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Some Home Renovation Thoughts for us "Old Folks"!

Staying Independent & Safe In Our Homes

Ok, so measured in dog years, I'm only 10 years old!! So why are people referring to me as an "Old Guy" and "Senior Citizen"? Kinda' upsets me that I'm being classified because of my age!

However, if you pay attention to health and medical news, you won't be surprised to learn that people are living longer, healthier lives today than they were just a few decades ago. As a result, senior populations are expanding while, unfortunately, experiencing health issues common amongst the elderly: arthritis, diabetes, osteoporosis and hearing and vision loss. Most seniors will reach a point in their lives when they need specialized environments and Universal Floor Designs to safely retain their independence

As Seniors, we all should be thankful for the thoughtful products designed to aid independent living and consumer education for, as a Senior, I'm better equipped than ever to safely enjoy "aging-in-place" in my current home!

Research shows that there are a surprising number of home improvements you can perform that will help make life easier and more secure for yourself or elderly family members and friends. These home improvements range from major projects like installing safer flooring to small improvements like simply rearranging furniture into safer configurations.

The <u>ADA Accessibility Guidelines for Buildings and Facilities</u> (Google it) is a great resource for ideas on how to make a home easier to live in and more accessible to people as they age. Many of the published guidelines go a long way to extending the amount of time an elderly or physically impaired individual can live independently. Let's look at some of them, OK?

<u>Bathroom Specific Improvements</u>: General Bathroom Improvements: Falls and slips are one of the most common causes of injury to elderly people. The combination of smooth surfaces and ample water make the bathroom one of the most dangerous rooms in the home. A significant number of injuries occur as people try to enter and exit their baths or showers, use toilets and sinks, and maneuver over wet floor surfaces. For this reason, it is extremely important that the bathroom be updated for an elderly person or person with limited mobility. If you can only afford to make a few home improvements, **bathrooms are the best place to start**. The most basic improvements are fairly inexpensive and provide enhanced safety.

- If possible, **doors should not open into the bathroom**, so that the person has ample space to maneuver when inside the bathroom while the door is **open (Try Pocket Doors**).
- Ideally, there should be at least 30" x 48" of open space in front of countertops, sinks, toilets, bathtubs and showers to provide proper and safe access to these fixtures.
- Mirrors should be hung lengthwise and placed on the back of doors or directly above the sink instead of at standing eye level, so people confined to wheelchairs are able to use them.
- Grab bars should be installed parallel to the floor or at a slight diagonal (with the slope facing the person in the sitting position) in the following places:
 - o Alongside the toiletand......In the tub/shower areas
- Grab bars can also be **installed vertically in the shower area** as well to provide stability walking in and out of the shower.
- Besides aiding in balance and stability, grab bars also help people maintain strength, in that they encourage
 pushing and pulling or supporting one's weight when they are used, and work muscles that may otherwise not
 enjoy the exercise.

Bathroom Cabinets and Countertops: The ultimate solution for a fully accessible bathroom for the elderly employs **lifts**, **or mechanical devices that lower and raise different portions of a bathroom's cabinets and counter top spaces** to adjust to the user's desired height. While expensive, the result allows anyone, no matter their physical limitation, to access bathroom storage and products easily and is a wonderful home improvement for all ages. If lifts are not feasible, there are other considerations for standard cabinets that are helpful to implement for improved safety.

• Having **varying heights of countertop surfaces** greatly enhances a bathroom's usability as people age and become mobility challenged, whether they are confined to a wheelchair, need walking and standing aids, or are unable to stoop or bend easily. The normal height for a countertop is 36". Lower counters that are

between 28" and 34" are easier to user by people in wheelchairs or by people who need to sit while performing everyday tasks. There should be at least **29" of clearance** (from the floor up) **under the counter** to allow people in wheelchairs and with walking devices to get close enough to the counter to comfortable use it.

- Because a person in a wheelchair might bring their legs or lower part of their body in contact with the plumbing below the sink, it's important that you **insulate the pipes**, **particularly the hot water and drainage pipes**, to prevent any burns from the hot water moving through them while the sink is in use.
- **Lower bathroom cabinets by 3" to 5"** from standard heights to make more of the shelves accessible to most people, so items are easier to access and move.
- Remove older medicines, over the counter medicines and other harmful items from medicine cabinets so that a person doesn't get confused and mistakenly take wrong or outdated pills or ingest harmful products.

