

SECTION 5

Cognition



Section overview

This section looks at:

- Explaining cognition
- Some of the possible cognitive problems after stroke
- Strategies for helping stroke survivors with cognitive problems.

Your role as health care provider

When you understand how a stroke affects the survivor's cognitive abilities, you can provide better care and support. You play an important role helping the stroke survivor stay safe. You can also help the survivor learn to be more independent.

Cognition

Cognition refers to how we know things and how we think.

Cognition involves:

- **Attention:** Being able to concentrate on one thing for a period of time.
- **Orientation:** Being aware of time, place, and who we are.
- **Memory:** Being able to retain and recall personal experiences, information, and skills.
- **Insight:** Knowing and understanding our abilities and limitations.
- **Judgment:** Making good choices and decisions while being aware of our own capabilities.
- **Sequencing:** Being able to arrange things or perform actions in the right order.
- **Problem solving:** Knowing how to recognize a problem and find a good solution.

Cognitive problems

Cognitive problems are **invisible barriers**. They are not as easily seen as physical problems. A survivor with cognitive problems may not appear to have any impairment. Yet, cognitive problems can have a major impact on a survivor's function and level of independence.

Family and friends can sometimes overestimate the survivor's abilities. They may become frustrated and angry with the survivor who has cognitive problems. They may believe that the survivor is acting this way on purpose, is unmotivated or being stubborn. However, we might be expecting too much.

Do not confuse cognitive problems related to stroke with dementia. Although some stroke survivors may also have dementia, you need to know the difference to provide the survivor with the right care.

After someone has a stroke, their cognitive abilities may be affected. A stroke survivor can improve some of these skills over time. However, some problems may persist and adaptive strategies need to be considered. In this section, we go through some of the cognitive problems and adaptive strategies that can help.



Identify problems and find strategies to help the survivor with cognitive problems. Doing so can help the survivor perform tasks. It also reduces frustration among family, friends, or care givers.

Attention

Attention means being able to focus on one thing. Survivors may have a short attention span. They may be easily distracted. This limits their ability to focus on a task. The survivor may need more time to finish a task because of distractions.

How you can help

- Get rid of any distractions – including television, radio, and other conversations
- Give short, simple, step-by-step instructions. Make sure the survivor understands the instructions before you continue. Help the survivor focus on one thing at a time
- Make direct eye contact – this helps the survivor focus on what you are saying and follow your instructions
- Give the survivor more time to think
- Slow down so the survivor doesn't feel pressured

Orientation

Orientation is the awareness of time, place and person. After a stroke, the survivor may lose some awareness in any or all of these areas. For instance, the survivor may think the year is 1975, or the season is fall instead of summer. The survivor may think that they are in school instead of a long-term care home. Or, they may not know their correct date of birth or age.

How you can help

- Give gentle reminders and the correct information. Do not make the survivor feel foolish
- Include the date when greeting the survivor. For example: *Good morning, Mrs. Smith Today is Wednesday, October 15th*
- Post a calendar to help the survivor keep track of the day and date
- Use a bulletin board to list personal information and post family pictures
- Limit changes to the survivor's schedule to keep them from getting confused

Memory

Memory means being able to retain and recall personal experiences, information, and skills. Attention is the basis for most types of memory. A survivor who cannot pay attention to new information cannot store it in memory. Memory problems can affect the stroke survivor's ability to learn new information and carry it over to everyday tasks. Stroke can affect different types of memory:

- **Short-term memory:** The name of a person you just met.
- **Recent memory:** What you ate for breakfast.
- **Long-term memory:** Memories from childhood.

How you can help

- Encourage the survivor to use memory aids. These may include a daily planner, calendar, and sticky notes
- Repeat information to help the survivor remember it
- Store items in the same place. Label drawers and cupboards with the contents
- Provide simple, clear information. Provide only the key information. This helps the survivor focus on what is important

- Present new information one step at a time. This allows the survivor to concentrate on one piece of information before moving to the next step
- Use signs or pictures as memory cues. You may want to place a sign on the survivor's door and family pictures on the bulletin board

Case example:

Mrs. Wright has experienced some memory problems as a result of her stroke. She often becomes upset when she cannot remember where familiar items are stored or what she did the day before.

