

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Definition of Cerebrovascular accident(CVA)

By:

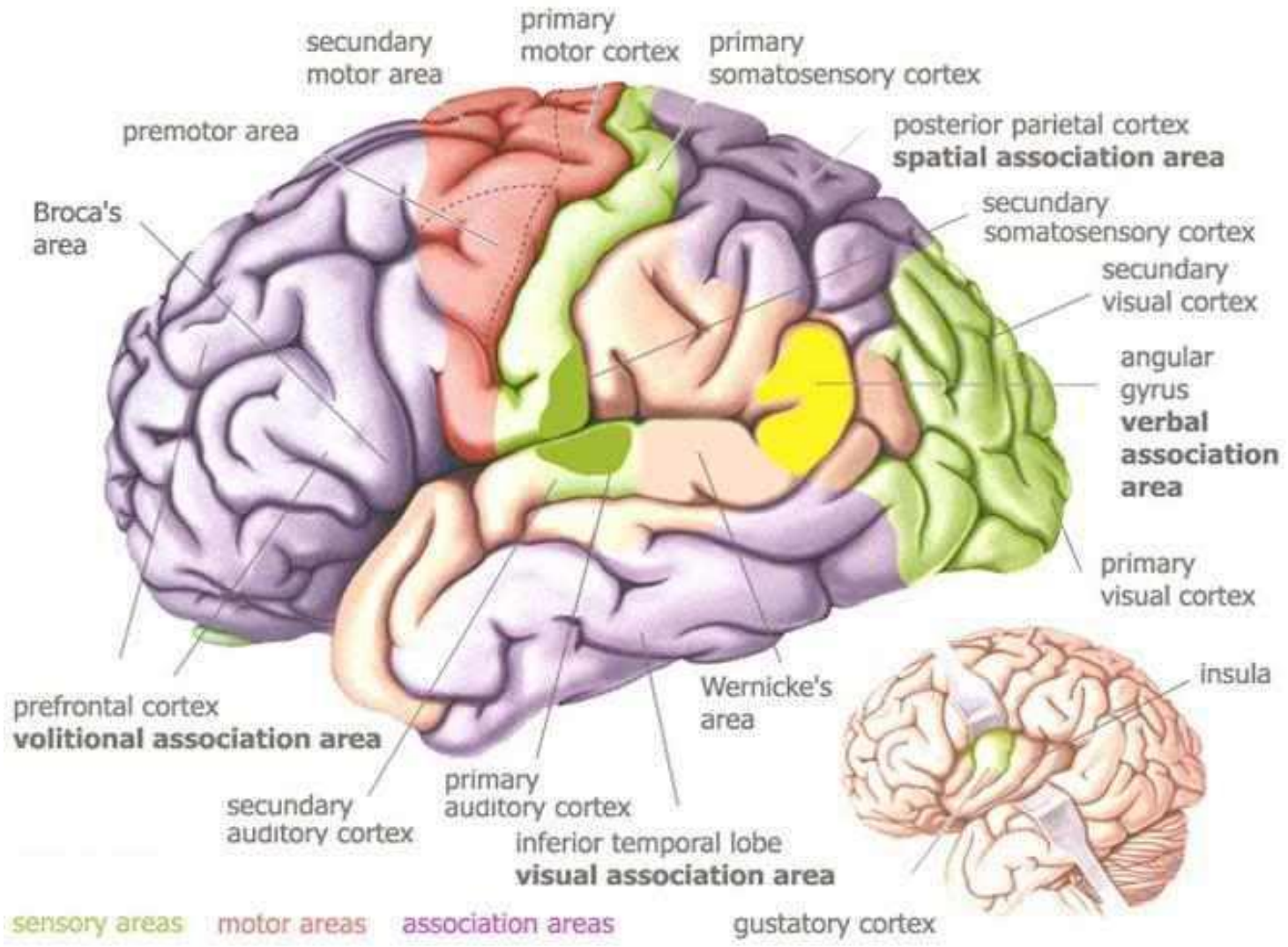
Dr.Morteza Farazi

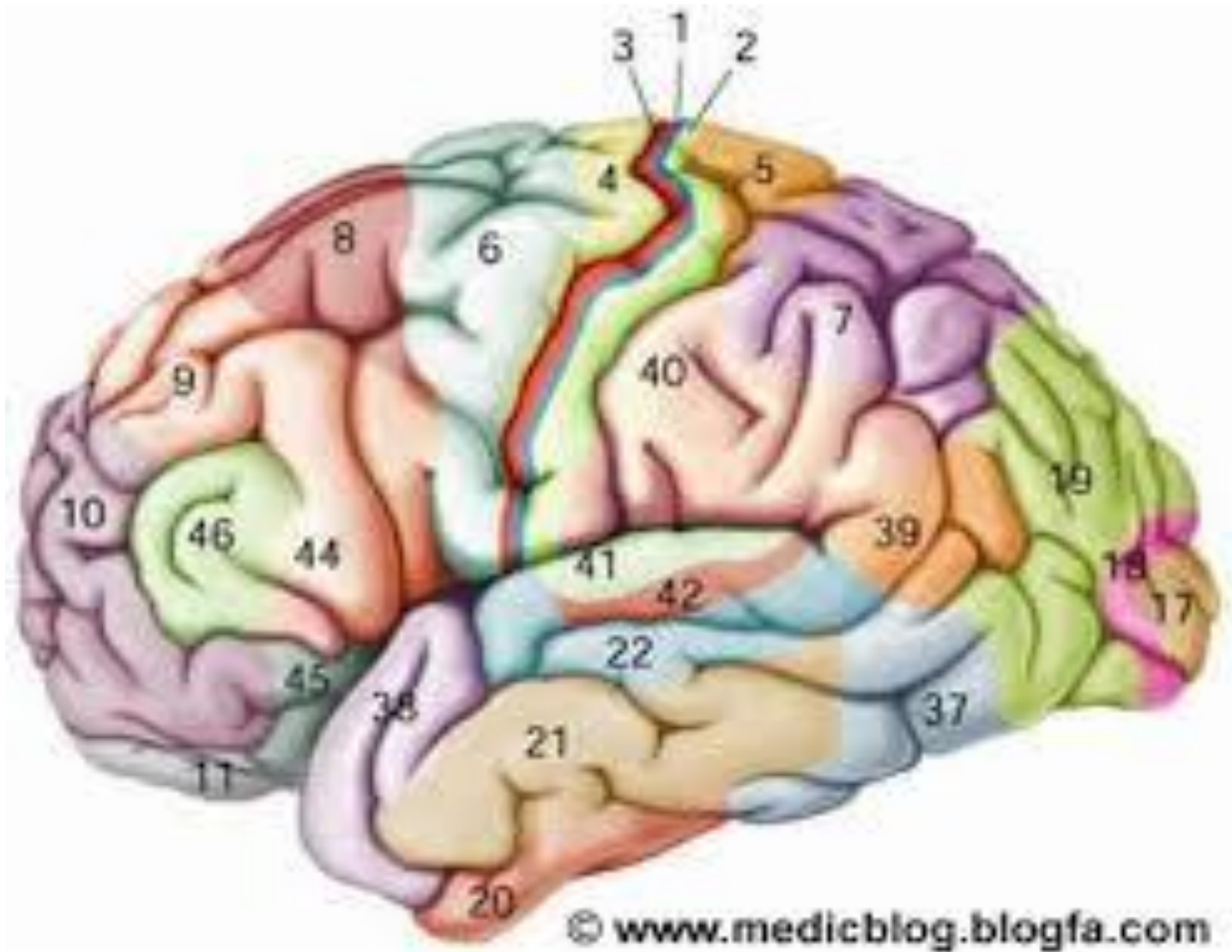
Cerebrovascular accident

The sudden death of some brain cells due to lack of oxygen when the blood flow to the brain is impaired by blockage or rupture of an artery to the brain. A CVA is also referred to as a stroke.