Toilets and Bidets: The ability to sit and stand is taken for granted by most adults, but for those with strength, balance or mobility issues, it can be a very difficult task. Creating a safe and secure environment for the elderly around toilets and bidets can not only prevent injury, but also can help preserve an individual's dignity by extending their ability to function independently.

- Toilet seats and bidet seats should be at least 17" in height to allow for easy sitting and standing. <u>Seat extenders</u> are available to retrofit toilets that are shorter.
- Make sure toilets and bidets are not placed in small alcoves or are not too close to vanities, shower stalls or
 other fixtures in the bathroom. There should be plenty of space around the toilet or bidet to maneuver
 with wheelchairs or walking aids.
- **Toilet seat lights** help provide light in darker rooms or at night and can help an elderly person find the fixture in the middle of the night, help with depth perception, and illuminate the area to prevent trips and falls.
- Toilet and bidet handles should be large, easy to grip and easy to use.

Bathtubs: Walk-In Tubs like American Standard's Safety Tubs® ST6032 model are designed to help make bathing a safer, independent experience for many seniors. The most thoughtful tubs are designed with **therapeutic hydrotherapy systems** as well.

Bathtubs should be easy to enter and exit and one of the best solutions is a <u>walk-in tub</u>, which are tubs with doors that allow you to enter the tub over a low threshold, close the door behind you, and then either fill the tub for a bath or take a shower. Most walk-in tubs come with molded seats that are part of the tub itself, and some brands of walk-in tubs come with therapeutic options like hydrotherapy and aromatherapy that can significantly reduce the pain or discomfort of many common ailments. Some, like the <u>Safety Tub®</u> from <u>American Standard</u>, also include comfort options like **water pumps that drain water out of the tub faster** and include an **ADA compliant seat** and leak-proof door guarantee. Low profile bathtubs are better than regular height bathtubs, but they still require a person to step over and into them and they do not usually include molded seats, nor are they easy to sit or lie down in.

Walk-In Tubs

- The most thoughtfully designed walk-in tubs have <u>large, oversized doors</u> that open fully for easy exit/entry.
- Any tub designed for the elderly should include anti-scald controls, or offer them as an option.
- Walk-in tub doors should employ <u>watertight door seals</u> to avoid leaks that may potentially cause slips and falls when exiting.
- Controls should be ergonomic, large, intuitive and easy to use.
- The space inside the tub should be spacious enough to accommodate larger adults comfortably.
- Molded <u>chair-height seats</u> should comply with 17" chair height requirements from the ADA.
- The tub should incorporate **grab bars** for safety when entering/exiting the tub and to aid with sitting and standing.
- The floor of the tub should be a **non-slip surface** to ensure good footing when entering or exiting the tub, or while standing in the tub during a bath or shower.
- Look for convenience options like hand held showers that allow users to stay seated while bathing and fast draining pumps that allow people to exit the tub faster to keep their comfort level at a maximum.

Other Tubs

- If a bathtub doesn't come with a seat already molded into its structure, add a separate seat or bench to the tub so users can sit while bathing, reducing the chance for slip and falls. **Benches and seats should be positioned at least 2" from the sides of the tubs on either side** to make sure the seat feet are stable and on flat surfaces, or be secured to walls with bolts to prevent it from moving or tipping over.
- Bathtubs should have non-slip floors and surfaces to prevent slips and falls

Showers: Safety Tubs® Seated Safety Shower from American Standard provides numerous safety features and a unique, ADA height compliant seat, making it an attractive choice for seniors looking for alternatives to bathtubs.

Showers should be wide, and paired with a set of **wide shower doors** or an easy to move curtain so they are easy to enter and exit. The **threshold to enter them should be as low as possible**, to make it easy to step into and out of the stall, and to lessen the likelihood of trips or falls (modify for a "zero barrier entry"). The best all around shower option is the <u>Seated Safety Shower</u> from American Standard. It has many thoughtful safety features integrated into its design including a wide door, wide seat and wrap around grab bar.

