Home Safe Home: Adapting the Home for Those with Neurological Diagnoses

How to improve safety and decrease risk for falls in the home

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Mission Statement

Bancroft provides opportunities to children and adults with diverse challenges to maximize their potential.
Objectives

• Achieve insight on the importance of fall prevention and home safety.
• Identify hazards in the home which increase the risk for falls.
• Identify essential components of a comprehensive home assessment.
• Examine unique products for accessible home modifications and safety.
Why Fall prevention?

- Each year, millions of adults aged 65 and older fall. Falls can cause moderate to severe injuries, such as hip fractures and head traumas, and can increase the risk of early death;
- 2.5 million non-fatal falls were reported in 2013.

http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html
Fall Statistics

• 1/3 of people 65 year old and older fall each year.
• Every 29 minutes an elderly person dies from a fall injury.
• In 2012, the total cost of fall injuries was 30 billion dollars. This amount is estimated to double over the next five years.

http://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html
Fall Statistics (continued)

- Twenty to thirty percent of people who fall suffer moderate to severe injuries such as lacerations, hip fractures, and head traumas. These injuries can make it hard to get around or live independently, and increase the risk of early death.

http://www.cdc.gov/homeandrecreational_safety/falls/adultfalls.html
Statistics (continued)

- In 2008, almost 20,000 older adults died from injuries due to a fall;

- In 2000, 46% of fatal falls among older adults were due to a Traumatic Brain Injury;

- Many people who fall, even if they are not injured, develop a fear of falling. This fear may cause them to limit their activities, which leads to reduced mobility and loss of physical fitness, and in turn increases their actual risk of falling.

http://www.cdc.gov/homeandrecreational safety/falls/ adultfalls.html
Fall

Increased risk for falling

Fear of Falling again

Decreased muscle strength and balance

Less activity
Basic Fall Prevention Recommendations

• Exercise regularly: it is important that the exercises focus on increasing leg strength and improving balance.

• Ask the doctor or pharmacist to review your medications—both prescription and over-the-counter—to identify medications that may cause side effects or interactions such as dizziness or drowsiness.

• Have your vision checked by an eye doctor at least once a year and update eyeglasses to maximize vision.

• Ensure proper hydration and nutrition.

➢ **Make the home safer by reducing tripping hazards.**

Fall Risks

Factors that increase risk of falling that cannot be changed:
• Age;
• Previous falls.

Factors that increase risk for falling that possibly can be changed:
• problems walking or moving around;
• taking 4 or more medications;
• foot problems or unsafe footwear,
• blood pressure dropping too much on getting up (orthostatic hypotension);
• problems with vision;
• tripping hazards at home.

http://www.fallprevention.org/pages/clinicians.htm
Who is involved in a home assessment?

- Patient;
- Family members;
- Care givers;
- Occupational therapist – Physical Therapist;
- Nurse or home health aide.
Assessment

- Rebuilding Together Home Safety Checklist

- Home Safety Self Assessment Tool (HSSAT)
  agingresearch.buffalo.edu/hssat;

- A therapist can ask patients to take pictures or videos with their phones; take measurements;
- The therapist can ask family members to fill out check list when taking patient home for visit.
Outdoor (Exterior / Entrance)

- Repair uneven or broken up sidewalks;
- Keep bushes and foliage pruned;
- Keep sidewalks clear of clutter, ice, or snow;
- Identify the most accessible home entrance and exit;
- Be aware of ditches between sidewalk and grass. (Install a “mini” fence or border).
Outdoor (continued)

- Good lighting and/or light sensors;
- If there is a step to enter: railing on 1 or both sides, or a ramp with railing;
- Color contrast railing if impaired vision;
- Consider removing the screen door;
- Have a small bench or table by entry to home to place items on while unlocking and opening door;
- Install a grab bar to step through doorway;
Hallway

- Mat with level edges and rubber backing;
- Level threshold (threshold ramp);
- Proper lighting;
- A chair or bench to sit on when managing shoes or coat;
Living Room

- Proper seating: consider height of chairs and couches, does it have arm rests, firmness of cushions;
- If furniture is too low: install furniture risers;
- Place pillow or ply wood under seat cushion if it is too soft;
- Place non slip rubber pads on legs of furniture if furniture is sliding on wood floor;
- Install “swivel stopper base” on swivel chairs or rocking chairs to block the motion;
Living Room (continued)

- Avoid furniture that is bulky, has sharp edges, and with glass;
- Remove the coffee table to accommodate an assistive device and make it easier to navigate around;
- Extension cords should be anchored to base board or behind furniture.
Living Room (continued)

- Light switch access: a cordless switch, touch sensitive, remote control, motion sensor lights;
- Electric sit to stand chair;
- Don’t clean floors with wax and keep wood floors swept to decrease slipping on dust.
Kitchen

- Have commonly used items within easy reach, can use “lazy susan” and avoid step stools;
- Avoid carrying items; instead, slide items across counter tops, use push cart, a walker basket or tray;
- Keep counter tops clear to assist with mobility and standing;
- Proper lighting and switch access;
- Front controls on stove to avoid reaching too far (if no children around).
Bedroom

• Look at style of furniture and mattress; height of mattress;
• Remove wheels of the bed frame; use non slip pads on bed legs if the bed moves on wood or tile floors;
• Arrange the furniture so it is easy to walk around and functional;
• Accessible lighting to the entrance of bedroom and within reach from the bed (touch lamp, wireless light switch, remote control, motion sensor night lights);
Bedroom (continued)

