HOW SENIOR FRIENDLY IS YOUR WEBSITE?

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Today’s Presentation

1. Why should websites be senior friendly?
2. Research basis for senior-friendly web design.
3. What are senior-friendly web design features?
4. How do you know if your website is senior friendly?
5. Where are websites falling short?
6. What are best practices when it comes to senior-friendly web design?
7. What resources are available to help create senior-friendly websites?
Why should websites be senior friendly?

Today, more than 53% of people 65 and older are online. Growth has been steady over the years.

Source: Pew Internet and American Life Project
The numbers of older people online have been growing steadily....

- **1998** -- 9% of people 55+ had home access
- **2000** -- 15% of people 65+ were online
- **2004** -- 22% of people 65+ were online
- **2009** -- Nearly 40% of people 60+ were online
- **2012** -- 53% of people 65+ are online and 34% use social networking sites

*Source: Pew Internet and American Life Project*
Research funded by the National Institute on Aging (NIA) has shown that cognitive and vision changes among older adults can affect how well they perform in an online environment.
If websites are senior-friendly…

• … they can better serve the growing numbers of older adults who visit them.

• … they are easier to use, and a good place to start, for older people who are new to the Internet.

• … they are easier for other age groups to use as well.
Senior-friendly web design is based on …

- vision research
- cognitive aging research
What is a senior-friendly website?

A website with information that older people can easily

• See

• Comprehend

• Navigate
NIHSeniorHealth.gov
A website built with older adults in mind
NIHSeniorHealth.gov -- Basic Facts

- Jointly developed by the National Institute on Aging (NIA) and the National Library of Medicine (NLM) at NIH.

- Launched in 2003. Design was updated in 2012.

- Web design grew out of NIA’s research on the cognitive and vision changes that are part of the normal aging process.

- Numerous focus groups were held with adults age 60 – 88.

- The site features 60 health and wellness topics geared toward adults 60+. Topics are added and updated regularly.

- Topics contain background information, videos, quizzes, images and FAQs. Topics are contributed by NIH institutes and centers and other Federal agencies.
How to Make a Website Visually Comfortable for Older Adults
Vision research has shown that with age, these vision functions may decline and can affect how an older adult performs on a website.

- Reductions in the amount of light that reaches the retina
- Loss of contrast sensitivity
- Loss of the ability to detect fine details
Use **Vivid** colors for typeface

- **Vivid color**
  - Faint color
- **Vivid color**
  - Faint color
- **Vivid color**
  - Faint color
- **Vivid color**
  - Faint color
Eating Well As You Get Older: Benefits Of Eating Well

Eating Well Promotes Health

Eating a well-planned, balanced mix of foods every day has many health benefits. For instance, eating well may reduce the risk of heart disease, stroke, type 2 diabetes, bone loss, some kinds of cancer, and anemia. If you already have one or more of these chronic diseases, eating well and being physically active may help you better manage them. Healthy eating may also help you reduce high blood pressure, lower high cholesterol, and manage diabetes.

Eating well gives you the nutrients needed to keep your muscles, bones, organs, and other parts of your body healthy throughout your life. These nutrients include vitamins, minerals, protein, carbohydrates, fats, and water.

Eating Well Promotes Energy

Eating well helps keep up your energy level, too. By consuming enough calories -- a way to measure the energy you get from food -- you give your body the fuel it needs throughout the day. The number of calories needed depends on how old you are, whether you're a man or woman, your height and weight, and how active you are.

Food Choices Can Affect Weight

Consuming the right number of calories for your level of physical activity helps you control your weight, too. Extra weight is a concern for older adults because it can increase the risk for
Eating Well As You Get Older: Benefits Of Eating Well

Eating Well

Eating well is important for everyone at all ages. Whatever your age, your daily food choices can make an important difference in your health and in how you look and feel.

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Resize text button.
Gout

What Is Gout?

