



Stroke in Persons with Intellectual and Developmental Disabilities (IDD)

BQIS Fact Sheets provide a general overview on topics important to supporting an individual's health and safety and to improving their quality of life. This document provides general information on the topic and is not intended to replace team assessment, decision-making, or medical advice.

Intended Outcomes

- Recognize the signs of stroke.
- Understand the importance of early recognition and treatment.
- Understand the routine health habits that may help prevent stroke.

Definitions

Stroke: An event where blood does not circulate to the brain, causing brain cells to die and resulting in brain damage.

Transient ischemic attacks (TIA): Warning signs of a stroke; may have similar signs as a stroke but typically only last a short time, from a few minutes up to 24 hours.

Facts

- A stroke or “brain attack” most commonly occurs in two ways:
 - When an artery that takes blood to the brain gets blocked by a blood clot (embolic stroke)
 - When a blood vessel that serves the brain bursts (hemorrhagic stroke)
- Each section of the brain controls different abilities within the body. When brain cells die during a stroke, abilities controlled by that section of the brain may be lost, such as:
 - Movement of muscles in one part of the body
 - Knowing how to put words together to speak
 - Being able to recall old memories



- The permanent effects of a stroke depend on:
 - **How soon the individual gets medical help;**
 - Where in the brain the stroke occurs; and
 - How many brain cells die
- In the United States, stroke is the third leading cause of death.
- Stroke can happen to anyone at any time, regardless of race, sex or age.
- Strokes happen more often in men than women at younger ages, but not at older ages.
- Those of African American, Hispanic, Asian and Pacific Island descent have almost twice the risk of a first stroke compared with those of Caucasian descent.
- Individuals with IDD have a similar risk for stroke as the general public, **but seeing the warning signs in this population may be more difficult.** Previous abnormalities in movement, thinking or speech may make a sudden change in function less visible to the caregiver.
- The majority of people who have a stroke will have some new disability. For example, someone who has a small stroke may experience only minor weakness of an arm or leg. Individuals who have larger strokes may become paralyzed on one side or even die.
- If you see any of the following symptoms, call for emergency help immediately. **The sooner you get help,** the better the chance that emergency treatment will prevent further or permanent damage. The goal is to **get to the emergency room within one (1) hour of the onset of signs of a stroke.**

Signs of stroke in individuals with IDD:

- Sudden numbness or weakness of face, arm or leg - especially on one side of the body
- Sudden confusion, drowsiness, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes, squinting, covering or rubbing an eye
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden severe headache with no known cause



- TIAs or “mini strokes” are warning signs of a stroke:
 - They show the same symptoms of a stroke
 - Symptoms last only a few minutes
 - Most strokes happen without warning of TIAs
 - Call for emergency help immediately if you suspect a TIA. Medical care for TIAs is critical to prevent a permanent stroke.
- Everyone has some stroke risk. There are some risks that are beyond our control and those we can work to improve. Those with medical risks should be receiving regular medical care to decrease the chance of further stroke.

Important medical risks include:

- A previous stroke
- A previous TIA or mini-stroke
- High cholesterol
- High blood pressure
- Heart disease
- Atrial fibrillation (a heart rhythm problem)
- Carotid artery disease (narrowing of the artery to the brain)
- Diabetes

Risks we can control:

- Obesity
- Smoking
- Alcohol use
- Treatment for high cholesterol, high blood pressure, heart disease and diabetes

Risks we can't control:

- Being over age 55
- Being male
- Being African American, Hispanic or Asian/Pacific Islander
- Having a family history of stroke or transient ischemic attack (TIA)



- How to treat a stroke:
 - Prevention: Initiate methods to treat underlying risk factors, like high blood pressure and diabetes.
 - Urgent/emergency treatments: Attempts to stop a stroke while it is happening by quickly dissolving the blood clot or by stopping the bleeding in the brain.
 - Rehabilitation: Helps individuals work to possibly regain some of their strength and function after a stroke.