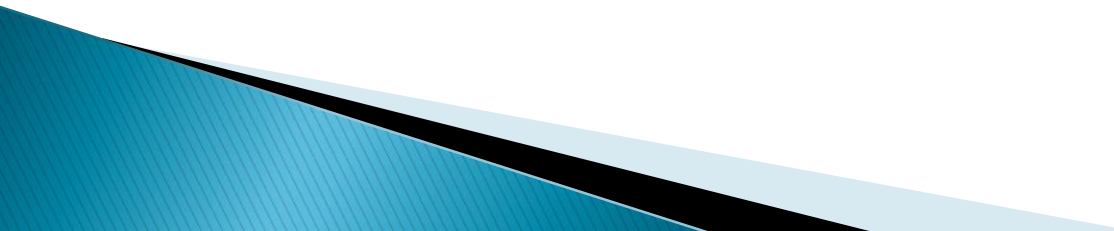
Symptoms of a stroke depend on the area of the brain affected. The most common symptom is weakness or paralysis of one side of the body with partial or complete loss of voluntary movement or sensation in a leg or arm. There can be speech problems(type of aphasia) and weak face muscles, causing drooling. Numbness or tingling is very common. A stroke involving the base of the brain can affect balance, vision, swallowing, breathing and even unconsciousness

The causes of stroke: An artery to the brain may be blocked by a clot (thrombosis) which typically occurs in a blood vessel that has previously been narrowed due to atherosclerosis ("hardening of the artery"). When a blood clot or a piece of an atherosclerotic plaque (a cholesterol and calcium deposit on the wall of the artery) breaks loose, it can travel through the circulation and lodge in an artery of the brain, plugging it up and stopping the flow of blood; this is referred to as an embolic stroke.





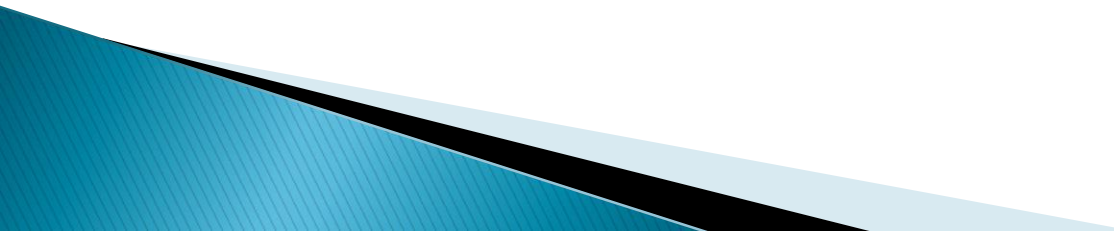
The diagnosis of stroke: involves a medical history and a physical examination. Tests are done to search for treatable causes of a stroke and help prevent further brain damage. A CAT scan (a special X-ray study) of the brain is often done to show bleeding into the brain; this is treated differently than a stroke caused by lack of blood supply. A CAT scan also can rule out some other conditions that may mimic a stroke.



Stroke look-alikes: Just because a person has slurred speech or weakness on one side of the body does not necessarily mean that person has had a stroke. There are many other nervous system disorders that can mimic a stroke including a brain tumor, a subdural hematoma (a collection of blood between the brain and the skull) or a brain abscess (a pool of pus in the brain caused by bacteria or a fungus). Virus infection of the brain (viral encephalitis) can cause symptoms similar to those of a stroke, as can an overdose of certain medications. Dehydration or an imbalance of sodium, calcium, or glucose can cause neurologic abnormalities similar to a stroke.

Treatment of a stroke: Early use of anticoagulants to minimize blood clotting has value in some patients. Treatment of blood pressure that is too high or too low may be necessary. The blood sugar (glucose) in diabetics is often quite high after a stroke; controlling the glucose level may minimize the size of a stroke. Drugs that can dissolve blood clots may be useful in stroke treatment. New medications that can help oxygen-starved brain cells survive while circulation is reestablished are being developed.