Sudden, Intense Joint Pain

Gout is a disorder that causes pain and swelling in the joints, which also may be triggered by stressful

A Buildup of Uric Acid

Uric acid is a substance that results from the breakdown of purines, which are part of all human tissue and are found in many foods. Early attacks usually subside within 3 to 10 days, even without treatment, and the next attack may not occur for months or even years.

Who is at Risk?

Adult men, particularly those between the ages of 40 and 50, are more likely to develop gout than women, who rarely develop the disease before menstruation ends.

Where Gout Usually Occurs

Sometime during the course of the disease, many patients will develop gout in the big toe. Gout frequently affects joints in the lower part of the body such as the ankles, heels, knees, or toes.
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Consuming the right number of calories for your level of physical activity helps you control your weight, too. Extra weight is a concern for older adults because it can increase the risk for diseases such as type 2 diabetes and heart disease and can increase joint problems. Eating...
Are Your Web Pages Visually Comfortable for Older Adults?

• Take Online Poll:

Which of the following features are characteristic of your website? (check all that apply)

- Main typeface is 12-14 pt. sans serif.
- A “text resize” button is available.
- Typeface color contrasts sharply with background color.
- Main site colors contrast with each other.
- There are generous amounts of white space.
Where Websites Fall Short – Vision Issues
Factors that Make Web Pages More Difficult to See --

**Typeface:**

- Typeface is too small.
- Typeface is condensed.
- Italics are used too much or are featured in prominent places.
- If present, the “Resize Text” button is often inconspicuous and usually not on every page.

**Justification:**

- Text is not left justified.
Factors that Make Web Pages More Difficult to See --

Backgrounds/Contrast:

- Main colors are not high contrast.
- Pastels are used. Shades of the same color are layered against one another.
- Typeface is too faint, lacking sufficient color to create a good contrast with the background color.
- Headings are not distinguished by size, weight, or color.

Spacing:

- Not enough white space, creating a crowded look.
- Not enough space between paragraphs or between lines within paragraphs.
Addressing Older Adults’ Cognitive Needs
Cognitive aging research has shown that these cognitive functions are involved in using a website. With age, these functions may decline, affecting how an older adult performs on a website.

- working memory
- spatial working memory
- perceptual speed
- text comprehension
- attentional function
Definitions of Cognitive Functions…

- **Working memory** -- the ability to simultaneously grasp, retain, and manage new information.

- **Spatial working memory** -- the ability to remember where things are located and actually find them.

- **Perceptual speed** -- the speed at which a person processes information.

- **Text Comprehension** -- the ability to understand written text.

- **Attentional Function** -- the ability to stay focused on specific information and eliminate distractions.
How to Make Web Content Easy for Older Adults to Comprehend
Content is written in straightforward, concrete language. Key information is first, followed by specifics. Content is organized into short sections, or “chunks”, making it easier to grasp and helping with recall. Steps are numbered.
Headings and subheadings divide content into smaller segments.

Bolding highlights discrete bits of information, separates the general from the specific, and introduces new content.

Bulleting divides content into segments.

White space is used to segment information.
White space helps drive users’ attention to content, reducing distraction. Paragraphs and sentences are short. Language is free of jargon. Active voice. Images are text-relevant.
Quizzes reinforce information, helping with recall.

Taking Medicines

Drugs in the Body

Try this 4 - question quiz to see how much you know about Taking Medicines in the Body.

1. Drugs taken by mouth in the form of pills, capsules and tablets travel around the body

   A. in the bloodstream. ✓
   B. in the skin.
   C. in the lymphatic system.

That's correct. A is the correct answer.

Drugs taken by mouth in the form of pills, capsules and tablets travel around the body in the bloodstream.
Are Your Web Pages Easy for Older Adults to Comprehend?

• **Take Online Poll:**

Which of the following features are characteristic of your website? (check all that apply)

- Simple and straightforward language is used.
- Content is frequently broken up into shorter segments.
- Images are almost always text relevant.
- Frequent use of headings and subheadings.
- Frequent use of bulleted and bolding to highlight and separate material.
Where Websites Fall Short...

