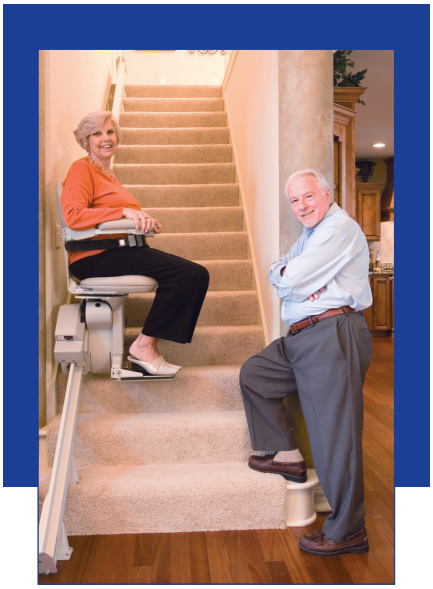
FCS4-414

Home Accessibility

One Size Fits All

Amy Hosier, Family Sciences, and Ashley Osborne, Environmental and Natural Resource Issues



Home accessibility should be treated like auto insurance: We purchase it even though we do not plan to have an accident.

We spend most of our time in our homes, so they should make us feel safe, secure and as independent as possible—regardless of age or ability. Many homes, however, are not built with disability and aging in mind. Lack of ease and inaccessible features create challenges to meeting daily needs. Such barriers can eliminate housing options or trigger an unwanted or premature move to senior housing or institutionalized care, which can limit independence, create emotional upset, and cause financial burden.

Well-designed, safe and accessible homes can be built or existing homes modified to accommodate the needs of all people, regardless of age, height, ability or circumstance. A well-designed home promotes independence and allows us the satisfaction of being able to stay in control and remain at home as we age or as our needs change.

Aging in Place

A driving force in home accessibility is the aging population. Home accessibility makes it possible for us to stay in our homes despite chronic disease or disability. Aging in place is a term used to describe living in one's own home, regardless of the type of residence, for as long as confidently and comfortably possible. To successfully age in place, services and/or support, including accessible, safe housing, must be available to meet needs that change over time. Because aging is a lifelong process and because we are susceptible to accidents or disability at any time, thinking about home accessibility is wise any time we build, buy, or renovate a home.

Universal design is the concept of designing products, services and environments that can be used by as many people as possible regardless of age, ability or circumstance. Universal design contributes to making homes and communities accessible by applying seven principles that make living easier and safer. Those principles are:

- **Equitable Use:** The design is useful and marketable to people with diverse abilities.
- **Flexibility in Use:** The design accommodates a wide range of individual preferences and abilities.
- **Simple/Intuitive Use:** The design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.
- **Perceptible Information:** The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

- **Tolerance for Error:** The design minimizes hazards and the adverse consequences of accidental or unintended actions.
- **Low Physical Effort:** The design can be used efficiently, comfortably and with minimum fatigue.
- **Size/Space for Approach and Use:** The design provides appropriate size and space for approach, reach, manipulation and use regardless of the user's body size, posture or mobility.

A universally designed home that follows the principles addresses the physical and emotional changes that accompany the normal aging process or disability in a seamless, almost undetectable manner. Projects to make your home more accessible range from complete kitchen or bathroom remodels to weekend do-it-yourself projects.

Common universal design features

Entryway/Outdoors

- ☐ At least two no-step entries into the house
- ☐ 36-inch-wide level walkways leading to/from the house with little or no slope
- ☐ Low-maintenance trees and shrubs
- ☐ Covered entry ways or porches for protection from rain and snow
- ☐ Easy to operate locks, such as keyless locks that are operated with remotes or keypads
- ☐ Peepholes at heights for adults, children and people in wheelchairs
- ☐ Windows that require minimal effort to open and close
- ☐ Doors with lever handles

General Interior Features

- ☐ A main-floor kitchen, full bath, laundry, and sleeping room (with plenty of space for maneuvering)
- ☐ An open floor plan with three-foot-wide passageways free of hazards and steps and connecting all rooms on the main floor
- ☐ Entryway doors that are 36 inches wide, interior doors with widths of 34 to 36 inches, and hallways measuring 42 to 48 inches wide
- ☐ Quality, non-glare lighting
- ☐ No raised thresholds
- ☐ Low-pile or tightly-woven carpet
- ☐ Light controls, electrical outlets and thermostats that are easily reachable for a person in a seated position
- ☐ Lever-style door handles that don't require grasping or twisting to operate
- ☐ Anti-scald single-lever faucets
- ☐ Rocker-style light switches
- ☐ Accessible fire and smoke alarms
- ☐ Clear floor space 5-foot by 5-foot for turning a wheelchair or scooter

Bathroom

- ☐ Properly installed grab bars or reinforced bathroom walls that allow for the future addition of grab bars
- ☐ 5-foot by 5-foot space for maneuverability
- ☐ Walk-in shower stall with little or no-threshold that includes a built-in bench or seat
- ☐ Hand-held showerhead on a slide bar
- ☐ Non-slip floors, including in the bathtub or shower
- ☐ No throw rugs
- ☐ Raised toilet seats (17 to 19 inches from the floor to the top of the seat for adults; lower for children)
- ☐ Mirrors placed for both standing and sitting positions
- ☐ Telephone jacks

The Universal Design Living Laboratory (www.udll.com).

