I recently watched a staff nurse I’ll call Nurse Leno prepare “Mrs. Hampton” for discharge. The elderly patient was recovering from an episode of acute bronchitis that exacerbated her diabetes. Although hard of hearing and arthritic, she was alert and oriented. Although Mrs. Hampton made it clear she planned to return to her former assisted-living facility after a short stay with her daughter, Nurse Leno handed the prescriptions to the patient’s daughter.

She spoke with the daughter about the drugs and how to administer them. She reviewed basic safety instructions. She made sure the patient’s glucose meter and sufficient test strips were packed and stressed medication compliance and diet. Finally, the nurse set up appointments for lab work and a follow-up doctor’s visit.

As thorough as Nurse Leno was, she made one fundamental error—she treated Mrs. Hampton as if she weren’t there.

Perhaps Nurse Leno had had a bad experience that led her to accept the stereotype that elderly patients—generally those over age 65—are too old or simply not motivated to learn. Yet, all adults have the right to information about their health and the right to be treated with dignity and respect.

Granted, some geriatric patients can be challenging to teach. These frustrations are not inevitable, however, if you understand the ways that the elderly differ from young and middle-aged patients. Many elderly patients face physical, psychological, and psychosocial issues that are difficult to cope with and can affect their ability and motivation to learn. But, when armed with knowledge about such changes and skill in adapting appropriate teaching strategies, you are able to help older patients become successful learners and more satisfied partners in care.

Screen for changes that may impair learning

A number of alterations in vision, hearing, and touch can decrease an elderly patient’s ability to learn or perform tasks of self-care. The following review, however, can help you accommodate these changes.

Vision. A patient’s visual acuity may have diminished markedly with age. Typically, the lens of the eye becomes less elastic, the cornea more translucent, and the pupil smaller. Older patients are particularly sensitive to poor lighting, and they don’t deal well with glare. They see best by the light of bright incandescent bulbs. Depth perception may not be totally accurate, and peripheral vision may narrow. Vision in the elderly may also be impaired by corrective eyewear that is no longer adequate.

In addition, a cataract can cause the lens to become opaque and yellow, affecting color perception. Retinal changes may cause elderly patients to experience problems with cool colors. They may, for example, have decreased blue, green, and violet color vision. As a result, patients may not be able to distinguish the different colors of their pills or caps.
sules. A blue pill, for example, may appear faded or gray.

How can you compensate for such sensory impairments? First, see if your patient needs glasses (or a new prescription for glasses). Ask her to read newsprint held about 14 inches from her eyes. Inquire also about contact lens prescriptions. As baby boomers age, you’re apt to encounter more and more patients with extended-wear contacts.

Provide bright lights in your teaching area. Position the patient so that light does not hit the reading material directly, causing glare. For example, when reviewing a brochure with a patient, you’ll want to use a bright overhead light, rather than a desk lamp whose light hits the brochure at an angle and creates glare. Printed materials with bright contrasting colors, including red and orange, and bold, crisp letters are easier to read. Provide a magnifying glass if necessary.

Avoid using printed material with all capital letters or all italics, which are more difficult to read than contrasting upper and lower case letters. If you have a choice, use an easy-to-read font and a type size no smaller than 12 points so the material can be comfortably read by an older person. (See the box on page 51.)

Refer to pills by name and shape rather than by color. For an elderly patient, a “little white pill” could easily be confused with her “little yellow pill.” Teach her the drug’s proper name and recommend large print labels on prescriptions for such patients.

Hearing. Older people experience changes in both the conductive and neural components of the ear. For example, the eardrum becomes less elastic and thus vibrates less. The cochlea and the eighth cranial nerve degenerate, so less sensory information gets to the brain. Generally speaking, it is more difficult for the elderly to hear sounds that are higher in pitch, to tell what direction a sound is coming from, and to screen out background noise.

To compensate for these deficits during patient instruction, find out how well the patient can actually hear. Since some patients will deny having difficulty hearing even when it’s indeed a problem, perform this “whisper test.” In a quiet corner, stand at your patient’s side but out of her sight, about 12 – 18 inches from her ear. Your head should be about even with her head. Ask the patient to cover her ear on the opposite side. Shield your mouth with your hand and whisper a few words related to your teaching content—for example, “blood sugar” or “insulin.” Ask

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**KEY WORDS**

- geriatric patients
- patient instruction
- whisper test
- after-imaging
- short-term memory
- low literacy
the patient to repeat what you said. If the patient is unable to hear at least half of the words, she probably has a hearing deficit severe enough to affect learning.

