Creating A Dementia-Friendly Home: Adapting the Home Environment

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Main Concept #1

Often it is the design of the home itself that creates unnecessary disabilities

How user friendly is your home?
What stores do you find easy/difficult to navigate?
Why?
Seemingly insignificant home features can have powerful and disabling effects

Example:
Negotiating a walker over a doorsill can be similar to climbing Mount Everest.
The design of today’s homes, including the products contained in them, are based on the characteristics of young healthy adults, rather than adults over the age of 65.

Most dwellings can be hostile to the normal physical and sensory changes that older adults encounter.
Many people resist home modifications and “Assistive Technology” products designed for easier use.

Many elders will risk pain and injury rather than use a device that stigmatizes them as “disabled” or “old”.

- Using a shower rod or towel rack instead of a grab bar
- Holding onto furniture when walking instead of using a walker
The Alzheimers Assoc. identifies 5 key areas of function affected

• **Judgement**- *forgetting how to use household appliances*
• **Sense of time and place**- *getting lost in one’s home*
• **Behavior**- *becoming easily confused, suspicious or fearful*
• **Physical ability**- experiencing difficulty with balance or depending on a walker/wheelchair for mobility
• **Senses**- experiencing changes in vision, hearing, sensitivity to temperature, depth perception
Main Concept #3

Everyone’s needs and abilities are different

Some individuals with dementia may experience changes in all of these 5 key areas at once, while others may never undergo a change in behavior but experience a drastic decrease in physical abilities.

In addition:

• We each bring with us different values, aesthetics, interests
• We each have different physical and emotional strengths and weaknesses, sensory preferences
Why People With Dementia Fall?

Persons with dementia fall up to three times more often than individuals without cognitive impairments.

- **Inability to housekeep, maintain a home, or hoarding behavior** - Can create mounds of clutter and other home hazards.
- **Reduced attention, depth perception and/or peripheral vision** - Can make certain objects, like doorsills, glass and/or small tables, unnoticed and easily tripped over.
- **Becoming easily agitated** - Storming off or striking out and losing balance.
- **Fear of falling and consequently, not walking much** - No exercise leads to weakened muscles and stiff joints.
- **Impaired memory and judgment** - Can cause such risky behaviors as forgetting to use a cane or walker when he/she cannot walk without one.
- **Changes in perception and balance** - Can cause problems such as:
  
  Knowing where to place one's feet going up or down stairs

Other factors affecting fall risks: certain **medications, poorly fitting shoes.**
General Safety Principles

• **Think prevention.** It’s difficult to predict what a person with dementia might do. Checking for safety will help control potential problems that may create hazardous situations.
  Examples: Smoke/Carbon Monoxide Detectors, First Aid Kit, keep spare key outside the home

• **Minimize danger.** Minimizing danger can maximize independence. A safe environment can be a less restrictive environment where the person with dementia can experience increased security and more mobility.
  Examples: Conceal medications, cleaning chemicals, weapons, power tools

• **Adapt the environment.**
  *It is more effective to change the environment than to change most behaviors.*
  You can make changes in an environment to decrease the hazards and stressors that accompany these behavioral and functional changes.
5 Design Goals in Creating a Dementia – Friendly Home

1. **Regulating Stimulation**
   People with dementia can’t cope with as much going on around them at once as other people can.

Examples:
- Unnecessary noises.
- Glare (from sunlight or exposed light bulbs)
- Busy visual environments - Lots of clutter
1. Regulate Stimulation: Good Lighting

Good lighting supports our daily tasks and safe movement throughout the home.
The average 60-year-old needs three times more light to read than the average 20-year-old.

1. Task Lighting

2. Environmental/Ambient Lighting
Task Lighting

Light shining directly onto the activity in which the individual is engaged

• **Lamps**
  Larger lamps with wide-bottom shade openings will light a greater area, increasing overall lighting. Adjust the lamp shade or height of the table to keep the light out of the person’s eyes.

• **Gooseneck adjustable lamps**

• **Under cabinet lighting**
Environmental/Ambient Lighting

• **Floor lamps**
  Torchieres are very effective floor lamps as they direct light upwards toward the ceiling, creating indirect, easy-on-the-eyes lighting.

