

Are chimneys clear from accumulations of leaves and other clogging debris?

- Have chimneys checked and cleaned by registered or licensed professionals.
- Do not use chimneys until blockages are removed.

Burning wood can cause build-up of tarry substances (creosote) inside chimneys. These materials can ignite and result in serious chimney fires.

Has the chimney been cleaned in the past year?

- Have the chimney checked and cleaned by registered or licensed professionals.

Shadowed or dark areas can hide tripping hazards.

Are hallways and passageways between rooms and other heavy traffic areas well lit?

- Use the maximum wattage bulbs allowed by fixtures.
- Install night lights.
- Reduce glare by using frosted bulbs, indirect lighting, shades or globes on light fixtures, and/or partially closing blinds or curtains.
- Consider using additional lamps or light fixtures.

Furniture, boxes, and/or other items can be obstructions or tripping hazards, especially in the event of emergencies like fires.

Are exits and passageways kept clear?

- Rearrange furniture to open passageways and walkways.
- Remove boxes and clutter.

In the bathroom check:

- Bathtub and shower areas
- Water temperature
- Rugs and mats
- Lighting
- Small electrical appliances
- Storage areas for medications

Wet soapy tiles or porcelain surfaces are especially slippery and may contribute to falls.

Are bathtubs and showers equipped with nonskid mats, abrasive strips, or surfaces that are not slippery?

- Apply textured strips or appliqués on the floors of tubs and showers.
- Use nonskid mats in tubs, showers, and bathroom floors.

Grab bars can help getting into and out of tubs or showers and can help prevent falls.

Do bathtubs and showers have at least one (preferably two) grab bars?

- Check existing grab bars for strength and stability and repair if necessary.
- Attach grab bars through tiles to structural supports in walls or install bars specifically designed to attach to the sides of bathtubs.
- If unsure of how to install grab bars, get someone qualified for assistance.

Water temperatures above 120 degrees can cause tap water scalds.

Is the water temperature 120 degrees or lower?

- Lower the setting on hot water heaters to “low” or 120 degrees.
- If unfamiliar with hot water heater controls, have someone qualified provide help.
- If hot water heaters are controlled by landlords, ask them to lower the setting.

- If hot water heaters do not have temperature settings, use thermometers.
- Always check water temperature by hand before entering bath or shower.
- Taking baths, rather than showers, reduces the risk of a scald from suddenly changing water temperatures.

A light switch near the door will prevent people from walking through dark areas.

Is a light switch located near the bathroom entrance?

- Install light switch outside of bathroom entrance.
- Install night lights.
- Consider replacing existing switches with "glow switches" that can be seen in the dark.

Even appliances that are not turned on can be potentially hazardous if left plugged in. If it falls into water while plugged in, it could cause lethal shocks.

Are small electrical appliances such as hairdryers, shavers, and curling irons unplugged when not in use?

- Unplug all small appliances when not in use.
- Never reach into water to retrieve appliances that have fallen in without being sure they are unplugged.
- Install ground fault circuit interrupters (GFCI) in the bathroom outlets to protect against electrical shocks.

Medications that are not clearly marked and accurately labeled can be easily mixed up. Taking the wrong medications or missing dosages of necessary medicine can be dangerous.

Are all medicines stored in the containers in which they came and are they clearly marked?

- Be sure all containers are clearly marked with the contents, doctor's instructions, expiration dates, and patient's name.
- Dispose of outdated medications properly.
- Request non–child-resistant closures from pharmacists only when unable to use child-resistant closures.

In bedrooms check:

- Rugs, mats, and runners
- Electrical and telephone cords
- Areas around beds

Lamps or switches located close to each bed enable people getting up at night to see where they are going.

Are lamps or light switches within reach of each bed?

- Rearrange furniture closer to switches or move lamps closer to beds.
- Install night lights.

Burns are a leading cause of accidental death. Smoking in bed is a major contributor to this problem.

Are ashtrays, smoking materials, or other fire sources (heaters, hot plates, tea pots, etc.) located away from beds or bedding?

- Remove sources of heat or flame from areas around beds.
- Do not smoke in bed.

"Tucking in" electric blankets or placing additional covers on top of them can cause excessive heat build-up, which can start fires.

Is anything covering the electric blanket when in use?

- Use electric blankets according to manufacturer instructions.
- Do not allow anything on top of the blanket while it is in use (e.g., other blankets, pets, etc.).
- Do not set electric blankets so high that they could burn someone who falls asleep while they are on.

Never go to sleep with heating pads if they are turned on because they can cause serious burns even at relatively low settings.

Are heating pads turned on while people sleep?

- Turn heating pads off before going to sleep.