Be sure that patients who use hearing aids wear them during teaching sessions. If your patient isn’t using her aid, find out why. The problem may be a dead battery, an improper volume setting, or poor fit.

To teach a patient who is hard of hearing, sit facing her so that your mouth is about even with her eyes. Position yourself close to the stronger ear. Speak clearly and at a moderate pace. Older people often lip-read as a substitute for diminished hearing. Female clinicians should pitch their voices a little lower than usual to further facilitate communication.

Avoid letting the volume of your voice fall off at the end of sentences or phrases, but don’t shout. Also, eliminate distractions and background noise as much as possible. Rooms with drapes and carpeting are less likely to echo—and are thus better—than more spare surroundings.

To determine if the patient has understood your key points, ask her to repeat or paraphrase what you just taught. If you don’t get a response, say something like, “Are there things I didn’t say clearly enough?” A question phrased in this way will help you to avoid embarrassing the patient. Reinforce verbal instructions with written instructions, but make sure your patient is able to read beforehand.

Touch. Elderly patients may have a diminished sensitivity to pressure, temperature, and texture. As a result, your patient may have difficulty handling papers or booklets that are very slick in texture; she may drop things more easily.

Check for limitations in dexterity before beginning any kind of hands-on training. Lightweight plastics and Styrofoam are likely to be more difficult to manipulate than items with firmer textures. So, for example, to measure an oral liquid formulation, have your patient use a metal spoon or a graduated medicine cup instead of a small plastic spoon. Similarly, for dissolving powders in liquid, a glass container, a heavy plastic cup, or a cup with a weighted bottom will be easier to handle than a Styrofoam drinking cup.

If your patient is learning how to draw up insulin but has trouble picking up small objects, provide a larger (1 ml) insulin syringe and a 30 ml vial to start. Once the patient masters the needle and plunger, you can then introduce a 0.5 ml syringe and the smaller insulin vial.

Watch your patient’s return demonstration several times. Do not interrupt too soon, even if things start to go wrong. You’ll be able to see how the patient solves problems, and some of the solutions may be new to you.

Adapt to alterations in cognitive processes

It’s both rewarding and practical for a nurse teaching an elderly patient to draw on her accumulated wisdom and life experience—so-called “crystallized intelligence”—to help her learn. Before planning a teaching session, find out what the patient already knows about the topic. Encourage her to provide examples of how she can make appropriate behavior changes.

When discussing a planned exercise program, let your patient suggest locations (a mall, a local park) where she can walk. When discussing a low-salt diet, recommend dietary changes that fit the patient’s current lifestyle.

As we well know, however, mental capacity generally declines with aging due to a loss of neurons and decreased cerebral blood flow. This affects what’s known as “fluid intelligence”—the ability to think abstractly and to see relationships across topics. The decline in abstract thinking is subtle, gradual, and varied among individuals. Watch for these behaviors: prolonged processing time, after-imaging (fixating on a word or idea after the other person has moved on to another topic), limited short-term memory, and “test anxiety.”

To accommodate such changes, start by giving an overview of what you will cover prior to each teaching session. If at all possible, let the patient control the time the teaching session is held. Try to avoid times when the patient has recently taken medications that affect her ability to concentrate.

Here are several additional tactics for adapting your training to your patient’s cognitive capacity:

Allow ample time for processing. Older people may need more time to process what you say, so don’t hurry and don’t launch into long lists. Divide what you want to say into several smaller, discrete messages. Also, before starting, be conscious of your patient’s levels of anxiety, fatigue, and pain—all of which can impair learning. Avoid sessions during a time the patient usually naps.

Take after-imaging into account. As mentioned earlier, after-imaging refers to a mental impression that persists after the stimulus that produced it is gone. This persistence of a stimulus may cause older people to confuse a new word with one you mentioned earlier, making it more difficult.
to process additional new information.

