Effects of Right Middle Cerebral Artery Stroke

Arteries carry blood that contains oxygen to the brain. The flow of blood through the arteries can stop if the artery is blocked. A stroke, also called a cerebrovascular accident or CVA, happens when an artery to your brain is blocked. This handout looks at what occurs when a stroke happens in the right middle cerebral artery in the brain.

The middle cerebral artery divides into a right middle cerebral artery and a left middle cerebral artery. The right middle cerebral artery provides blood to a large part of the right side of the brain. The artery divides into smaller artery branches. Based on where the blockage occurs in the artery or in the branches, the effects will vary. Damage most often can cause changes in:

- Movement and sensation
- Attention, memory and judgment
- Vision
- Speech

More on next page ➔
Less common are other changes such as unwanted movements and sweating on the left side of the body.

If the stroke is in this artery, many of the problems will show up on the left side of the body. Ask your doctor or nurse if you are not sure which artery had the blockage and stroke.

**Changes in Movement and Sensation**

A change in movement or weakness occurs on the left side of the body. Based on where the stroke occurred, weakness may be worse further away from the center or trunk of the body. For instance, moving the knee or foot may be more difficult than moving the hip.

The muscles of the mouth, the tongue, and throat may be affected making it hard to speak or swallow. The person’s speech may also sound monotone and flat.

The person may not feel when he or she is being touched or know where they are being touched. For example, something touching their foot may feel like someone touching their leg. Or something touching their left hand will feel like it is touching their right hand. They may not be able to tell what an object is by touching it. The person may not feel pain and temperature in that area.

The person may not know where their body is and how it is moving. The person may feel as if they are sitting straight up, when they are leaning to the side.

The person may have problems looking to the left side. They may have problems moving their eyes toward the left, and moving their head in that direction. This can be due to the loss of movement or it may also be a problem called **left neglect**.

Because the part of the brain that controls their left side is not working, the person may not remember it is there, or that they are not able to move it.

The person may only eat food that is on the right side of the plate, or only brush the hair on the right side of their head. They may also have trouble paying attention to anything that happens on their left side, including someone standing to the left and speaking to them.
Changes in Attention, Memory and Judgment

The person that had a stroke on the right side may have problems with attention. They may not be able to focus to complete a task, even when it is something they wish to do.

Problems with memory and motivation are common. The person may be very impulsive and have poor judgment.

A person with this type of stroke may not be able to understand that they have had a stroke, or believe they have any problem at all. The person may not be able to stand because his or her leg is weak but will insist that he is able to walk or run normally. He or she may then try to explain their problems with made up answers. For example, “My leg gave out because someone pushed me.”

Problems understanding where things are and remembering them is common. This makes it hard for the person to recognize where they are and how to get around and find things. For example, the person may have problems finding the bathroom in their own house, or finding an object that was put down in front of them. The person may have problems recognizing people.

A stroke in the right middle cerebral artery often will cause the person to be confused. They have a hard time understanding what is going on around them. They may have problems paying attention to important things and may become very concerned about things that are not important. It can be hard for them to form new memories. This makes it harder for their confusion to go away.

Changes in Vision

The person may lose part of their field of vision on the left side in one or both eyes. They can have double vision.

Changes in Speech

Changes in speech are rare in this type of stroke because a few people have the language control areas on the right side of the brain. Most people have these parts on the left. Both of these areas are supplied by
different parts of the middle cerebral artery. The problems that may occur are types of aphasia.

- **Non-fluent aphasia**
  Person will have trouble speaking words out loud. Their sentences are short and missing words. Instead of saying, “I want to take the dog for a walk,” they would say, “dog walk.” Their speaking will be very slow and difficult.

- **Fluent aphasia**
  Person speaks in full sentences but will say the wrong words or made up words. Instead of saying, “I want to take the dog for a walk,” they would say, “I used to take the cars for a salk.”

- **Global aphasia**
  Person has problems with speaking and understanding what is said to them.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.