In case of emergencies, it is important to be able to reach the telephone without getting out of bed.

Is there a telephone close to the bed?

- Keep a telephone near the bed.

In the basement, garage, workshop, and storage areas check:

- Lighting
- Fuse boxes or circuit breakers
- Appliances and power tools
- Electrical cords
- Flammable liquids

Good lighting reduces the chances of injuries when working with power tools.

Are work areas, especially areas where power tools are used, well lit?

- Install additional lighting.
- Avoid working with power tools in areas with poor lighting.

Basements, garages, workshops, and storage areas can contain many tripping hazards and sharp or pointed tools that make falls even more hazardous.

Can people turn on the lights without first having to walk through dark areas?

- Keep an operating flashlight handy.
- Have an electrician install switches at each entrance to dark areas.

Replacing correct-size fuses with larger-size fuses can present serious fire hazards. If the fuses in the box are rated higher than that intended for the circuit, excessive current will be allowed to flow and possibly overload the outlet and house wiring to the point that fires can begin.

If fuses are used, are they the correct size for the circuit?

- Be certain that correct-size fuses are used.
- If unsure of what size fuses should be used, hire an electrician to identify and label the sizes to be used.

Power tool safety features reduce the risk of electric shock.

Are power tools equipped with three-prong plugs or marked to show that they are double insulated?

- Use properly connected three-prong adapters for connecting three-prong plugs to two-hole receptacles.
- Consider replacing old tools that have neither three-prong plugs nor double insulation.

Power tools used with guards removed pose a serious risk of injury from sharp edges or moving parts.

Are power tool guards in place?

- Replace guards that have been removed from power tools.

Improperly grounded appliances can lead to electrical shock.

Have the grounding features on any three-prong plugs been defeated by the removal of the grounding pin or by improper use of adapters?

- Check with a service person or an electrician if in doubt of grounding status.
- Do not use appliances that have had grounding pins removed.

If containers are not tightly closed, vapors from volatile liquids may escape that may be toxic when inhaled.

Are containers of volatile liquids tightly capped?

- Check containers periodically to make sure that they are tightly closed.

Gasoline, kerosene, and other flammable liquids should be stored out of living areas in properly labeled, nonglass safety containers.

Are gasoline, kerosene, paints, solvents, or other products that give off vapors or fumes stored away from ignition sources?

- Remove these products from the areas near heat or flame such as heaters, furnaces, water heaters, ranges, and other gas appliances.

For all stairways check:

- Lighting
- Handrails
- Condition of steps and coverings

Stairs should be lighted so that each step, particularly the step edges, can be clearly seen while going up and down stairs. The lighting should not produce glare or shadows along the stairway.

Are stairs well lit?

- Use the maximum wattage bulbs allowed by light fixtures.
- Reduce glare by using frosted bulbs, indirect lighting, shades or globes on light fixtures, or partially closing blinds and curtains.
- Have a qualified person add additional lighting fixtures.

Even if familiar with the stairs, lighting is an important factor in preventing falls. People should be able to turn on the lights before using the stairway from either end.

Are light switches located at both the top and bottom of the stairs?

- If no other light source is available, keep an operating flashlight in a convenient location at the top and bottom of stairs.
- Install night lights at nearby outlets.
- Consider installing switches at the top and bottom of the stairs.

Worn treads or worn or loose carpeting can lead to insecure footing, resulting in slips or falls.

Do the steps allow secure footing?

- Try to avoid wearing only socks or smooth-soled shoes or slippers when using stairs.
- Make certain the carpet is firmly attached to the steps all along the stairs.
- Consider refinishing or replacing worn treads or replacing worn carpeting.
- Paint outside steps with paint that has rough textures, or use abrasive strips.

Even small differences in step surfaces or riser heights can lead to falls.

Are steps even and of the same size and height?

- Mark any steps that are especially narrow or have risers that are higher or lower than the others.

Worn or torn coverings or nails sticking out from coverings could snag feet or cause people to trip.

Are the coverings on the steps in good condition?

- Repair coverings.
- Remove coverings.
- Replace coverings.

Falls may occur if the edges of the steps are blurred or hard to see.

Can people clearly see the edges of the steps?

- Paint edges of outdoor steps white to see them better at night.
- Add extra lighting.
- If planning to carpet stairs, avoid deep pile carpeting or patterned or dark-colored carpeting that can make it difficult to see the edges of the steps clearly.

People can trip over objects left on stairs, particularly in the event of emergencies or fires.

Is anything stored on the stairway, even temporarily?

- Remove all objects from stairways.

Source: Adapted from United States Product Safety Commission. Publication #4701, *Safety for Older Consumers: Home Safety Checklist,* June 1986.