Fiona (her support worker) helps Mrs. Wright by jotting down the day's activities in a journal. When Mrs. Wright is uncertain about an event, she can look it up. As a result of these "reminders", Mrs. Wright often can recall the event. In order to help Mrs. Wright find stored items, Fiona takes care to return each item to the same place. Labels on the outside of Mrs. Wright's cupboard help her to locate items more easily.

Insight

Insight means recognizing and understanding your abilities and limitations. A lack of insight may lead a survivor to perform unsafe actions. For example, a survivor may not recognize that a weak leg makes it unsafe to walk alone.

How you can help

- Make the environment as safe as possible
- Have walking aids and other assistive devices close at hand for survivors with impaired mobility
- Gently remind the survivor about the stroke and the resulting limitations
- Provide the necessary amount of supervision to ensure the survivor's safety

Case example:

Mr. D'Angelo had a stroke three years ago. He thinks he can transfer to and from the toilet independently but in reality requires assistance due to his poor balance. As a result, Mr. D'Angelo is at high risk for falling.

When he was first assigned to assist Mr. D'Angelo, John (his support worker) discussed this issue with Mr. D'Angelo's wife and his occupational therapist. Together, they developed strategies to reinforce with Mr. D'Angelo the need to call for assistance during toilet transfers.

Judgment

Judgment means making the right choices and decisions while being aware of one's own capabilities. With impaired judgment, the survivor may make choices that are not safe, for example, not wearing the right clothing in extreme weather.

How you can help

- Discuss your concerns about the survivor's safety with the team
- With your team members, develop strategies to optimize safety and functioning
- Do not place the survivor in difficult or challenging situations. The survivor may be unable to decide what actions are safe
- Maximize the safety of the environment. If the survivor uses a wheelchair, make sure the wheelchair seatbelt is fastened. If the person uses a walker, keep it within reach

Impulsivity

Impulsivity is acting quickly without thinking things through. Problems with insight and judgment after stroke often lead to impulsivity. The survivor may act on sudden urges that could result in injury. For example, a wheelchair-dependent survivor may attempt to get up quickly without locking the wheelchair brakes.

How you can help

- Encourage the survivor to slow down
- Give clear and specific instructions
- Divide tasks into small steps. This lets the survivor focus on one part of the task at a time. Make sure that the survivor performs one task before moving on to the next. For example, *"Swallow that mouthful of food first. Then you can take another bite."*
- Make the environment as safe as possible. Make sure that walking aids and assistive devices are close by

Sequencing

Sequencing means being able to arrange things or perform actions in the right order. A survivor with sequencing difficulties may be unable to start a task because the survivor doesn't know where to begin. The survivor may do things in the wrong order. For example, the survivor may forget that underwear goes on before pants, and socks go on before shoes.

How you can help

- Give clear step-by-step instructions to help the survivor understand the task
- Help the survivor plan the task. Encourage the survivor to think through the task. Explain the next step to the survivor if needed
- Give the survivor time to practice the task, even though it takes a while or is difficult
- Repeat the task the same way each time

Sample Sequencing

To put on a sweater, the survivor is instructed to:

- a) Put the affected arm into its sleeve first
- b) Put the unaffected arm into its sleeve
- c) Pull sweater over head
- d) Pull sweater down in back

This sequence is repeated in the same order each day.

Problem-solving

Problem solving is being able to recognize a problem and find a good solution. Problems with insight, sequencing, and memory can affect the survivor's problem-solving ability. For example, the survivor may be unable to get toothpaste out of the tube, not realizing that the cap has to come off the tube.

How you can help

- Break tasks into small steps. Focus on one step at a time. This helps the survivor focus on one part of the problem before moving to the next.
 - Give verbal cues. This helps the survivor develop the solution to a problem.
 - Help the survivor identify different ways of solving the problem. Talk about the different ways the problem could be approached.
-

Upon reflection

Think of an everyday task, like brushing your teeth. What challenges might you have if you had problems with memory? What about sequencing? What about attention?

What 3 strategies would you use to support a stroke survivor who has problems with orientation?