Text Comprehension Issues
Factors That Can Impede Comprehension of Content

• Key information is not placed first and content does not flow from the general to the specific.

• Content is not broken up into small enough segments, making it hard to grasp and retain the information.

• There is insufficient use of headers and titles to segment and introduce content.

• Bulleting, bolding and numbering are not used often enough to highlight, segment, or order content.

• Too much content is crowded onto a page and is not visually differentiated enough.
Factors That Can Impede Comprehension of Content

- Sentences are not written in a simple, straightforward style.
- Sentences and paragraphs are too long.
- Jargon, passive voice are used.
- Too many of the images used are not directly relevant to surrounding content.
How to Make A Website Easy for Older Adults to Navigate
Clear indication starting on the home page of how content is organized on the site.

Home page has no automatically moving graphics, reducing distraction.

Information is organized into a few broad categories, making it easy to focus attention and find a place to start.
Navigational framework is maintained throughout the site.

Navigational structure signaled on home page is carried through and further delineated on subsequent pages.
Consistent location and relevance of navigation buttons.

Consistent placement and relevance of chapter links.

NIH Senior Health
Built with You in Mind


Hip Replacement

Who Needs a Hip Replacement?

Hip replacement is an operation in which a damaged hip joint is removed and replaced with an artificial joint. There are many medical conditions that can damage the hip joint.

Reasons for Hip Replacement

The most common reason for hip replacement is osteoarthritis. Osteoarthritis occurs when the cartilage covering the ends of the bones where they meet to form joints breaks down. This causes the bones of the joint to rub together. Growths of bone, called spurs, may form around the joint. These changes lead to pain and stiffness.

Other possible causes of hip damage include injuries, fractures, bone tumors, rheumatoid arthritis, and osteonecrosis.

Rheumatoid arthritis is a condition in which the body's immune system attacks the membrane that lines the joint. This can lead to pain, inflammation, and destruction of the joint. Osteonecrosis is a condition in which the blood supply to the bone is cut off, causing the bone to die.

Doctors often recommend hip replacement if pain and stiffness interfere with your ability to do everyday activities -- particularly if other treatments have not helped.

Before Choosing Hip Replacement

Treatments your doctor will likely recommend first include exercises to strengthen the muscles around the hip, walking aids such as canes to reduce stress on the joint, and medicines to relieve pain.

Medicines for Hip Pain

The information in this topic was provided by the National Institute of Arthritis and Musculoskeletal and Skin Diseases.
Links are clearly labeled. They predict what will appear when clicked.

Links are sufficiently large and provide enough space around them for easy clicking.

Links stand out against background, making them easy to find and get to.

Links open on single click. They change color when moused over.
Avoid horizontal scrolling and automatic scrolling text.

Minimal use of vertical scrolling.
Prompts help guide users as they navigate.
Prompts use action verbs to help guide users as they navigate.
Prompts use action verbs to help guide users as they navigate.
Links are sufficiently large and provide enough space around them for easy clicking.
Navigation elements introduced within the site remain consistent.
Navigation elements introduced within the site remain consistent.

Stay Safe

Almost anyone can benefit from physical activity. You can be active with or without a chronic condition like diabetes, or at any age, whether you’re just starting to be physically active or you’re trying to add more activity to your daily routine. Be sure to review the specific flexibility exercises.

Talking with Your Health Care Provider

Most people don’t need to check with their health care provider first before doing physical activity. However, you may want to talk with your health care provider if you aren’t used to being active and you want to start a vigorous exercise program or significantly increase your physical activity. Your activity level is an important topic to discuss with your health care provider as part of your ongoing health care. Ask how physical activity can help you, whether you should avoid certain activities, and how to modify exercises to fit your situation. For more information, refer to the printable tip sheet to the right.