• Keep supportive, rubber sole shoes, or non slip socks bedside;
• Avoid silk sheets to prevent sliding out of bed;
• Remove clutter from floor, especially around bed and path way to the bathroom;
• Use a bedside commode or urinal for middle of the night toileting needs;
• Use a sturdy chair with armrests or a bench for getting dressed;
• Consider a transfer bar or a pole attached to the floor or bed frame.
Bedroom
Bathroom

- Grab bars around the toilet and tub or shower;
- Grab bars in place of towel rods and toilet paper holder;
- Consider a raised toilet seat, shower chair, transfer tub seat, or Versa Frame;
- Keep a long handled reacher hooked on the wall in the bathroom to pick up items that have fallen, or to assist with dressing.
Bathroom (continued)

• Ensure proper lighting;
• Consider a toilet mat with non-slip bottom to prevent slipping from urine;
• Place non slip treads in front of the commode for safe transfers;
• Place textured strips or rubber mat in shower or tub.
Bathroom (continued)

• Wear open toe rubber tread sandals in shower to prevent slipping;
• Shower curtain instead of glass door preferred (or non shatter sliding door);
• Cut shower curtain around transfer tub seat to decrease water getting on the floor;
Bathroom (continued)

• Keep counters and all grab bars free of clutter;
• Remove area rugs. If must, use a good rubber back mat with double sided carpet tape.
• Clear plastic shower curtain to allow more light in the space;
• Ensure enough space to move around in the bathroom with assistive device;
Bathroom
Stairs

• Make sure the railing is sturdy and at least on one side, (prefer 2 railings);
• Length of the railing should match the length of stairs;
• Light switch at top and bottom of stairs;
• Consider a “Stair Glide”;
• Arrange for main floor living (avoid stairs);
Stairs (continued)

• Avoid carrying items up and down stairs;
• For visual deficits, put a bright color on the edge of each step;
• Improve traction: use textured paint or abrasive strips.
Things To Consider (Visual Deficits)

- Yellow, orange, and red colors are more alerting for safety awareness; use duct tape for contrast;
- Alarm motion sensor to alert for unsafe situations;
- Frosted bulbs to decrease glare, use shades or blinds to adjust amount of natural light, and use lamp shades to decrease direct light;
Things to Consider (Mobility and Balance Deficits)

- Wear shoes or non-slip socks all the time in the home;
- Wear pants that fit properly (not too long and stay on hips);
- Place “safe” chairs around the home to sit as needed;
- Install grab bars throughout the home (hallways, closet);
- Bedside commode or urinal positioned next to the bed;
Things to Consider (General Safety)

• Telephone with answering machine (avoid rushing to the phone);
• Carry cell phone at all times in a pocket, fanny bag, clip on pants, or a bag that crosses the chest;
• Consider an emergency alert pendant (Life Alert).
General Safety (continued)

• Have a fall plan (can practice what to do in therapy);
• Move slowly from lying down to sitting, and sitting to standing (due to changes in blood pressure);
• Have a 4 foot path without obstacles;
Things To Consider (Pets)

• Pet that is well trained to sit and not jump or pull;
• Bell on collar of cat / dog to alert where animal is and decrease tripping;
• Have one room or space for pet toys;
• Absorbent mat for water and food dish;
• Be aware of pet “accidents” that can be slippery;
Miscellaneous hazards

- Children (toys);
- Oxygen (different color tubing);
- Basement;
- Office - Desk chairs;
- Step stools;
- Foot wear (not too much traction, not too little traction); “YakTrax” for ice and snow;
- Deck or porch access with sliding glass door;
Barriers to implementation of home modifications

• Decreased cognition;
• Decreased insight in to limitations;
• Denial of safety risks;
• Not accepting change or advise;
• Appearance;
• Dignity.
Performance Outcome Measures

• Utilize fall assessments to determine fall risk:
  ➢ Tinetti balance and gait assessment;
  ➢ Berg Balance Test;
  ➢ Functional Reach Test;
  ➢ Dynamic Gait Index.
Performance Outcome Measures

• Home Safety Assessment:
  ➢ *The Canadian Occupational Performance Measure (COPM)* is an individualized measure designed for use to detect self-perceived change in functional performance problems over time;
  ➢ *Housing Enabler* screening tool (Sweden).
EDUCATION RESOURCES

- CDC.gov
- NCOA.gov
- Fallprevention.org
- NAHB.org
- Homemods.org
- Asaging.org
- AOTA.org
- Nia.nih.org
- AARP.org
- Rebuildingtogether.org
A CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults, 2010.

Certifications

• **CAPS**: Certified Aging in Place Specialist;
• **ECHM**: Executive Certificate in Home Modification;
• **SCEM**: Specialty Certification in Environmental Modifications.
Research

- Research indicates that treating and correcting specific health problems reduces the rate of falling by more than 30%. (Tinetti, et al);
- Multi factorial interventions have best result. (Tinetti, et al);
- After one fall: increased benefit of education and home modifications. (Lord, et al);
  http://www.fallprevention.org/pages/clinicians.htm
- AOTA Evidence based research (see reference list)
  aota.org
Evidence based research


EBR continued


Thank you!
Questions?

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