Take the example of a patient who is being taught about the various forms of insulin she will be using at home. Let’s say she’s to use insulin glargine (Lantus), a long-acting insulin, at bedtime. She is also to take a short-acting insulin (Humulin) during the day, adjusting the amount according to her current blood sugar. If you try to discuss the two types of insulin in detail and too closely together, the terms “long-acting” and “Lantus” may get confused with “short-acting” and “Humulin.”

The key is to wait for a response before you present a new term or a new symbol. Encourage the patient to ask questions before proceeding. The pause in the flow of information allows the after-image to fade. Then you can present a new idea. Picture cards are a good way to firm up the patient’s grasp of a new term or concept.

Promote the formation of short-term memory. Older people will need coaching to help them remember the steps in a procedure. If you’re teaching an elderly woman to change her husband’s dressing, for example, think of ways to help her remember the steps of the procedure in the correct order. One way is to have the wife assist you the next time you change the dressing. Pause after each step to allow her to process what she has done.

“Clumping” is another strategy that promotes the formation of short-term memory. You break down a complex task into a series of key steps, which may include some smaller steps. Be consistent in naming the steps. For example, if you are teaching a patient to test his blood sugar, here’s how you might split up the procedure:

► Set up the blood glucose monitor.
► Clean the chosen site.

► Sample the blood.
► Record the value.

Avoid creating “test anxiety.” As you teach and ask for return demonstrations of a technique, avoid coming across as a school-teacher trying to drill a poor student. It’s better to use verbal rather than written testing when evaluating the older person’s knowledge.

Accommodate those with low literacy

The elderly account for about one-third of the low-literacy population—though that will change as the baby-boom generation, many more of whom finished high school and attended college, moves into retirement age. To educate an elderly individual with low-literacy skills, you’ll need written materials (ideally with illustrations) that clearly convey the essentials at a lower-grade reading level.

For these patients, use handouts written at the fifth-grade level or lower. Many prepared patient handouts are written at the ninth-grade level or higher. Misunderstandings can lead to a patient taking medications inappropriately or not recognizing side effects. In written instructions, keep it simple, including just the essentials that the patient needs to know or do. Make your instructions as vivid as possible, but keep

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Choose fonts that are friendly to older eyes

The point size and font style in written educational material affect how well the patient can see—let alone grasp—the content. Knowing the terminology can help you select or recommend useful fonts. The recommendations that follow are based on my experience with patients.

### Avoid using a point size smaller than 12

<table>
<thead>
<tr>
<th>Point Size</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 point</td>
<td>10 point</td>
</tr>
</tbody>
</table>

### Avoid hard-to-read fonts

- Apple Chancery
- Bradley Hand
- French Script
- Humana Serif
- Impact
- Textile

### Choose easier-to-read fonts

- Century Gothic
- Courier
- Geneva
- Palatino
- Times New Roman
explanations about why she needs to do it brief. If you are discussing a procedure or process, be sure the steps are presented in sequence. Don't backtrack.

Use the active voice, rather than the passive voice; choose words that are only a few syllables long; and use short sentences. The longer the words and the more complex the sentences, the higher the level of reading difficulty.

Including illustrations and pictures reinforces your message and can be more effective in communicating concepts than words. Choose uncluttered illustrations that present a single idea, such as washing one's hands. Leave space around illustrations so they will stand out from the text.

If you need to use charts or tables, keep them very simple, with clear labels. Find models for simple line drawings in books, pamphlets, and clip art packages that are found at Web sites such as www.dotolearn.com. (Click on "Picture cards" on the home page.)

If time allows, personalize material for each individual—at the very least, label materials with the patient's name. This cues the patient's mind to the idea that "These are MY instructions." The personalized portion should include a fill-in-the-blank section, in which you write specific instructions, legibly. As you review the handout with the patient, pause periodically to allow for questions and clarifications.

The next time you encounter an older patient like Mrs. Hampton, avoid speaking solely to her daughter (or son) and treating her as if she weren't there. Instead, consider the various physical, psychological, and sociological issues surrounding her life. Be patient, and always be respectful. If you adapt the strategies outlined here, you'll increase your patient's ability and motivation to learn. And you'll help her to take as much control over her health as possible.

REFERENCES