Kitchen/Laundry

- ☐ Side-by-side refrigerator with extra freezer space and water/ice in the door.
- ☐ Appliance controls that are easy to read and reach
- ☐ Raised dishwasher, oven and frontloading washer and dryer
- ☐ Easy-access kitchen storage (pull-out shelves, adjustable-height cupboards, lazy susans)
- ☐ Multi-level kitchen countertops with open space beneath so a person can work while seated
- ☐ Task lighting over sink, stove and other work areas
- ☐ Easy-to-grasp cabinet knobs or pulls

Bedroom

- ☐ Telephone and light near the bed
- ☐ Ample maneuvering space around the bed
- ☐ Well-lit closet with rods accessible from a standing or sitting position

Home accessibility, including universal design, makes living easier no matter what stage of life, and it enables us to live as independently as possible in the face of disability and aging. In all residential situations, it is important to assess individual needs and determine which modifications and assistive technologies are most appropriate. By making small changes today, we can feel safe knowing we have prepared for our changing needs in the future.

Related Extension Publications

Home Accessibility: Assistive Technology (FCS4-413)

Home Accessibility: Bedrooms (FCS4-415)

Home Accessibility: Bathrooms (FCS4-416)

Home Accessibility: Kitchens (FCS4-417)

Home Accessibility: Resources (FCS4-418)

Additional Universal Design Checklists

AARP (2011). Home Safety Checklists: A Little Planning and—These Home Safety Tips—Can Make All the Difference. www.aarp.org/home-garden/livable-communities/info-07-2011/make-your-home-a-safe-home.html.

Northwest Universal Design Council: Environments for All (2009). Home Checklist. Seattle, WA. www.environmentsforall.org/home_checklist.htm.

Shared Solutions America: Great Ideas for Better Living (2012). Smart Design Liveable Homes. www.livablehomes.org/checklist.html.

Practical Guide to Universal Home Design: Convenience, Ease, and Livability (2002). East Metro Seniors Agenda for Independent Living (SAIL), St. Paul, MN. www.environmentsforall.org/docs/practicalguide.pdf.

Additional information about universal design

Center for Universal Design (2010). North Carolina State University. www.ncsu.edu/project/design-projects/udi/center-for-universal-design/.

Builders and remodelers near you

National Association of Home Builders' Remodelers (Universal Design) www.nahb.org/page.aspx/category/sectionID=433.

Certified Aging-in-Place Specialist (CAPS): www.nahb.org/directory.aspx?directoryID=188.

References

AARP (2011). Home Safety Checklists: A Little Planning and--These Home Safety Tips--Can Make All the Difference. www.aarp.org/home-garden/livable-communities/info-07-2011/make-your-home-a-safe-home.html.

AARP (2011). With Universal Design, One Size Fits All. Retrieved January 30, 2012 www.aarp.org/home-garden/livable-communities/info-07-2011/what-is-universal-design.html.

HousingPolicy.org (2010). Build or Modify Homes to Universal Design or Visitability Standards. Retrieved January 29, 2012 from www.housingpolicy.org/toolbox/strategy/policies/home_mods.html

North Carolina State University Center for Universal Design (2010). Principles of Universal Design. Retrieved February 10, 2012 www.ncsu.edu/project/design-projects/udi/center-for-universal-design/.

Northwest Universal Design Council: Environments for All (2009). Home Checklist. Retrieved February 10, 2012 www.environmentsforall.org/home_checklist.htm.

Practical Guide to Universal Home Design: Convenience, Ease, and Livability (2002). East Metro Seniors Agenda for Independent Living (SAIL), St. Paul, MN. www.environmentsforall.org/docs/practicalguide.pdf.

Shared Solutions America: Great Ideas for Better Living (2012). Smart Design Liveable Homes. Retrieved February 12, 2012. www.livablehomes.org/checklist.html.

Traywick, L. S. (2007). Universal Design and Aging in Place Extension Program Curriculum. www.arfamilies.org/health_nutrition/aging_place/

Page 1 photo with permission from: Electra-Ride™ Elite Stairlift by Bruno Independent Living Aids

Page 2 photo with permission from The Universal Design Living Laboratory (www.udll.com).

Issued 8-2012