Rehabilitation: When a patient is no longer acutely ill after a stroke, the aim turns to maximizing the patient's functional abilities. This can be done in an inpatient rehabilitation hospital or in a special area of a general hospital and in a nursing facility. The rehabilitation process can involve speech therapy to relearn talking and swallowing, occupational therapy for regaining dexterity of the arms and hands, physical therapy for improving strength and walking, etc. The goal is for the patient to resume as many of their pre-stroke activities as possible.



Definition: A spinal cord injury — damage to any part of the spinal cord or nerves at the end of the spinal canal (cauda equina) — often causes permanent changes in strength, sensation and other body functions below the site of the injury. In other words, A spinal cord injury(SCI) is damage to the spinal cord that results in a loss of function, such as mobility and /or feeling.

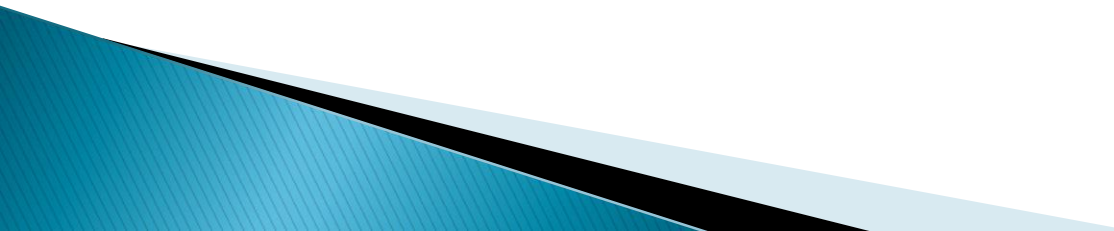
Cuses: Spinal cord injuries may result from damage to the vertebrae, ligaments or disks of the spinal column or to the spinal cord itself. A traumatic spinal cord injury may stem from a sudden, traumatic blow to your spine that fractures, dislocates, crushes or compresses one or more of your vertebrae. It may also result from a gunshot or knife wound that penetrates and cuts your spinal cord.

Spinal cord injuries of any kind may result in one or more of the following signs and symptoms:

- Loss of movement
- Loss or altered sensation, including the ability to feel heat, cold and touch
- Loss of bowel or bladder control
- Exaggerated reflex activities or spasms
- Changes in sexual function, sexual sensitivity and fertility
- Pain or an intense stinging sensation caused by damage to the nerve fibers in your spinal cord
- Difficulty breathing, coughing or clearing secretions from your lungs

Emergency signs and symptoms:

Emergency signs and symptoms of a spinal cord injury after an accident may include:

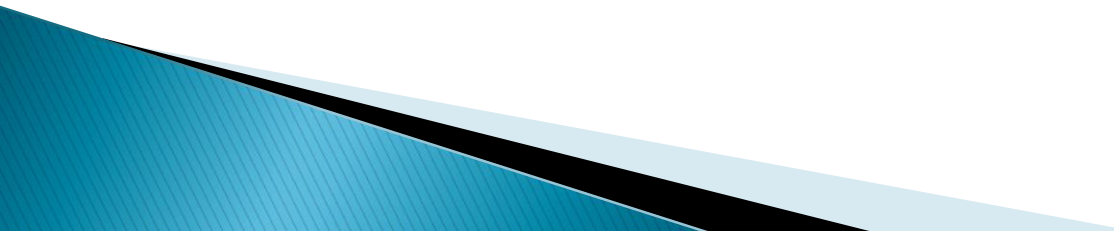
- Extreme back pain or pressure in your neck, head or back
 - Weakness, incoordination or paralysis in any part of body
 - Numbness, tingling or loss of sensation in your hands, fingers.
 - Loss of bladder or bowel control
 - Difficulty with balance and walking
 - Impaired breathing after injury
 - An oddly positioned or twisted neck or back
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Diagnosis

In the emergency room, a doctor may be able to rule out a spinal cord injury by careful inspection and examination, testing for sensory function and movement, and by asking some questions about the accident.

