

A stroke, what to do?

Neurologie



Beter voor elkaar

The brain and its function

The brain and the spinal cord together form the central nervous system. This system could be compared to a telephone cable system. Through the nerves, which connect the central nervous system with the rest of our body, the brain continuously receives all kinds of messages. The brain registers hearing, sight, smell, feeling, as well as movement. The central nervous system itself also sends messages to and from the body. For example, if you want to move, signals are being sent from your brain through your nerves to your arms and legs. That causes movements to happen. Your breathing and blood circulation are also controlled by the central nervous system.

The brain consists of the upper and lower brain. The upper brain is divided into two halves. The right half of the brain controls the left part of the body and the left half of the brain controls the right part of the body. The area controlling language is usually found in the left part of the brain.

The lower brain controls and coordinates your movements. The brain is very active, both by day and night. It works continuously. The brain requires energy in order to function properly. This energy is produced by using oxygen and nutrients, just like in any other organ. Oxygen and nutrients are delivered by blood. As the brain uses a lot of energy, it would not survive long without it. If the blood supply, and therefore the oxygen supply stops, brain damage occurs within a few minutes. Generally, this damage is irreversible. Part of the brain may be switched off and certain parts of the body will not function any more.

What is a stroke?

A sudden interruption of the oxygen supply to the brain is called a 'stroke' (CVA–Cerebro Vascular Accident). Two main forms of stroke are distinguished:



A blood vessel in the brain is occluded by a blood clot or a vessel in the neck or brain is extremely narrowed, e.g. as a result of calcification of the artery wall. In this situation, the brain receives little or no oxygen. This condition is called brain infarction. If the oxygen to the brain is temporarily decreased it is called a transient ischemic attack (TIA).



A blood vessel in the brain ruptures or bursts open so that blood accumulates in brain tissue. This condition is called brain haemorrhage (bleeding).

Approximately 80% of all stroke patients have had a brain infarction; and about 20% of all stroke patients a brain haemorrhage. An infarction may also occur in the brain stem, which is the connection between the brain and the spinal cord. People with a brain stem infarction tend to suffer from dizziness, nausea, vomiting, blurred speech, swallowing problems, double vision, and loss of movement control. These symptoms may occur in combination with one another but sometimes also separately.

Patients may also suffer from sensitivity disorders on one side of their face and the opposite side of their body. Other complaints that may occur are: loss of strength, hoarseness, sweating, eye trembling, hiccups, droopy eyelid, and facial pain.

What is a TIA?

TIA= Transient Ischemic Attack

In short: a transitory stroke. This is caused by a temporary blood flow disturbance in the brain. The symptoms are similar to a brain infarction but typically disappear within 24 hours. They usually last no longer than a few minutes. Patients may experience symptoms such as speaking problems (the inability to use the right words or to speak properly), double vision or blindness in one eye, one-sided loss of strength or paralysis of one arm and/or leg, a distorted face or droopy corner of the mouth; a whirling feeling, or coordination disturbances.

The consequences of a stroke

The consequences depend on:

- The part of the brain that has been damaged. A stroke in one brain half often causes paralysis of the opposite side of the body. Patients with a stroke of their right brain half usually suffer from paralysis of the left side of their body and vice versa.
- A large stroke with many dead brain cells causes more complaints than a small one with only few dead brain cells. Some patients do not experience paralysis but other symptoms. Below you will find an overview of possible symptoms, but not all patients may experience those symptoms to the same extent.
- Paralysis/ loss of strength/ tingling of the left or right side of the body.
- Loss of eyesight in the left or right side of both eyes.
- Speech problems (aphasia) and/ or blurred speech (dysarthria).
- Swallowing problems.
- Neglect of people or objects, positioned left or right of the patient.
- Problems with three-dimensional perception.
- Slow and insecure behaviour.

Apart from the physical symptoms, perception and thinking disturbances are often seen, causing problems with understanding, seeing, feeling, speaking, planning, reading, doing sums, solving puzzles, and expressing emotions and behaviour.

Stroke treatment

Acute phase (0–24 hrs)

The first phase after a stroke is called the acute phase. A person who has suffered a stroke is often admitted to the hospital. In some hospitals, the patients are admitted to a special unit, the so-called Stroke Care Unit. This is a unit mainly for patients who have suffered a stroke. Treatment is provided by a team of health professionals, each with their specific expertise.

A small group of patients with brain infarction is eligible for treatment with medication aimed at breaking down the blood clot. However, this treatment should start within 4,5 hours.

