



Making Your Printed Health Materials Senior Friendly

Tips from the National Institute on Aging

Health information can be particularly difficult to understand and act upon, even for the most capable person. There are some special considerations when developing written materials for older people. Alterations to learning and memory may affect an older reader's ability to absorb content, and the way information is presented may need to accommodate the cognitive and physical changes that often accompany old age.

Three variables influence the effectiveness of printed health materials for an older person. According to Hartley (1999), they are: the reader's general aptitude (e.g., his or her reading level and subject knowledge), the clarity of communication (e.g., how the text is organized), and the feasibility of taking action (e.g., how well the reader can remember or follow instructions).

This tip sheet offers ideas for how to tailor health information so that it fits the needs of your older readers.

Writing text for older adults

You know what you want to say. You've decided that the best way to say it is with printed material. Now you ask, "What do I need to know about writing for older adults?"

Researchers on cognitive aging say that as people age there may be changes in how they read and interpret information. Older people may have to work harder to:

- process information quickly, such as recalling new facts and interpreting charts;
- understand text that is densely packed with new ideas or contains complex syntax;
- draw inferences;
- solve new problems;
- manipulate different types of information at the same time; and
- focus on important new information without being distracted by irrelevant details.

Older adults also may be less able to change their long-held opinions to accept new information, a skill scientists call cognitive flexibility.

In addition, older adults may have a hard time remembering the context or source of information. This means that over time false or incorrect statements may be remembered as true, simply because the information

seems familiar. This is called the “illusion of truth” effect. For example, if you write, “Many people mistakenly think that exercise is unsafe for older adults; that it causes more harm than good,” you intend to dispel incorrect information. But, over time, an older reader may forget the context and simply remember that exercise was somehow connected to being unsafe. As a result, he or she doesn’t exercise, exactly the opposite of what you intended.

Not all cognitive abilities decline with age. For example, most older adults maintain “crystallized intelligence,” the knowledge and skills accumulated over a lifetime. Past experiences are also part of crystallized intelligence. These experiences may help older people make decisions without conscious deliberation of all the details and alternatives. Years of experience provide references to help older adults identify their best choices and eliminate the rest.

Based on research findings on cognitive aging, there are a number of ways to make written information easier for your older readers to use and retain:

- **Be direct and specific.** Present information in a clear and familiar way to reduce the number of inferences that must be made. If your suggestions are by necessity general, like “Eat healthier foods,” then try to give specific examples. Omit unnecessary words. For example, instead of saying, “Some people find that talking to their health care provider can be helpful when deciding how to care for their hypertension,” you might say, “Talk with your doctor about managing your high blood pressure.”
- **Limit the number of key points.** Try to stick with three to five points per section.

Make your message brief to help compensate for possible short-term memory limitations.

- **Offer a manageable number of action steps.** There may be several things you want your readers to do about a certain health issue. However, some older readers may have a hard time implementing several tasks all at once. Try to suggest only one or two things at a time. For example, let’s say your publication is about sun safety. There are plenty of possible health recommendations. But if you stick with a few suggestions, you increase the likelihood your reader will actually take positive actions. You might also think about presenting suggestions as carefully numbered, sequenced steps. People with some cognitive disorders, such as early Alzheimer’s disease, typically can retain only one or two steps at a time.
- **Use positive statements.** Counter the “illusion of truth” effect by always framing your statements positively, as in, “Visit your dentist regularly even if your teeth feel fine,” versus “Do not avoid going to the dentist because your teeth are fine.”
- **Use active voice.** Say what the reader can do. Focus on actions. For example, “Keep track of your medications,” is better than “It is important for people to keep track of the medications they take.” Another example, “Quit smoking. You reduce your risk for disease,” is better than “Quitting smoking has been found effective for reducing risk of disease.”
- **Support information with real examples and relatable stories.** Using stories can help older readers build on information that is already familiar to them. Examples and stories may connect readers to applicable past experiences. Avoid using abstract examples that may not seem clearly relevant.

- **Use pictures to help illustrate information.** Sometimes an easy-to-understand picture can help the reader identify with the information. For example, if you are talking about how to stay safe and warm in the winter, a picture of a person wearing a hat, gloves, and a scarf may be better than wordy descriptions. Or, if you explain a medical procedure, it may be helpful to include an illustration of it.
- **Put your key points up front.** Try to say your main message right at the start. If you bury the important message in the middle or towards the end of the publication (or even within a paragraph), it may not get read.
- **Break lengthy documents into short sections or paragraphs.** This may help older adults remain focused and not get distracted in the middle of a long paragraph or section.
- **Repeat main points multiple times.** This will help older adults recall information and focus on what is most important. Consider starting with an introductory summary paragraph or bulleted list and end with a summary.
 1. Introduce what you are going to say.
 2. Say it.
 3. Repeat what you said.
- **Reinforce main points with questions.** Research suggests that inserting questions related to the main messages into the text may help readers recall the key points.
- **Avoid complex diagrams.** Charts and graphs that require interpretation or the ability to compare information in different rows or columns can be confusing for older readers.

- **Avoid jargon.** Terms used by professionals but not commonly in use by the general public are called jargon. Examples of jargon include words like ailment, benign, and lesion. Try to use more familiar words, for example, heart attack instead of myocardial infarction. If medical terminology cannot be avoided, try to include an easy-to-understand definition.