• **Night lights**
  Night lights can increase safety at night, but make sure they are not too bright— they may disturb sleep, confuse night/day. LEDs won’t disturb sleep, are inexpensive.

• **Window Treatments**
  Filter daytime light with sheers or blinds. Close window treatment before it gets dark to decrease nighttime agitation, and turn on indoor light.
Lighting Example #1: Corridor

Bad

Good
Example: Lighting at Night

An LED strip acts as a nightlight and eliminates shadows on the floor when used with overhead lights.

*Photo Credit: Universal Design Tips: Lessons Learned from Two UD Homes*
1. Regulate Stimulation:

Use Color & Contrast

Use color to enhance your ability to see important objects or areas throughout the home.

Examples

- Outline the edges of steps, coffee tables, doorways, and bathtubs with colored plumber’s tape.
- Use bright red or white against dark wooden steps, or dark blue against a white wall.
Ramp or Stairs?
Color Contrast Example
1. Regulate Stimulation: Reduce Glare

• Glare results when light shines directly into the eyes or reflects off polished surfaces such as tabletops and floors.

• Glare is a problem for many people; it not only causes eye discomfort, but interferes with the ability to see.

• Glare can be controlled by:
  Covering windows with blinds or drapes
  Covering bulbs with lamp shades
  Using even levels of light throughout a room
  Using only matte, not polished, finishes on furniture or floors
Glare Example

Bad

Good
1. Regulate Stimulation: Avoid Clutter
Example: **Avoid Clutter & Improve Color Contrast**

Before

After
5 Design Goals in Creating a Dementia – Friendly Home

2. Maximize Orientation

- **Wayfinding** - Helping someone find their way
- **Sense of time** - Helping someone to be aware of the time of day or whether they have completed a task.
Orientation: **Wayfinding**

- **Wayfinding** helps people with dementia move independently from one spot to another. It refers to ‘what people see, what they think about and what they do when finding their way from one place to another’.

- **Wayfinding** makes use of cues such as paths, lighting, color schemes and sounds and signage.

- Use color contrast techniques
Wayfinding Examples

Lack of a clear path through the room.
Wayfinding Examples

Bad

The doors at the end of this hallway attract attention and invite exit seeking.

Good

A series of visually interesting quilts distract residents and help turn them in the direction of the dining room instead of the exit doors.

Orientation: Sense of Time
3. Safety

Providing a safe environment for someone with dementia is the basic strategy of home modification.

The Challenge: To not place unnecessary restrictions on the person with dementia, but to match the level of safety intervention with their abilities and disabilities.
3. Area of Safety: Furniture

For a person with severe arthritis, a chair that is too deep and too low would be a greater safety hazard than for an adult with full independent movement.
Furniture Guidelines: CHAIRS

Chair Features to Look For:

- **Extended Side Arms**
- **18 inch seat height** - This allows the person's knees to be level with his or her hips.
- **19 to 22 inch seat depth** - This makes it easier for the person to scoot to the front of the chair before getting up.
- **Supportive Cushion** - This provides a stable base from which to rise.
- **Use bright colors and bold contrasts** - Some individuals with dementia have severe problems with depth perception and need a strong color contrast between the seat and the flooring in order to clearly see the chair's outline.
- **Opening underneath** - This allows the person to position both feet slightly under the knees before rising, giving the person the best position for maximizing leg strength while getting up from the chair.
Furniture Guidelines: BEDS

Bed Features To Look For:

• Sitting at the edge of the bed, **feet should be flat on the floor and knees should be in a straight line with the hips.** This allows the person to shift his/her weight forward over the feet, making it easier for the leg muscles to help lift the person to the standing position.

• For many people, the most suitable bed height is **18 inches** (same height as a chair seat). If the person is quite short or tall, adjust height accordingly.

• Consider a **medium-firm** mattress

• A **bed handle** can help a person stand and get out of bed – it offers a stable surface to hold onto and push off from and it can also help with balance.
3. Area of Safety: Flooring

People with dementia have special flooring needs

- Many develop gait and balance problems and walk with a shuffle. Someone who shuffles/uses a walker can easily trip on area carpets.

