

Caring for Patients Who Have Had a Stroke



Target Audience

Home Health Aide (HHA)

Learning Objectives

This learning activity should enable the learner to:

- Define a stroke
- Implement basic care for patients who have had a stroke
- Recognize at least three complications following a stroke

Caring for Patients Who Have Had a Stroke

Stroke is a leading cause of disability and death in adults in the United States. Therefore, it is a common problem seen among patients receiving home care. Patients who have had a stroke typically have some weakness and difficulty caring for themselves. Home care staff need to understand how best to care for these patients to attain or maintain their highest practicable physical, emotional, and psycho-social well-being.

What is a Stroke?

A stroke happens when there is a block in the blood flow to the brain, or when a blood vessel in the brain bursts and leads to bleeding. This results in a part of the brain not receiving sufficient blood (and oxygen) that it requires, which causes brain cells to die. The symptoms of a stroke usually appear in the parts of the body controlled by the affected areas of the brain.

There are two types of stroke:

- **Ischemic stroke** – Occurs due to blood clots or other particles blocking blood vessels in the brain.
- **Hemorrhagic stroke** – Occurs when an artery in the brain bursts and leaks blood. The bleeding causes pressure on the brain cells, damaging them.

Different parts of the brain control different functions. The effects of the stroke on function will depend on the area of the brain that was damaged.

- **Frontal lobe** – Controls voluntary muscle movement, personality, concentration, organization, and problem solving (reasoning). Patients suffering damage to their frontal lobe may exhibit apathy, irritability, loss of a sense of humor, and even jealousy (Vega, 2023).
- **Parietal lobe** – Controls touch, pressure, temperature, understanding speech, and expression of thoughts. Patients may exhibit frustration or anxiety because they cannot understand what they are hearing and may become angry due to their inability to express themselves.
- **Temporal lobe** – This lobe, along with the frontal lobe, is responsible for emotions and personality. Damage to this area of the brain can cause paranoia, violent or aggressive behaviors, and abnormally enhanced sexuality (Vega, 2021).
- **Occipital lobe** – Controls vision and visual recognition. Patients may suffer vision loss or even blindness and may become anxious, frustrated, or depressed due to these changes (American Stroke Association, 2022).

A temporary blood clot causes a transient ischemic attack or TIA (aka “mini-stroke”). Although the symptoms are similar to an actual stroke, they are temporary and usually resolve within 24 hours. While TIAs often do not cause permanent damage, they are a warning sign for an increased risk of stroke.

Stroke Risk Factors

According to the Centers for Disease Control and Prevention (CDC), certain medical conditions can increase the risk of a stroke. The leading risk factors for stroke are:

- Smoking
- Physical inactivity
- Obesity
- High cholesterol
- Diabetes
- Diet high in saturated fats, trans fat, and cholesterol
- High blood pressure

Effects of a Stroke

Strokes tend to affect many different functions. The exact impact depends on the part of the brain affected and the amount of damage that has occurred.

Movement

Commonly, patients who have had strokes will have different degrees of paralysis on one side of their bodies. This is called hemiplegia. The side of the body that is paralyzed will be opposite to the side of the damaged brain. For example, if the right side of the brain is damaged, the left half of the body will be paralyzed. Some patients may have some weakness, while others may be totally unable to move any part of their body on the affected side. Often, the side of the face that is affected will droop.

Sensation

Strokes can affect the senses. For example, vision can be impaired. One such impairment may be blindness in the same half of each eye. The half affected is the same side of the body that is paralyzed. If the person is paralyzed on the right side of the body, he or she could be unable to see out of the right side of both eyes. It is essential to know if a patient has this type of impairment, because staff would then need to take special care to ensure water pitchers and other items the patient needs are not on the side where he or she cannot see them. When approaching a patient from the side, it is important to speak first to avoid startling them. Other senses that strokes can affect include hearing and the sense of touch, such that the person doesn't feel pain and pressure.

The inability to sense normal signals in the environment can cause patients to become confused, irritable, restless, and paranoid (highly suspicious). Additionally, they may hallucinate, seeing or hearing things that aren't real, which can result in behavior issues.