Summary

- Be precise.
- Keep it short.
- Make it easy-to-understand.
- Use everyday language.
- Focus on action steps.

Designing text for older adults

Once you've got your text in hand, what's next? You need to make sure that the *way* the information is presented also accommodates your older audience. Designing your material so that it is reader-friendly is as important as clear content.

Most people do experience vision changes as they age. A variety of eye diseases and disorders impair vision and can influence an older reader's ability to understand your material.

When designing a publication for older adults, think about ways to make the print easier to read. Here are some suggestions:

- **Use serif typeface for print materials.** Fonts in serif typefaces—like Minion Pro (used here in this text), Times New Roman, and **Georgia**—have tails on the ends of their letters that create an illusionary line, which can help guide the eye across the print.

Sans serif typefaces, such as Arial and Tahoma, do not have the tails and are harder to read on the written page. Novelty typefaces, like **Chiller**, and display typefaces, like **Bodoni**, are also difficult to read.

- **Make type size at least 12 point, 13 point, or 14 point.** Type that is too small can be hard on the eyes and can even cause a headache. When selecting a type size, keep in mind that some fonts are naturally bigger than others. For example, look at **Georgia** vs. Times New Roman. Both of these fonts are in 13 point type size and yet **Georgia** is bigger. Use 14 point type size when working with smaller fonts, like Times New Roman. Headings should be even larger so they will stand out. If your audience has low vision, consider using larger fonts, like **16 point** or **18 point**. However, for older readers who do not have low vision problems, font sizes that are too large (greater than 14 point) may be difficult to read.
- **Allow for white space.** Empty space on a page can provide natural places for the eyes to relax from reading and may help older adults to focus their attention.
- **Use upper and lowercase letters.** Generally, readers are most familiar with print that has upper and lowercase letters. That's why ALL CAPITAL LETTERS CAN BE DIFFICULT TO READ. Save using all uppercase letters for headlines or when you want to emphasize something.
- **Double space body text, where possible.** It can be frustrating to read the same lines over and over again because they are blurring together. Double spacing text can help your reader avoid this problem.

- **Try to limit the use of italics, underlining, and bold for emphasis.** These styles are good for highlighting information but if overused can make the text less readable. For instance, *italicized letters can appear squeezed together*; when a lot is underlined, it is hard to see what's being emphasized.

- **Align text to the left margin.** Text is called "left justified" when the start of each new line is aligned with the left margin. This style is easiest to read.

- **Don't wrap sentences around a graphic.** Sentences divided by images are hard to read.



- **Keep normal spacing between letters.** Try not to condense or expand spacing between letters so that the words can fit on one line. For example:

- This is what regularly spaced text looks like.
- This is what text looks like when it is condensed.
- This is what text looks like when expanded.

- **Avoid yellow and blue and green in close proximity.** As we age, these colors may become increasingly difficult to tell apart. Using blue or green text on a yellow backdrop or vice versa may make the words appear to blend in with the background.

- **Create contrast.** Use dark type against a light background or use black type on a white background. Avoid patterned backgrounds. Text appearing across photos or other graphic designs is also hard to read.

- **Limit line length.** Keeping lines from 50 to 65 characters long can help the eyes scan across the text more easily. This reduces the chance of readers inadvertently skipping to another line in the middle of reading. Think about using two columns to reduce line length. But, be careful about making your lines too short because that can also be difficult to read. If you plan to insert a large picture into the text, you may want to have one column be one-third of the page width and the other column two-thirds so that the picture can fit without disturbing the text, as in this example:



- **Avoid awkward breaks at the end of lines.** Breaking a word at the end of a line with a hyphen can make it difficult to read. Breaking technical words across two lines may also be problematic. Also, try to keep numbers and their qualifiers, like 25 percent risk or 32 people, on the same line.
- **Carefully select paper.** Glossy paper creates a shine that can make text difficult to read. If a paper is too thin, the reader may be able to see through it to the type on the other side of the page, which will also make it hard to read.

Summary

- Keep the layout simple.
- Build in breaks for the eyes.
- Use easy-to-read fonts.

Final thought...

Developing a fact sheet, pamphlet, booklet, newsletter, or any other type of printed health material for older adults can be challenging. Following the suggestions in this tip sheet can help. Also, before distributing your new, senior-friendly print material, you might consider previewing it (also known as pilot testing) with a sample of your target audience in a focus group. Even informal audience testing can be a great way to gauge your publication's effectiveness. Remember that older adults, like any other age group, are diverse—one size does not fit all.



For more information on health and aging, contact:

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www.nia.nih.gov

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Resources when writing for people with vision impairments:

Making Text Legible: Designing for People with Partial Sight. Available from Lighthouse International at www.lighthouse.org/accessibility/legible.

Effective Color Contrast: Designing for People with Partial Sight and Color Deficiencies. Available from Lighthouse International at www.lighthouse.org/accessibility/effective-color-contrast.

To sign up for regular email alerts about new publications and other information from the NIA, go to:

www.nia.nih.gov/HealthInformation

Visit **NIHSeniorHealth** (www.nihseniorhealth.gov), a senior-friendly website from the National Institute on Aging and the National Library of Medicine. This website has health information for older adults. Special features make it simple to use. For example, you can click on a button to have the text read out loud or to make the type larger.