- Look for **extremely wide openings** (like the width of a standard tub) to allow for very easy access by mobility-impaired people.
- **Built-in grab bars** will provide ultimate safety while the user is standing or sitting, entering or exiting the shower stall.
- Like a bathtub, it's imperative a shower have a non-slip floor to keep slips and falls to a minimum.
- Showers usually have fairly **low thresholds** for easy access, so be sure to find one that's as low as possible. Also, be sure the threshold is not deeper than normal so it's easy to step over.
- The inclusion of a **wide, contoured, full-sized seating area** will make it much easier for people to sit and stand and will provide a more comfortable shower experience.
- If a shower doesn't come with a seat already molded into its structure, then it should contain separate but sturdy seats or benches for sitting while bathing to lessen the opportunity for slips and falls. **Benches and seats** should be extremely sturdy and stable with all four feet evenly supporting the weight of the bather on a flat surface, or they can be **secured to the wall to be sure they do not move or tip over.**

<u>Kitchen Specific Improvements</u>: **Kitchen Counters and Cabinets**: Like bathroom counts and cabinets, the ultimate solution for a fully accessible and safe kitchen for the elderly employs <u>lifts</u>, or mechanical devices that lower and raise different portions of a kitchen's cabinets, small appliances or work top spaces. While expensive, the effect allows anyone, no matter their physical limitation, to access kitchen tools and appliances easily and is a wonderful home improvement for all ages. (**NOTE**: If lifts aren't an option, there are a number of other improvements you can make that will greatly increase the usability and safety of a kitchen area for an elderly or mobility impaired person.)

Kitchen Counters

- Like in bathrooms, employ varying countertop heights to enhance kitchen usability as people age. Lower counters to between 28" and 34" and ensure at least 29" of clearance (from the floor up) under the counter to allow people in wheelchairs and with walking devices to get close enough to the counter to comfortable use it.
- The first 16" of depth in a counter, from the edge closest the user and back, is considered the most comfortable work area. Counter space behind those first 16" can be used for storage.
- Use glare-free materials for counter tops so that people can easily see items placed upon them.

Kitchen Cabinets

- **Lowering higher cabinets by 3" to 5"** from standard heights makes more of the shelves accessible to most people, so items are easier to access and move.
- If possible install easy access features like rolling carts and baskets, lazy susans, and full extension drawer glides to cabinets to make finding and accessing items quicker and easier.
- The use of glare-free surfaces for cabinetry improves a person's visual ability to locate handles and knobs.

Kitchen Sinks

• Sinks that are designed to be wheelchair accessible are usually shallow, anywhere from **5" to 6.5" deep so that the user can reach to the bottom of the sink**, and to provide enough clearance under the sink for a

wheelchair or other walking aid. Faucets should be ergonomic and contain a single, easy to grip control to ensure operation is simple and effortless.

• Because a person on a wheelchair might bring their legs or lower part of their body in contact with the plumbing below the sink, it's important that you **insulate the pipes**, particularly the hot water and drainage pipes, to prevent any burns from the hot water moving through them while the sink is in use.

House Wide General Improvements

Floors and Stairs: Steps pose a major danger to the elderly, particularly those with impaired strength, movement or balance. Attention to details like **proper railing installation**, **non-slip stair treads and the removal of area rugs from the tops and bottoms of staircase**s can help reduce the risk of injury.

Since slipping and falling is a major cause of injury in the elderly, it's important to pay particular attention to the **condition of floors and stairs**. There are many steps you can take to minimize the chance of injury by making sure floor and stair surfaces throughout the home are both safe and secure.

