



9 lifestyle tips for preventing and managing cardio-cerebrovascular diseases



Quit smoking



Reduce alcohol intake



Low-sodium diet



Exercise



Maintain a reasonable waistline



Have a joyful mindset



Regular checkups/exams



Consistent treatment



Go to the hospital immediately if experiencing symptoms

Contact the CNUH Regional Cardio-Cerebrovascular Center

| | | | |
|--|--------------|---------------------------------------|--------------|
| Treatment information and appointments | 1899-0000 | Online appointment | www.cnuh.com |
| Cardiovascular Medicine outpatients | 062)220-6263 | Cardiovascular Center | 062)220-5412 |
| Neurology outpatients | 062)220-6178 | Cerebrovascular Center | 062)220-5413 |
| Physical & Rehabilitation Medicine outpatients | 062)220-5198 | Heart and Brain Rehabilitation Center | 062)220-5417 |
| Prevention and Management Center fax | 062)220-5418 | Prevention and Management Center | 062)220-5410 |

Contact the CNUH International Medical Center

| | |
|--------|----------------------------|
| Phone | +82-62-220-6016, 6565~6568 |
| E-mail | imccnuh@gmail.com |

In an emergency, immediately dial 119 without the country code.



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광주·전남 권역심뇌혈관질환센터



보건복지부



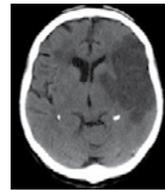
질병관리본부

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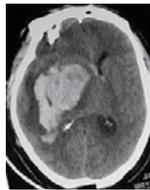


Stroke diagnosis

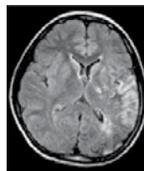
- When the patient arrives at the emergency room, the doctor will check when the symptoms occurred and perform an emergency **computed tomography(CT) scan**.
- In addition, blood tests, urine tests, electrocardiogram tests, and neurological tests will also be performed.
- A CT usually takes a short period of time, and is used to determine whether the stroke is ischemic (cerebral infarction) or hemorrhagic (cerebral hemorrhage). If it is hemorrhagic, the bleeding area will appear white on the scan. If there is no cerebral hemorrhage, an MRI will be used to look further into the brain structure and check for a cerebral infarction.



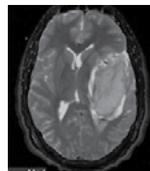
CT findings of cerebral infarction



CT findings of cerebral hemorrhage

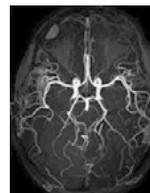


MRI findings of cerebral infarction



MRI findings of cerebral hemorrhage

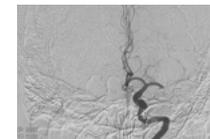
- In case of a cerebral infarction, it is necessary to check the condition of blood vessels more precisely through a MRA (magnetic resonance angiography).



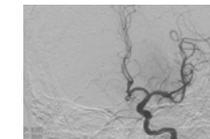
Treatment of stroke

1 Treatment of cerebral infarction

- In the case of a blocked blood vessel in a cerebral infarction, it is imperative that the patient get to the hospital as soon as possible.
- Thrombolytic (tPA)** treatment is possible within 4 hours and 30 minutes after the onset of symptoms. This highly effective treatment involves using drugs to dissolve blood clots blocking the blood vessels in the brain.



Before administration of dissolving agent



After administration of dissolving agent

- Within 6 hours after onset of symptoms, an intra-arterial thrombectomy (EVT)** is performed. If you visit the hospital after 6 hours, even if you cannot receive thrombolytic treatment, you can reduce cerebral edema (brain swelling) or delay the process through other auxiliary treatments (antiplatelet drugs, anticoagulants, etc.) and early rehabilitation treatment.

2 Treatment of cerebral hemorrhage

- For a cerebral hemorrhage with a ruptured blood vessel, medication or surgical treatment is given depending on the patient's condition, such as the bleeding site, cause, and amount of bleeding. If the bleeding is small, it is treated internally until absorption. Surgery may be necessary if there is a large amount of bleeding or if an angiography reveals abnormalities that require surgical treatment.

