

**Home Modifications for
Maximizing Safety and
Independence**

John Kelly, PTA, CAPS, CFPS,
Coordinator, Home Modifications Services

Disclosure Statement:
Place of Employment: Easterseals Crossroads

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Learning Objectives

- Name Potential Downsides to Home Modifications
- Learn common solutions to typical challenges
- Understand the difference between Universal Design and User-Centered Design
- Describe the 4 Categories of Home Modifications



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Demand for Accessible Home Modifications

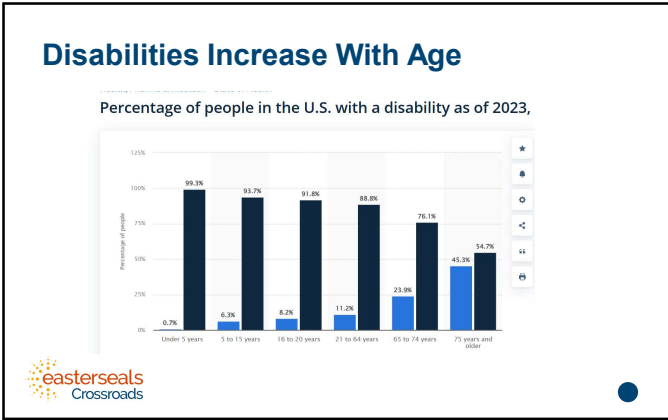
- 53 Million adults in the US live with a disability
- The most common types of disabilities involve difficulties with walking or independent living
- As the overall population ages, the number of people with disabilities will grow as well
- By 2050, the population of Americans over the age of 65 will increase 120%



CDC, Pew, US Census



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- ### Potential Downsides to Modifying One's Home:
- Expense
 - Reduced Property value
 - Rental Challenges
 - Poorly planned modifications
 - Perceived Stigma
 - You may have to move later anyway
 - Homes need Maintenance to remain safe
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- ### Common Fall Risk Factors
- "Modifiable" Risk Factors:
 - Gait, Strength, Balance
 - Medications
 - Home Hazards
 - Orthostatic Hypotension
 - Vision Problems
 - Foot problems/bad footwear
 - Vitamin D deficiency
 - Comorbidities
- Source: CDC
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Categories of Home Modifications

1. Adjust the way in which activities of daily living are performed
2. Change the location of an item for easier access
3. Add or replace special equipment
4. Changes/additions to the home itself



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Inclusive / Universal Design

- Equitable
- Flexible
- Simple and Intuitive
- Perceptible Information
- Tolerance for Error
- Low Physical Effort
- Size and Space for Use

• Visitability



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Visitability

- One zero-step entrance
- 32 inch wide clearance at doorways
- 36 inch clear width in hallways
- At least one accessible half bath on the main level



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Universal vs. User-Centered Design

- Universal Design
 - Designed for a majority of individuals
 - Usable for most
 - New construction
- User-Centered Design
 - Evaluation of function
 - Designed for a specific user
 - Usable for most



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Why use a person-centered approach to home modifications

- Everyone in this world is unique
- Like individuals without disabilities, individuals with disabilities have their own specific interests, needs, and abilities
- No two disabilities are the same, regardless of likeness or their “label”
- What works for one person in his/her home may not be helpful for another person with a similar disability in his/her home



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Home Modification Assessments

User-Centered Design



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User-Centered Design

In-home assessment of the client's mobility needs and barriers to accessibility.

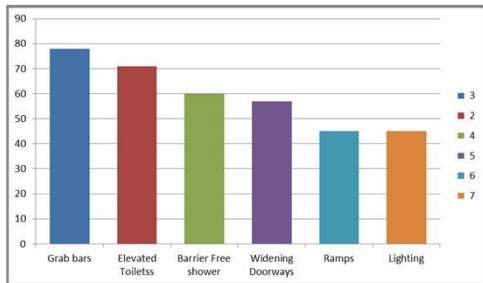
Consists of:

- Detailed interview with client, family members, caregivers and referral sources
- Measurements/drawings/pictures of the existing environment
- Task analysis/observation of performance
- Problem solving/discussion of potential solutions
- Present solutions for each barrier needing to be addressed – including pros and cons of each option
- Client's input
 - Client/homeowner approves design
 - Decision-making process ongoing as new information arises throughout bidding and installation process