For Floors:

- **Secure carpets and area rugs** with adequate grips so they don't move or shift when people walk over them. Carpets with a high-quality rubber backing will grip smooth floor surfaces well. If existing carpets or area rugs don't have rubber backing, **install carpet tape or non-slip rug pads** to keep them firmly in place.
- **Don't place area rugs on top of wall-to-wall carpeting.** They will not lie as flat as they should and edges that stick or curl up can cause trips and falls.
- Consider replacing tile or hardwood floors with safer non-slip flooring, especially in bathrooms and kitchens.
- Make sure transitions from room to room are completely seamless and flat and that transition pieces
 are not loose or sticking up. If there is a step (or steps) from one room down or up into another, be sure to
 provide handrails if possible and make sure steps are very obvious and easy to see. If the step is
 constructed of hardwood or tile or another smooth surface, be sure to install rubber stair treads or antislip tape for traction. Stair treads come in traditional styles or more decorative styles. Be sure to secure
 treads with an appropriate adhesive to keep them firmly in place.
- Make sure wall-to-wall carpeting is tight and secure.
- Make sure walkways within the home are clear of clutter and are wide and easy to maneuver.

For Stairs:

- Ensure all stairs are even in height and are deep enough to comfortably place the entire foot on the step for proper balance. Although most houses have steps with standard-sized rises and depths, some older homes particularly antiques in older regions of the country have taller, shallower steps that are harder to navigate.
- Check that every step is solidly constructed and has no loose boards or nails and fix any that are suspect.
- For wood, painted or tile steps or steps made out of other smooth materials, be sure to install rubber or abrasive treads or anti-slip tape for proper footing and grip. Stair treads come in traditional styles or more decorative styles. Be sure to secure treads with an appropriate adhesive to keep them firmly in place.
- For carpeted steps, be sure the carpeting is firmly installed and not sagging or loose.
- Make sure **handrails run the length of the entire staircase**, are placed in a position that is easy to reach, provide enough surface area for a secure grip, and are securely fastened to the wall.
- Consider installing a <u>stair lift</u> for people who have issues with balance, mobility or strength to ensure their safety going up and down staircases.
- Do not place area rugs at the top or bottom of staircases, where trips or slips can result in serious injury.
- If an elderly person is unable to use steps or a chair elevator consistently and safely, and their bedroom and/or bath is located upstairs, consider **converting existing first level space** into a bedroom and/or bathroom or construct a new addition with a bedroom/bathroom on the 1st floor.

Anti-Scald devices and Hot Water Temperature: As we age, we sometimes **lose the ability to feel differences in temperatures**. What might be painful to a younger person does not necessarily feel the same to an older person.

Or, an elderly person might suffer from cognitive or memory issues and forget how to correctly set a water temperature when taking a bath or shower. Hot water can cause 3rd degree burns if it's hot enough and a person's body is exposed long enough. As such, it's very important to make sure all household faucets are equipped with devices that help protect an elderly person from scalding water, and that the temperature of a hot water heater is not set to a dangerous level.

- The temperature of the hot water heater should be set so that it **does not output water above 118 degrees F.** For most people, that temperature will cause discomfort or some pain, but it will not produce 1st
 degree burns. If a person living in the household is very sensitive to temperature, or is **unable to distinguish between hot and cold sensations, then you may want to adjust the temperature to be 110 degrees F or less instead.**
- Make sure all faucets in the house are equipped with **Anti-Scald Devices**. There are different types of these devices; those that monitor pressure and adjust the flow of water, and those that monitor temperature and automatically adjust it if needed. Temperature based devices are more expensive than pressure based devices, but are more effective. The best devices are those that monitor both pressure and temperature. Not only is temperature adjusted if it's sensed to be too hot, but the flow of water is cut or significantly reduced until the temperature has been adjusted to a safe level.

Cabinetry and Countertops: Trying to access high cabinets by using step stools or chairs, or crouching low to access floor cabinets can be very difficult and dangerous for an elderly person. In addition, high counter heights, particularly in kitchens, require a person to stand for long periods of time and are not accessible to those in wheelchairs. Handles and pulls can be hard to grasp, and drawers can be difficult to pull out. There are a number of thoughtful changes you can implement house wide that will improve the ability of an elderly person to interact easily and safely with cabinetry and countertops.

- Adjust counter heights to accommodate people who are confined to wheelchairs or who can't bend. They should be 28-34" high for someone in a wheelchair and 40" high for someone who has trouble bending.
- Place as many everyday items as possible with the most popular items located in the most accessible
 places in cabinets that are the easiest to reach and reserve harder to reach cabinets for storage of
 special occasion or seasonal items.
- Use ergonomic, easy to grip handles and pulls
- Use high quality drawer glides so pulling drawers out and pushing them in is simple and effortless.