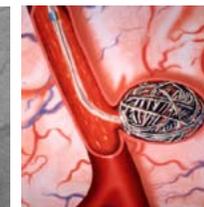


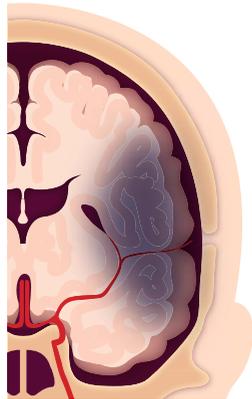
Photo of cerebral angiography through endovascular coiling

Regional Cardio-Cerebrovascular Center

Stroke Diagnosis and Treatment

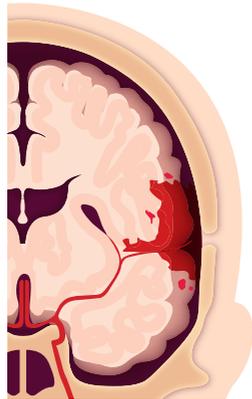
What is a stroke?

- A stroke is a cerebrovascular disease caused by clogged or burst blood vessels in the brain.
- Strokes can be divided into either a cerebral infarction, in which the blood vessels in the brain are blocked and the brain tissues cannot receive blood, or a cerebral hemorrhage, in which brain damage is caused by cerebrovascular vessels bursting.
- Symptoms are similar but treatments are different, so it is important to check whether it is a cerebral infarction or cerebral hemorrhage with a CT or MRI scan.



Cerebral infarction

Stroke (ischemic) in which the blood vessel is blocked and causes brain damage



Cerebral hemorrhage

Stroke (hemorrhagic) in which blood vessels burst and cause brain damage

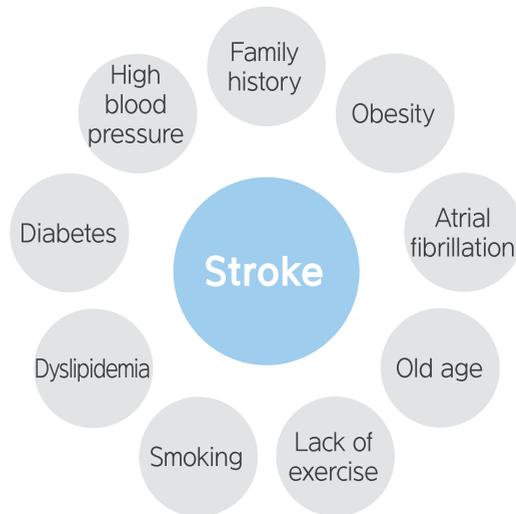
Risk factors for stroke?

Uncontrollable risk factors

- Age, gender, family history, past history

Controllable risk factors

- | | |
|---|--|
| • High blood pressure | • Obesity |
| • Diabetes | • Lack of exercise and physical activity |
| • Smoking | • Nutritional imbalance |
| • Dyslipidemia (hyperlipidemia) | • Excessive drinking |
| • Atrial fibrillation (a type of arrhythmia) | • Stress |
| • Heart diseases such as heart valve disease and angina | |



Stroke symptoms?

- The following symptoms are often easily mistaken as a stroke.

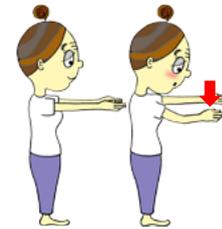
- 1 My hands shake frequently.
- 2 My hands and feet are cold.
- 3 My eyelids tremble/twitch.
- 4 My hands or feet are numb and sore.
- 5 The back of my neck feels stiff.

- It's not likely for the above symptoms to be a stroke. However, it is recommended that you seek medical attention to be sure of any other diseases.

Typical symptoms of stroke



Paralysis on one side of the face (facial palsy)



Loss of strength on one side of the body (hemiplegia)



Poor pronunciation due to speech impairment



Gaze deviation, with the eyes directing to one side

What if you have stroke symptoms?



- In the event of a stroke, it is most important to transfer the patient to an emergency room as soon as possible (within 4 hours and 30 minutes after the onset of symptoms).

- Remembers the time and situation at which the first symptoms appeared and inform your doctor.

- You must never prick your hand with a needle. Piercing the hand can momentarily increase blood pressure and worsen the patient's condition.

- Avoid forcibly drinking water or taking medications such as Cheongshimhwan as there is risk of suffocation.

- Release anything that is tied around the patient's body, such as a tie or belt, to help facilitate the patient's breathing and blood circulation.