- Low vision and perceptual problems can increase the risk of falls. A dark carpet border may be perceived as a hole, and the person may attempt to step over the border. A patterned carpet can cause uncertainty of where to step.

- **Glossy or waxy finishes** are slippery underfoot, and shiny floors reflect glare, making it harder to see.

- As the person loses housekeeping skills, clutter can be easily tripped over – like shoes, newspapers, and extension cords.
Flooring Examples

Image 2: Example of a bad transition: High threshold and high color contrast in the floor which can be perceived as level changes.

Image 3: Example of a good transition: Level and low contrast change at the threshold.
3. Area of Safety: Stair Handrails

The Person
- Needs adequate strength
- Needs balance skills

Handrails
- Install on all stairs, 32 - 36" from floor to top of rail
- Install on both sides so person can:
  - use either arm
  - use both handrails on narrow staircase
- Color-contrast rails & wall
- Extend past last step
3. Area of Safety: Stair surfaces

General Guidelines for Stairs

• Consider using color to contrast the risers from the steps to better distinguish the step
• 2" non-slip paint or tape along edge of step
• Adequate lighting
• Avoid clutter
• Choose carpeting with a tight loop, or a dense flat carpet, without any patterns
• The color on the landings should be different from that on the stairs so person can see where the steps start and stop.
Stair Examples

AVOID: same color carpeting for the stairs and the top and bottom landing.

This makes it hard to tell where the steps end and the landings begin; many people may think there's another step and a fall can occur. Avoid very dark colors on the steps and landings, as the person may think this area is a hole into which they may fall.
3. Area of Safety: Bathtub

To reduce the risk of slipping inside the tub, use either nonskid bath mats or bath strips.

**Nonskid Bathtub Mats**
- Cover more of the tub floor surface than bath strips.
- Dementia-related depth perception issues can cause fear of falling/drowning because they can't see where the tub floor is.
- A colorful bath mat, color contrasted to the tub walls, can help the person see the bathtub floor better.

**Bath Strips**
- An alternative is to use bath strips. Be sure to place close together (3 inches or less), avoid patterns, reapply as needed.
3. Area of Safety: Grab Bars & Bathing

Grab Bar basics:

- Grab bars may be installed in various locations, depending on the bathroom space and the person's needs.

- If the person is able to step into the tub or shower from a standing position, a grab bar at the tub entrance is helpful so the person has a safe support to hold onto while climbing over the tub wall.

- A vertical bar is frequently preferred over a horizontal bar because it is easier for arthritic hands to grip.

- Makes sure grab bars are easy to grip with non-slip surface.
Bathing Grab Bars (cont’d)

• On the long tub wall, a grab bar on an angle is generally recommended for help when getting up from the tub floor or from a bath chair.

• Make sure it slopes up in the direction of the showerhead from the person's seated position.
3. Area of Safety: Toilets

Image 9: Grab bars located at the back and side of the toilet are most useful for individuals who use a side-slide method to transfer.

Image #10: The fold-down grab-bars on each side of the toilet may be more supportive for individuals who are capable of weight-bearing, especially for older adults who often experience hemiplegia, or weakness on one side.
4. Design Goal: Control

Challenge: Finding the right balance:

• Supporting the person with dementia in having some sense of control and the opportunity to make choices
  Examples: Choosing clothing, food, activities

• Supporting the caregiver in their increasing need to monitor and sometimes control where the person is and what they are doing.
  Examples: Wandering, preventing elopement
Examples of Control

Preventing elopement: Camouflaged Doorways
5. Design Goal: Maintain Independence

People with dementia are constantly faced by what they can’t do anymore. To maintain self esteem and quality of life, it’s important to enable the ability to do personal care, chores and activities as independently as possible.

Example #1: Using color contrast in the bathroom

Note: Some evidence suggests that red is more easily perceived by people with Alzheimer’s type dementia.
5. Design Goal: Maintain Independence

Example #2 – Labeling
KEEP IT SAFE