Recommended Actions and Prevention Strategies

1. To assist doctors in recognizing a change in status in an emergency situation, maintain and have available complete health history and medical summaries for individuals with IDD including:
 - Clear documentation of chronic conditions
 - Neurologic abnormalities, such as weakness, or existing eye, arm or leg abnormalities
 - Information about how the individual typically communicates
 - Usual gait/movement patterns

(see the **Health Record Form** as a possible way of recording this information)
2. If you think someone with IDD may be having a stroke, act F.A.S.T. and do this simple test:
 - F = FACE:** Ask the individual to smile. Does one side of the face have a new droop?
 - A = ARMS:** Ask them to raise both arms. Does one arm drift downward or move differently than usual? Or is there a change in leg movement or balance?
 - S = SPEECH:** Ask the individual to repeat a simple sentence that would typically be easy for him/her to say. Does the speech sound more slurred, or strange?
 - T = TIME:** If you observe any of these signs, it's time to call 911 or get to the nearest stroke center or hospital within one (1) hour.



3. If you think someone may be having a stroke, call 911 and get to medical care within one (1) hour.
 - Transport by car can delay treatment.
 - Gather important information for emergency personnel and to take to the hospital: medication list, allergy list, baseline vital signs, insurance information, contact information for the key decision maker, i.e. guardian, description of the individual's usual abilities and predictable behavior issues (see the **Health Record Form** as a possible way of recording this information).
 - Relay important information about the individual to the emergency personnel, such as if they are unable to take pills by mouth, communication means, special positioning needs, other health concerns, etc.
 - Assist emergency personnel as needed to assess and treat the individual. Vital signs will be taken, oxygen may be started, and/or emergency medication may be given.
4. Accompany individual to the hospital to support the person, provide information and receive health education.
5. Assist individuals to decrease their chances of having a stroke by:
 - Maintaining a healthy weight
 - Measuring body cholesterol regularly as recommended by the physician
 - Checking blood pressure at least once each year - more when there is a history of high blood pressure
 - Avoiding foods that are high in fat, cholesterol, and salt (sodium)
 - Participating in regular exercise (30 minutes of movement per day as a goal or as directed by physician)
 - Limiting alcohol intake to one (1) or less drinks per day
 - Avoiding smoking and second hand smoke
 - Taking medication as directed and keeping blood pressure under control (if individual has high blood pressure)
 - Taking medication as directed and keeping blood sugars under control (if individual has diabetes)
 - Taking blood thinners such as aspirin for prevention - as directed by a doctor



6. Make sure a Risk Plan is in place for individuals at risk of a stroke, including strategies to address individualized needs; tracking, monitoring, and analyzing data; notification thresholds; and staff training.

Learning Assessment

The following questions can be used to verify a person's competency regarding the material contained in this Fact Sheet:

1. What is the critical time frame in getting to medical care after the start of a stroke?
 - A. 30 minutes
 - B. One (1) hour
 - C. Six (6) hours
 - D. 12 hours
2. What are the possible warning signs of stroke?
 - A. Sudden weakness in the face
 - B. Sudden weakness in an arm or leg
 - C. Severe headache
 - D. New trouble in speech or confusion
 - E. Any one of the above
3. Which of the following prevention of stroke methods require a doctor's order?
 - A. Healthy eating
 - B. Avoid second hand smoke
 - C. Aspirin therapy
4. D. Blood pressure check Which additional information is particularly important to the doctor when planning the evaluation for a possible stroke?
 - A. Dietary history
 - B. Family history
 - C. Immunizations
 - D. Previous abnormal neurologic exam findings
 - E. History of voids and bowel movements
 - F. B and D
 - G. All of the above

References

Center for Disease Control and Prevention. *Preventing Stroke: Healthy Living*. Retrieved 09/11/2015 from:
http://www.cdc.gov/stroke/healthy_living.htm

National Stroke Association. *What is a stroke?* Retrieved 09/11/2015 from:
<http://www.stroke.org/understand-stroke/what-stroke>

U. S. National Library of Medicine: MedlinePlus. *Stroke*. Retrieved 09/11/2015 from:
<https://www.nlm.nih.gov/medlineplus/stroke.html>

Learning Assessment Answers

1. B
2. E
3. C
4. F