But if the injured person complains of neck pain, isn't fully awake, or has obvious signs of weakness or neurological injury, emergency diagnostic tests may be needed.

These tests may include:

- **X-rays.** Medical personnel typically order these tests on people who are suspected of having a spinal cord injury after trauma.
 - **Computerized tomography (CT) scan.** A CT scan may provide a better look at abnormalities seen on an X-ray.
 - **Magnetic resonance imaging (MRI).** MRI uses a strong magnetic field and radio waves to produce computer-generated images.
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Treatment

Unfortunately, there's no way to reverse damage to the spinal cord. But researchers are continually working on new treatments, including prostheses and medications that may promote nerve cell regeneration or improve the function of the nerves that remain after a spinal cord injury.

The dysarthria associated with spinal cord injury (SCI) is characterized by speech impairments that reflect respiratory dysfunction and its downstream effects on phonation, articulation, and prosody. The exact nature of the dysarthria is determined in large part by the level of SCI and diaphragm function is spared.

Definition of teamwork

work done by several associates with each doing a part but all subordinating personal prominence to the efficiency of the whole.

Teamwork members on CVA & SCI patient

- Neurologist
- Physical medicine specialist
- Speech and Language Therapist
- Physiotherapist
- Occupational Therapist
- Psychologist
- Dietician
- Prosthetists
- Assistive Technologist
- Social Worker
- Family

Teamwork History

The history of importance to the discussion of teamwork in health and treatment dates back to 1920 in the United Kingdom, which achieved better results in improving the quality of treatment.

The importance of teamwork

According to the analysis, teamwork is a dynamic process that includes two or more professional members with common goals and specialized health skills that are gathered in a work and intimate environment for specific and common goals. The importance of teamwork in the field Health care is so important that so far many studies have been done on staff training and team building issues.

Results of teamwork

Results include:

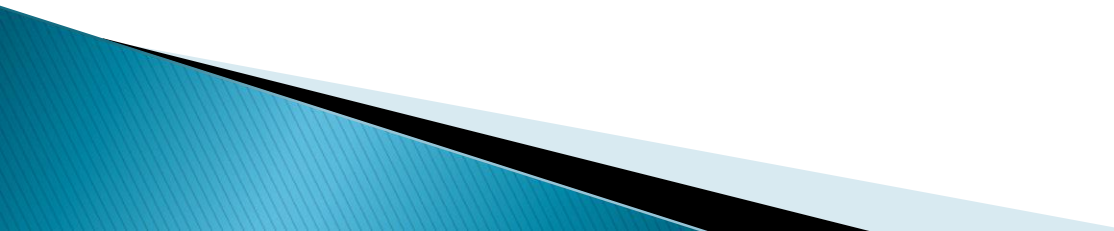
- * Improve the performance results of teamwork
- * Reduce the likelihood of readmission
- * Reduce patients' residence time
- * Increase the physician's ability to communicate with group members
- * Increase the sense of responsibility of caring for patients
- * Improving the safety level of treatment

Factors preventing teamwork

These factors in Iran according to studies include:

- Poor intra-group communication
- Personal differences
- Misconception of asking for help from the patient
- Lack of proper knowledge of work tasks
- Lack of sufficient knowledge about their role in the medical center

The role of team members

- * Expert evaluation by any specialist
 - * Determining treatment goals according to the type and severity of the disease
 - * Consult with team members on the treatment process
 - * Participate team members in team workshops
 - * Expert opinion of team members on patient discharge
 - * Follow-up of the patient after discharge (home care)
 - * If necessary, the final report on the patient's progress in the specialist workshop
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برک در هنگام زوال می افتد و مسموه
در هنگام کمال

بناگر که چگونه می افتی؛ چون برگی
زرد و پایی سبزی سرخ



Thank You

The role of speech therapy in the
rehabilitation of cerebral palsy