

## AF-related Stroke

This information factsheet is intended for people with atrial fibrillation (AF) and their caregivers, and gives a brief outline of strokes and AF-related strokes, their symptoms, and what to do in an emergency.

### AF and Stroke

AF is a type of irregular heart rhythm. It means that your heart may not be pumping as well as it should. As a result, blood clots are more likely to form in your heart, increasing your risk of having an AF-related stroke.

A person having no other problems apart from suffering from AF (that is, so called 'lone AF') over the age of 65, has a fivefold increase in their risk of suffering from an AF-related stroke compared with someone without AF. This risk of stroke is present even if the AF comes and goes (so called Paroxysmal Atrial Fibrillation or PAF) or if it is there permanently. The risk is there whether the AF causes symptoms or not.

Patients who suffer from AF but take no anticoagulation medication have a 35% chance of eventually suffering from an AF-related stroke. Even with appropriate anticoagulation, an individual still runs a small risk of suffering from an AF-related stroke and it is important to recognize the signs and what you, or someone with you, should do if an AF-related stroke occurs.

### What is a stroke?

Stroke is a 'brain attack' where the oxygen supply to an area of the brain has been disrupted. The two main kinds of stroke are:

**Ischemic stroke:** This is the more common form of stroke, and it occurs when the blood supply to the brain is blocked by a clot or a narrowing of the artery. The brain becomes starved of oxygen, so the brain cells suffocate. Anticoagulants are prescribed to safeguard patients against this kind of stroke.

**Hemorrhagic stroke:** This happens when one of the blood vessels in the brain leaks and the raised blood pressure forces blood into the brain tissue (an 'intracranial bleed'). This causes cells to die because of direct trauma of the blood flow.

### AF-related Stroke Risk

The following scoring system ('CHA<sub>2</sub>DS<sub>2</sub>-VASc') can be used to calculate individual risk of AF-related stroke. In this system, a score of 1 or more for men and 2 or more for women suggests that an anticoagulant should be considered, to reduce their risk of an AF-related stroke.

CHA <sub>2</sub> DS <sub>2</sub> -VASc scoring system	
risk factor	points
Congestive heart disease	1
Hypertension	1
Age (75 years +)	2
Diabetes	1
Stroke or previous TIA	2
Vascular heart disease	1
Age (65 – 74 years)	1
Sex (female)	1
<b>CHA<sub>2</sub>DS<sub>2</sub>-VASc Score</b>	

### Preventing an AF-related Stroke

If you have AF, you should discuss your AF-related stroke risk with your doctor and ensure preventative measures are in place to lower your risk of an AF-related stroke. Maintaining a healthy lifestyle by eating a balanced diet, exercising regularly, not smoking, and minimizing alcohol intake to improve your overall health and reduce AF-related stroke risk.

Medical treatment options include anticoagulation which increase the time it takes for blood to clot, thus reducing the risk of AF-related stroke. Anticoagulants include Warfarin and non-vitamin K antagonist oral anticoagulants such as Dabigatran, Rivaroxaban, Apixaban and Edoxaban. There are risks associated with anticoagulants such as excessive bleeding if you fall or hurt yourself, but in most people the benefits outweigh the risks.

### Symptoms or signs of a stroke - 'The FAST test'

The symptoms of a stroke can be recognized by using the FAST test, which is the test also used by the paramedics to diagnose a stroke.

FAST is a useful and simple tool you can use to diagnose a stroke:

#### Facial weakness

- Can the person smile?
- Has their mouth or eye drooped?

#### Arm weakness

- Can the person raise both arms?

#### Speech problems

- Can the person speak clearly and understand what you say?

#### Time to call 911

- If a person fails any of the tests above, it is time to call for help by calling 911.

Stroke is an **emergency**. Receiving hospital assistance quickly can limit further damage and can help someone make a full recovery. **If not treated appropriately, a stroke can result in permanent disability and even be fatal.**

### If the symptoms settle quickly

In a situation where the symptoms of the FAST test seem to disappear quickly, and normal body function is returned, may suggest that a 'mini-stroke' (a 'Transient Ischemic Attack' or TIA) has occurred. Although immediate help may not be required, the patient should be seen by their primary care physician promptly to be referred to a stroke specialist. These mini-strokes can be signs that there is a risk of a more major stroke.

### Outcome

The cause of the stroke will determine the treatment options. Recovery may be complete after a short period of time, but long term recovery and rehabilitation may be necessary depending on the severity of the stroke. It is therefore important if you have AF that you speak to your doctor about reducing your risk of an AF-related stroke by making lifestyle changes and taking an anticoagulant.

**STROKE IS A MEDICAL EMERGENCY  
AND ASSISTANCE SHOULD BE  
SOUGHT WITHOUT DELAY!**

### Further information

Please see also the AF Association Preventing AF-related stroke: anticoagulation booklet.

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