Speech and Language

Patients who have had a stroke can have problems understanding and communicating words. This is called aphasia. There are different types of aphasia. Some types involve problems understanding language; others involve issues selecting the right words. Some patients who have had a stroke can understand language but have trouble physically speaking. This is called dysarthria. The type of stroke (right-sided or left-sided) a person has will determine the type of speech and language problems that occur.

Patients paralyzed on the left side (left hemiplegia) usually understand what is spoken to them and know the words they want to speak but may not be able to pronounce the words. Their problem lies in the area of speech, not language.

Patients with right hemiplegia (paralyzed on the right side) can have difficulty with speech and language. They may not understand words, be able to select the correct words to use, or pronounce the words. They may make up sounds or words to express themselves. For example, they may call their bed "tem" or call their daughter "woon."

Be sure these patients understand what has been said. For instance, if a patient who has had a stroke says “okay” to everything said to them, don’t assume this means okay. Work on some questions that require an answer other than “okay,” such as “Did you enjoy the activity today?” or “Is this a department store?” It is wise to ask the nurse leader at the agency the type of speech or language problem a patient has and the suggested care if the CNA doesn’t understand the patient.

Perception

Patients with a stroke on the right side of the brain may have problems with perception. They may ignore the left side of their bodies or not be aware of things going on in the left side of the room. They often have trouble judging depth and may miscalculate the height of a chair or step. They can also lack the ability to sense how much time has passed. For example, they may ask at 10 am if it is time for lunch, and staff respond, “No, lunch is at noon.” Fifteen minutes later, they may again ask if it is time for lunch because they do not have a sense of how much time has passed.

Some patients can understand language, so staff may not expect the patients to have these difficulties with perceiving their bodies or environment. However, it is important that the caregiver does not overestimate their capabilities. Protect them from safety risks that can result from ignoring their right side or misjudging their environment. Before providing care, check with the agency nurse or family member rather than taking the patient’s word for what they can and can’t do, especially if this is the first time you care for this patient.

Memory

Any damage to the brain can cause memory impairments. In general, patients who have had a stroke have difficulty remembering many things at once. For example, if given multi-step instructions such as “Wave with one hand, say ‘Hello,’ and nod your head,” they may not be able to remember what was said after “wave with one hand.” It is helpful to break instructions into single steps and allow one task to be done before giving instructions for the next.

Patients who have had a stroke may have difficulty applying something they learned from one setting to another. For example, the physical therapist may have taught a patient how to transfer from the bed to a wheelchair. However, when the patient needs to transfer from a toilet to a chair, they may not know what to do. Be patient and re-teach the steps. Patients with left hemiplegia tend to have problems remembering things about their environment, such as the location of the bathroom or their closet. Some patients may also have more difficulty recalling words, such as a person’s name.

To reduce patients’ frustration and confusion, give them new information one step at a time, follow routines, use familiar objects, and offer reminders.

Eating

Patients who are hemiplegic may be able to still feed themselves, but may require a little assistance. Since they may not have use of one hand and arm, these patients will need to have their plates set up, food cut up, bread buttered, and drinks within reach.

Many assistive devices can help patients feed themselves, such as large-handled utensils, nonslip plates, cups with special handles, and plate guards to prevent food from slipping off the plate. The physical or occupational therapist can help to find equipment that could be helpful.

Always review the care plan and procedure for feeding paralyzed patients. These patients are often on special diets or fed in unique ways due to swallowing difficulties or risk for aspiration. Also, be sure to pay attention to and report problems observed when these patients eat, such as more difficulty swallowing or choking.

Behavior

Some patients who have had a stroke may tend to have impaired judgment. They may overestimate their capabilities and try to do things they cannot do. They say they can do things independently when they actually cannot, such as feeding themselves or standing up. Rather than take their word, check with the agency office, family, read the care plan, and observe the patient.

A stroke can cause a patient to have a short attention span. Don't expect them to sit still through a long movie. Instead, keep them entertained with a variety of shorter activities.

All types of strokes can also cause some loss of emotional control. This often appears as the patient crying easily and being depressed. Sometimes, there can be an inappropriate display of anger or laughter. Sometimes, staff can help the patient to stop the behavior by interrupting it and diverting attention to something else.