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Most Common Home Modifications



Source: NAHB



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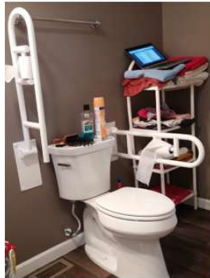
Grab Bars

- Wall Mounted Grab Bars
- Flip-Up Grab Bars
- Floor-to Ceiling Poles
- Clamp-on (Tub) Grab Bars



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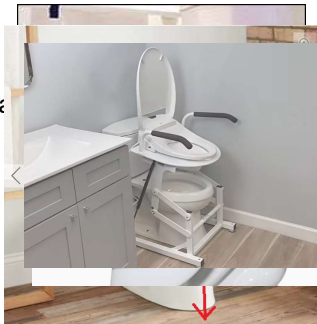
Flip-Up Grab Bars



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Toilet Accessibility Solutions

- Toilevator
- 19" – 21" Toilet
- Bemis Raised Toilet Seat
- Motorized Toilet Lift



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Big John Toilet Seat



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Squatty Potty

why squatty potty?

a better bathroom experience!

- 1 elevated knees
- 2 ergonomic angle
- 3 space-saving design
- 4 non-slip feet

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Bidet Toilet Attachment

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Barrier Free Shower

- “Barrier Free” Shower
- Long term Decision
- Maintenance
- “Barrier Free”
- Seat Options
- Caregiver Access

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Caregiver Curtain

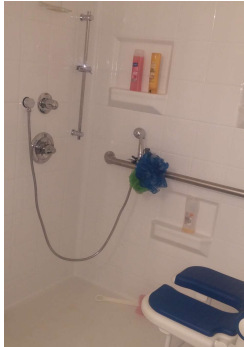


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Hand Held Shower Head Clamp



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Grab Bar/Shelf



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Wall Mounted Shower Chair



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What Makes a Good Ramp?

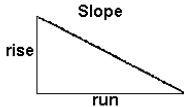
- Materials
- Slope and Cross Slope
- Landings
- Safety Rails / Hand Rails
- Non-slip Surface
- Location
- Maintenance

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Ramp Slopes

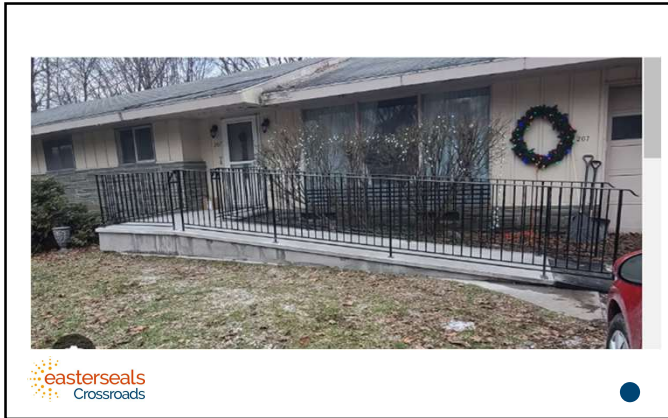
- Slope:
 - 1:12
 - 1:16
 - 1:20
- How many feet of ramp Run?
 -
 -
 -



Why would you choose a particular slope?

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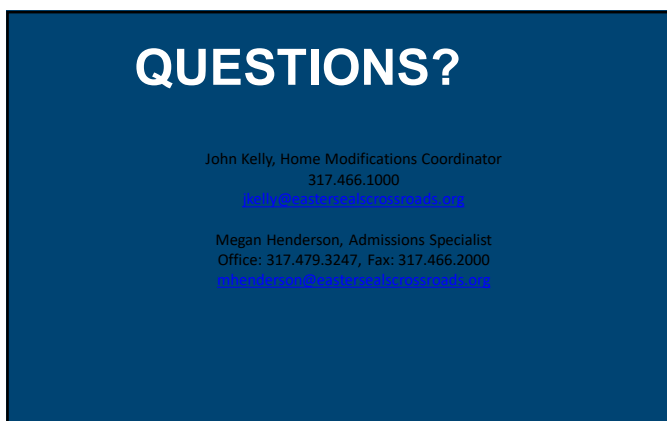
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