Doorways: Be sure **doorways are wide** enough to comfortably accommodate people using wheelchairs or walking devices and gives them plenty of room to maneuver on either side.

For the elderly (who may sometimes have vision problems, use walking aids, find themselves confined to wheelchairs or suffer from obesity), doorways can present potential obstacles to easy movement and navigation throughout a home. Making sure doorways meet the following criteria will help the elderly or mobility impaired avoid collisions with door jams and will facilitate easier, stress-free travel.

- Doorways should be wide and tall to accommodate people confined to wheelchairs, who need to use canes or
 walkers or who are sight impaired and benefit from extra room to maneuver. A good width for a doorframe
 is 32" to 36".
- There **should not be any furniture or other obstacles within 48" to 60" of the door** to allow for the full movement of the door when opened or closed, and to ensure there is enough room for the person to maneuver around it.
- Doors should not be unduly heavy or difficult to open or close.
- Door latches should be easy to grip, ergonomic and not require tight pinching or grasping or twisting of the wrist to operate.

Windows: Depending on the type, windows can be difficult even for healthy young adults to open and so for the elderly, they can be extremely problematic.

• <u>Casement windows</u> with cranks are the easiest for most people to open or close. There is no need for undue strength and the crank is usually positioned at a height that is easy for most people to reach, even those in wheelchairs.

• Motorized window blinds can help make the use of blinds easy for people with limited motor skills or who are wheelchair bound.

Lighting: It's not unusual for middle-aged people to suddenly realize they can't read small type or see as well in the dark as they used to. And, unfortunately, as we age our eyesight usually becomes worse and our eyes more sensitive to extremes of light and dark. As such, it's extremely important that elderly people have **strategically placed lighting** installed or placed throughout their homes that employ **easy to use controls**, allowing them to easily brighten and dim a room as needed so they can stay safe at night or during cloudy or stormy days.

Light switches

- Use ergonomic light switches that have large tilt plates instead of those with small toggles
- **Position light switches** so they are **no higher than 48" from the floor**, so people who have problems stretching or reaching or who are confined to wheel chairs are still able to reach them.

Light fixtures

- Light fixtures like lamps should be **easy to reach**. If they are not controlled with a wall switch, **pulls are the preferred method of operation** because they are easy to grasp and use. If a knob is used, it should be big enough to grab and turn easily.
- Lights should be placed in areas that are frequently used at night and that don't require a user to get up and navigate through a dark room to get to the light switch. For example, a lamp should always be placed next to the bed and within easy reach, so if a person needs to get up from bed at night, they can easily turn on the light first in order to navigate the room safely. Similar places would include a light next to a favorite chair or sofa.
- **Night lights** are extremely helpful in areas of the house that may be dark if a person must transverse them before turning on a light elsewhere. They may help those with compromised vision to avoid tripping over or bumping into objects until they are able to turn on a light.
- Be sure **shades** on lamps or light fixtures **let ample light through**. Dark shades may look fashionable, but they significantly cut down the amount of ambient light emitted from light fixtures and can make a room too dark for people with compromised eyesight.
- The amount of lighting in a room or area may need to be increased or decreased depending on a person's need for brighter or dimmer surroundings. Most elderly people need more light to help them see clearly and more easily. Some who have conditions that make them sensitive to light, like people who suffer from chronic migraines, may need to have light adjusted to be less harsh, and more diffuse. **Dimmers** are a great way to control the amount of light coming from a ceiling or wall fixture and allow people to adjust the light level as needed.

Electrical Appliances: Electrical appliances are generally designed for the average healthy adult, so they can sometimes be difficult to use by people with compromised eyesight, strength, dexterity or mobility. Because they are electric, they can also be dangerous to those who don't or aren't able to correctly handle them.