Having a stroke is emotionally challenging. Reacting to patients' negative behaviors with anger and frustration only upsets them more. This can result in more behavioral problems and distress for patients. Patience and understanding will go a long way in reducing bothersome behaviors and improving patients' function.

Conditions Patients are at Increased Risk for After a Stroke

Patients who have had a stroke are at increased risk for the following conditions. Interventions can be put in place to help prevent some of these conditions from occurring.

- Falls
- Contractures
- Pain Syndrome
- Depression
- Bowel and bladder incontinence
- Venous thrombosis or blood clot
- Skin breakdown
- Weight loss
- Poor personal hygiene

Areas the CNA Can Help Monitor for Changes in Condition Following a Stroke

Alert the agency office for:

- Signs and symptoms of a seizure (e.g., a blank stare, uncontrolled movements or jerking, temporary confusion)
- Changes in mobility
- Increased stiffness in arms, hands, and/or legs
- New onset of pain
- Changes in continence status
- Changes in mood or behavior
- Feelings of anxiousness or depression
- Difficulty thinking, concentrating, or remembering things
- Sudden onset of numbness or weakness in the face, arm, or leg, especially one side of the body
- Difficulty seeing in one or both eyes
- Sudden severe headache with no known cause
- Fatigue
- Nausea and/or vomiting

Care of the Stroke Patient

Although every patient is an individual with unique needs, there are some general measures to consider when caring for a patient after a stroke.

- Assist in positioning to prevent contractures, relieve pressure, and attain good body alignment.
- Splinting can be used to prevent flexion (contractures) of the affected extremity.
- Prevent contracture of the affected shoulder with a pillow placed in the axilla (armpit).
- Elevate the affected arm to prevent edema.
- Provide full range of motion during routine care to maintain joint mobility.
- Encourage exercise to prevent venous stasis, which may predispose the patient to thrombosis and pulmonary emboli (blood clots).
- Help the patient maintain balance in a sitting position, then balance while standing, and begin walking as soon as standing balance is achieved.
- Encourage personal hygiene activities.
- Ensure good nutrition and hydration.
- Approach the patient with a decreased field of vision on the side where visual perception is intact.
- Track the patient's voiding pattern and offer a urinal or bedpan on the patient's voiding schedule.
- Be consistent in the schedule, routines, and repetitions; a written schedule, checklists, and audiotapes may help with memory and concentration, and a communication board may ease speech and language challenges.
- Frequently assess skin for signs of breakdown, with emphasis on bony areas and dependent body parts.

Knowledge Check

1. A stroke can be due to which of the following?

- a. Ruptured blood vessel
- b. Hitting one's head
- c. Blood clot
- d. Both a and c

2. Which of the following are risk factors for a stroke?

- a. Smoking
- b. High blood pressure
- c. High cholesterol
- d. All of the above

3. A patient who has had a stroke is at increased risk for all except which of the following?

- a. Pressure injury
- b. Change in mood or behavior
- c. Improved hearing
- d. Difficulty seeing

4. The CNA can do which of the following to prevent swelling and pain to a patient's arm affected by a stroke?

- a. Elevate the affected arm
- b. Put the arm in a dependent position
- c. Nothing
- d. Give patient pain medication

5. Mrs. Jones had a stroke. She needs directions on how to dress herself. It is best to:

- a. Explain all the steps to her at one time very slowly to give her a sense of the big picture.
- b. Give her one step at a time.
- c. Don't bother to give her instructions and perform the task for her.
- d. Let her do it on her own and correct her when she has done something wrong.

References

- American Stroke Association. (2022). *Personality changes after stroke*. American Heart Association.
<https://www.stroke.org/-/media/Stroke-Files/Support-Group-Resources/Personality-Changes-After-Stroke-Presentation.pdf>
- Vega, J. (2021, September 13). *Frontal, temporal, parietal, and occipital lobe strokes*. Verywell Health.
<https://www.verywellhealth.com/frontal-temporal-parietal-symptoms-3146423>
- Vega, J. (2023, November 21). *The effects of a frontal lobe stroke*. Verywell Health.
<https://www.verywellhealth.com/what-are-the-effects-of-a-frontal-lobe-stroke-3146431>