Other reasons to talk with your health care provider:

- Any new symptoms you haven’t yet discussed
- Dizziness, shortness of breath
- Chest pain or pressure
- The feeling that your heart is skipping, racing, or fluttering
- Blood clots
- An infection or fever with muscle aches
- Unplanned weight loss
- Foot or ankle sores that won’t heal
- Joint swelling
Drop down list remains stable, allowing users to easily click on links. Links are highlighted when moused over. Alt-tag appears with sufficient description about what users will find once they click on the link.
Are Your Web Pages Easy for Older Adults to Navigate?

- Take Online Poll:

Which of the following features are characteristic of your website? (check all that apply)

- Organization of content is clear and remains consistent throughout.
- Navigation elements are located in the same place on most pages.
- Links are clearly labeled, indicating what users will find when they click.
- Links have sufficient space around them for easy clicking.
- Prompts use action verbs to direct users to take specific steps.
Factors That Can Make Navigation Difficult (and Make It Harder to Find Information)

- **Content organization.** Information is spread out over too many categories, with unclear hierarchy, making it difficult to know where to start and how to choose pathways into the site.

- **Shifting navigational structure.** New navigational elements continually appear and shift location when pages change. Users find they must continually reorient themselves to the website.

- **Crowded pages.** Pages have too much information. Layouts lack sufficient white space, making it difficult to focus and find specific content.

- **Links are not easy to use.** Links are not obvious. They are not clearly labeled and are too small. There may not be sufficient space around them for easy clicking.

- **Automatically moving Images.** Images and graphics change automatically and quickly, leading to distraction.

- **Drop-down Lists.** Lists are unstable when moused over. Users are required to slide the mouse over the list and click the link in one motion.
What are best practices for senior-friendly web design?

- **Making the Website Easy to See**
- **Making Content Easy To Understand**
- **Making the Website Easy to Navigate**
Best Practices…

Making the Website Easy to See

- 12 – 14 point sans serif typeface, uncondensed.
- A text resize button, easily visible throughout the site.
- A high contrast color scheme throughout the site, where background colors contrast with typeface and foreground colors.
- Titles and headings are distinguished by color, weight, and size.
- Left-justified text.
- Adequate spacing between paragraphs and between lines within paragraphs.
- Generous amounts of white space.
- Little or no use of italics or layered pastels.
Best Practices --  

Making Content Easy To Understand

- Key information presented first. Content should flow from the general to the specific.
- Content is broken into short segments.
- Use of clear headers and titles to introduce and segment information.
- Use of bulleted, bolded, and numbered to highlight, segment, and order content.
- Use of simple, straightforward language. Short sentences and paragraphs.
- Use of active voice.
- Strategic use of white space as a way to help users focus on content.
- Use of mainly text-relevant images.
Best Practices…

Making the Website Easy to Navigate

- Content is organized by broad categories and proceeds from the general to specific.

- The organization of the content is clear and remains consistent throughout the site.

- There is consistent placement of navigational elements throughout the site.

- The amount of content on a page is kept within reasonable limits.
Best Practices…

Making the Website Easy to Navigate

- Links are clearly labeled and sufficiently large, and they contrast with the background color.
- There is sufficient space around links.
- Prompts use action verbs to direct users as they navigate.
- There are few if any automatically moving images, graphics, or pop-ups.
- Vertical scrolling is minimized. Avoid automatic scrolling text or horizontal scrolling.
- Drop down lists should not make users slide the mouse and click all in one movement.
“Making Your Web Site Senior Friendly” is available at the National Institute on Aging’s website at www.nia.nih.gov
Get Free “Healthy Aging Tips” from NIHSeniorHealth.gov
Examples of “Healthy Aging Tips”

• Trouble sleeping? See these tips for a good night’s sleep.
• If you’re healthy now, why exercise? See the benefits here.
• What foods contribute to healthy aging? Check out these tips.
• Is stroke preventable? Find out here.
• Concerned about falling? See 5 ways to reduce your risk.
• Want to limit added sugars in your diet? See these tips.
• What are ways to avoid medication side effects? Get tips here.
• How can you lower your risk for cataract? Find out here.
Free Bookmarks at www.nia.nih.gov
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