- Be sure to contact major appliance manufacturers to enquire about specialty products or options that
 address physical limitations. Many manufacturers have products available with features like large
 displays for sight impaired people or larger knobs for compromised manual dexterity.
- Major appliances should be positioned so they are easily accessible from either side. Make sure there is plenty of room around the appliances for people to move about and around each other.
- Be sure **major electrical appliances are on their own circuits with breakers** so that they can be easily turned off if needed, are protected from power surges that may occur in other circuits in the home, and so they don't overload electrical circuits when other electrical appliances are concurrently running.
- If an elderly person relies upon an electrical appliance to provide a health benefit, like a specific medical device or space heater, make sure that in the event of an extended power outage, **backup power** is available for those appliances.
- Position **electrical outlets so they are no lower than 15" from the floor and no higher than 48"** so people who have problems bending or crouching or who are confined to wheel chairs are still able to reach them.
- Position thermostats no higher than 48" from the floor so they are wheelchair accessible.
- Never place an electric appliance in the vicinity of a sink or bathtub, or other area where it can be knocked over and fall into or get splashed with water. Especially space heaters in the bathroom.

Be sure countertop and other small appliances remain unplugged when not in use.

General Tips: There are very simple changes you can make to the home that are surprisingly effective at providing a safer and more secure environment for an older individual:

- **Remove hanging tablecloths or other draping linens** from tables, beds, coffee tables or other pieces of furniture that may droop to the floor, get tangled in feet or legs, and cause trips and falls.
- Remove tablecloths or other pads that slip easily on counters or tables to prevent accidental scalding.
- Make sure furniture and other objects in the house do not have broken or sharp edges, nails or screws that are sticking out, and are placed well out of the way of typical foot traffic.
- If an elderly person lives with pets, try to **keep pets from being underfoot**. Small pets may be hard to see and cause trips or falls. High-strung pets can cause injury or falls. Crating pets during times when the person is moving about the home or securing the pet in a separate room when they're highly excited can be helpful.
- If an elderly person lives with children, be sure to **educate the children** on interacting safely with the elderly person. For example, ask them to help the elderly person with easy tasks, like retrieving items from other rooms or helping them read a label. Also ask children to be considerate of the elderly person's mobility and strength issues by not leaving their toys or other items on the floor where they can be tripped over, and to refrain from jumping on or bumping brusquely into the elderly person.

Some Recommended Sources for Information:

- 1. ADA Accessibility Guidelines for Buildings and Facilities (ADAAG); http://www.access-board.gov/adaag/html/adaag.htm#4.16
- 2. Anti-Scald Device Installation, by Tim Carter; http://www.askthebuilder.com/B55 Anti-Scald Device Installation.shtml
- 3. Bathroom Designs for the Elderly and Handicapped, by Tracey Kelley, Sarah White and Wendy Michaels. http://homeimprovement.lovetoknow.com/Bathroom_Designs_for_the_Elderly_and_Handicapped
- 4. Bathroom Toilet Seat Lights, by Tracey Kelley and contributor Sarah White. http://homeimprovement.lovetoknow.com/Bathroom_Toilet_Seat_Lights
- 5. Home Caregivers Follow Bed & Bath Safety Tips for Elderly Persons, by Mary King; http://www.suite101.com/content/home-caregivers-follow-bed-bath-safety-tips-for-elderly-persons-a260937
- $6. \ \textit{Accident-Prevention Tips}, \ by \ the \ Editors \ of \ Consumer \ Guide; \\ \underline{\text{http://home.howstuffworks.com/home-improvement/household-safety/tips/accident-prevention-tips.htm}$
- 7. Security & the Elderly Tips to Reduce Stress & Be Safe, by Mark McLean; http://ezinearticles.com/? Security-and-the-Elderly—Tips-to-Reduce-Stress-and-Be-Safe&id=4260577
- 8. Making Your Kitchen "User Friendly", by Christine A. Price, OSU Extension State Specialist; http://ohioline.osu.edu/ss-fact/0179.html

Wow! Quite a list & a lot to think about, eh? Well, maybe being a Senior isn't as bad as it sounds, especially when we got more & more research going on about how we can live longer, healthier, safer & HAPPIER LIVES!

Enjoy your day & Remember to Renew the World Each Day by Living Fun & Doing Good for Others, OK?

Chuck (Berry-Hoover) Boles, Director of SIMPLE!™

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P.S. Any Questions?.....Contact me, OK?