Further therapy is mainly aimed at prevention and, if necessary, the treatment of complications. For instance, high blood pressure is treated with medication to lower the blood pressure. Brain infarction patients are often treated with anti clotting drugs to prevent thrombosis in the legs. Patients with swallowing difficulties are treated with a fluid drip and/or feeding tube to ensure an adequate fluid intake. In some cases, a specific cause of the stroke is found, such as a severe narrowing of the neck artery. Additional treatment may be required in those cases.

Rehabilitation phase

The major part of the recovery from a stroke takes place in the first six months. Rehabilitation starts during the hospital stay. In the hospital, physical therapy is started in case of paralysis symptoms. The same goes for speech therapy for swallowing, speech or linguistic problems.

The Ikazia Hospital also employs Stroke Care Nurse. The Stroke Care Nurse (SCN) is a specialised professional who nurses, guides and educates patients suffering from CVA (stroke) or TIA (transitory stroke). She performs her tasks both during the hospital stay and after discharge from the hospital.

If necessary, the ergo therapist can give advice about doing normal, daily activities such as washing, getting dressed/undressed, etc.

Many patients (about 60%) are discharged to their homes with or without therapy/ home care. Some patients (about 20%) are not discharged directly to their homes. They need further rehabilitation and are transferred to a rehabilitation centre or a rehabilitation unit in a nursing home. A rehabilitation physician is consulted about this decision.

Other patients (about 20%) will have to live in a nursing home for the rest of their lives.

Long-term treatment

Long-term treatment mainly aims at prevention of a new stroke. Any risk factors are minimalised as much as possible.

Major risk factors and their treatment are:

- Smoking: Quit smoking. It is no use to smoke less. Smoking causes deposits to form in blood vessels and affects cholesterol levels. Please refer to the brochure 'Stoppen met roken' (Nederlandse Hartstichting).
- High cholesterol: A cholesterol level that is too high causes a fatty deposit inside blood vessels. Part of this deposit may break off and travel to the brain, where it may cause a stroke. A high cholesterol level is usually treated with medication. It is also advisable to adjust your eating habits: the brochure 'hoog cholesterol' (Nederlandse Hartstichting) and information about a cholesterol-lowering diet.
- High blood pressure: High blood pressure should be treated with medication and should be checked regularly. Please refer to the brochure 'hoge bloeddruk' (Nederlandse Hartstichting).
- Diabetes Mellitus: Diabetes is also a risk factor. It is important to keep the blood glucose level within the advised range.
- Obesity: Obesity affects the whole body. Heart and blood vessels are increasingly strained. Please refer to the brochure 'Overgewicht' (Nederlandse Hartstichting).

- Narrowing of the neck artery (carotid): Sometimes, a section of the neck artery is severely narrowed. A piece of fat deposit may break off and travel to the brain, where it may cause a stroke. Duplex ultrasound tests are performed to determine whether the neck artery is narrowed. An ultrasound device is used to examine the neck artery. Please refer to the brochure 'Duplex carotiden' (Ikazia Hospital). If the neck artery does show a narrowing, the Stroke Care Nurse or neurologist or neurology resident will further discuss this problem with you.

Information

It is very important to be informed about the disease and its consequences. At Ikazia Hospital, it is the Stroke Care Nurse's responsibility to inform and educate stroke patients and their families. She explains the diagnosis, risk factors, treatment, therapy and, if applicable, the follow-up path. You should receive all relevant information brochures. They will be available for questions after your discharge from the hospital as well. Outpatient clinic appointments with the SCN at the Neurology Outpatient Clinic will be arranged for you if necessary.

Stroke Care Nurses:

Are not available during holidays and incidental days off.

010-297 51 90

Please refer to the brochure 'Stroke Care verpleegkundige' (Ikazia Hospital). Unfortunately, at the moment all additional brochures mentioned are available in Dutch only.

Do you have any further questions?

Please note your questions and discuss them with the Stroke Care Nurse at your outpatient clinic appointment if needed.



Let op: In deze folder staat informatie die belangrijk is voor u. Heeft u moeite met de Nederlandse taal? Lees deze folder dan samen met iemand die de informatie voor u vertaalt of uitlegt.

Please note: This leaflet contains information that is important for you. If you have trouble understanding the Dutch language, you should read this leaflet together with someone who can explain the information or translate it for you.

Dikkat: Bu broşür sizin için önemli bilgiler içerir. Hollandaca okumakta zorlanıyor musunuz? O zaman broşürü bilgileri sizin için çeviren ya da açıklayan biriyle okuyun.

Uwaga: Ta ulotka zawiera ważne dla Ciebie informacje. Masz trudności ze zrozumieniem języka holenderskiego? Przeczytaj tę ulotkę razem z kimś, kto przetłumaczy jej treść lub będzie w stanie wyjaśnić zawarte w niej informacje.

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