

# Redfish

While you may be facing a difficult situation, learning to understand the connection between AFib and stroke will allow you to take better care of your health in the long-term.

Most importantly, speaking to, and following your doctor's advice will keep you on the right track. There are blood thinner medications available that can reduce your risk of stroke, including Coumadin<sup>®</sup> (Warfarin), Pradaxa<sup>®</sup> (dabigatran etexilate), Xarelto<sup>®</sup> (rivaroxaban), Eliquis<sup>®</sup> (apixaban), and Lixiana<sup>®</sup> (edoxaban).

## What is Atrial Fibrillation (AFib)?

AFib is a condition that causes the heart to beat irregularly. This is sometimes called a heart palpitation. The heart's job is to pump blood around the body. It normally does so with a regular squeezing action which we call our heartbeat, and beats in a steady, consistent rhythm.

AFib is the most common type of heartbeat disorder where the heart rate and heart rhythm are irregular. AFib can cause the heart to pump very fast and unevenly. If blood doesn't move properly in the heart it can lead to the formation of blood clots. These clots can travel to the brain, and block the flow of blood. When blood doesn't get to the brain, you can experience a stroke.

AFib interferes with this rhythm, preventing your blood from being pumped around the body as efficiently. Approximately 350,000 Canadians are living with AFib making it the most common heart rhythm abnormality for adults. This website is designed to give you a better understanding of AFib, and the importance of following your doctor's advice.

Want to know if you could be suffering from AFib? [Click here](#) for the leading symptoms

## Types of AFib

The heart has four chambers: two upper ones called the atria, and two lower ones called the ventricles. In AFib, the upper chambers beat too quickly or out of step with the lower chambers. This interferes with your heart's steady beat.

### The different forms of AFib:

#### Paroxysmal AFib

These episodes can last anywhere from a few seconds to several days but usually returns to normal rhythm within 24 hours without medical assistance.

#### Persistent AFib

The AFib may not stop by itself, which means that episodes can last longer than a week. Medication or

cardioversion treatment (a medically administered electrical shock) is used to help the heart return to normal rhythm.

#### **Permanent AFib**

The irregular heart beating cannot be returned to the normal rhythm by medications or controlled electrical shock.

### **How AFib affects the heart's rhythm**

Your heartbeat is controlled by electrical signals that travel across your heart, allowing it to contract and pump. This impulse tells the atria and the ventricles to work together to pump blood through the heart and into the body.

When the heart is beating normally, the impulse from the electrical signal takes a specific route, visiting areas of the heart in an ordered, predictable fashion. However, in AFib, there could be problems with the electrical signals in your heart, causing the upper chambers (atria) to quiver (fibrillate).

This combination can result in a fast, irregular heart rhythm.

## **Possible Causes of AFib**

#### heart illustration

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- High blood pressure
- Abnormal heart structure
- Inflammation or infection of the heart
- Diseases that damage the heart valves
- Congenital heart disease

#### lungs illustration

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- Blood clot in the lung

#### thyroid illustration

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- Overactive thyroid

#### alcohol illustration

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- Excessive use of alcohol

# What is a Stroke?

A stroke occurs when the blood supply to the brain is blocked, or when there's a bleed into the brain. Like all organs, the brain needs oxygen and nutrients to function properly. When a clot forms, it can create a blockage in a blood vessel supplying the brain. This cuts off the blood flow to an area of the brain, damaging cells. This can lead to brain damage, both temporary or permanent, depending how long the blood supply is cut off.

**Signs of a stroke.** Want to know how to recognize a stroke? [Click here](#) for the leading stroke symptoms.

## Types of Stroke

The Heart and Stroke Foundation describes three types of stroke in adults – ischemic, hemorrhagic and transient ischemic attacks (TIA).

### Ischemic Strokes

Ischemic strokes are caused by an interruption of the blood flow to the brain due to a blood clot. These strokes usually involve the buildup of plaque (fatty materials, calcium and scar tissue) in the arteries that supply blood to the brain, narrowing them and interfering with or blocking the blood flow. This narrowing is called atherosclerosis.

Ischemic strokes are the most common type of stroke, accounting for approximately 80 per cent. It is further divided into two kinds of ischemic stroke.

- Thrombotic – caused by a blood clot in an artery leading directly to the brain
- Embolic – caused by a blood clot that travels to the brain after forming somewhere else in the body

### Hemorrhagic Strokes

Hemorrhagic strokes can occur when uncontrolled bleeding in the brain damages brain cells. These are generally caused by one of the following structural problems with the blood vessels:

- Aneurysm – a weakened area in a blood vessel wall that ruptures
- Arteriovenous Malformation (AVM) – a rupture due to a defect in the blood vessels in the brain (usually present at birth) that causes the vessel walls to be weak

### Transient Ischemic Attacks (TIA)

Transient Ischemic Attacks (TIA), often called “mini-strokes”, occur when blood flow to the brain is stopped for a short period of time. This interruption in blood flow may be the result of narrowing of the arteries from a

buildup of plaque (atherosclerosis), or from a clot that may have travelled from another part of the body such as the heart:

- Symptoms are similar to those of a stroke, but tend to go away within a few minutes or hours
- TIAs act as an important warning sign of an impending major stroke

Atrial Fibrillation (AFib) can cause an embolic stroke — when a blood clot forms in the heart and travels to the brain. It is estimated that up to 15 per cent of all strokes are caused by AFib.

Having AFib greatly increases your risk of a stroke, which means following your doctor's advice to reduce your risk of a stroke is crucial.

*\*Other risk factors for stroke include high blood pressure, smoking, high cholesterol levels, unhealthy weight, stress, family history, physical inactivity, age, diabetes, excessive alcohol consumption, gender, ethnicity, history of stroke or TIA.*

Your doctor can help you reduce your risk of stroke, find out more here.

## **Stroke Implications**

Each year, an estimated 32,081 Canadians are hospitalized for stroke care and in 2012, over 13,000 died as a result of a stroke. More than 400,000 Canadians are living with long-term stroke disability. It is important to remember that stroke is one of the most preventable life-threatening medical conditions.

Approximately 10 per cent of those who have a stroke recover almost completely, while about 25 per cent of stroke survivors will recover with minor impairments or disabilities. However, many stroke survivors will be left with long-term problems. Forty per cent of those who suffer from a stroke are left with moderate to severe impairment, in some cases requiring long-term care. A stroke can also affect bodily functions, thought processes, your ability to learn and communicate, as well as impact emotions.

## **AFib Strokes**

If you have atrial fibrillation (AFib) and suffer a stroke, there is a greater chance of it being more severe. One study found that strokes caused by AFib were linked to a 70 per cent increase in death or significant neurological disability.

Beyond the impact on you, a stroke will affect your partner and other family members. As strokes can occur without warning, it can be very difficult for families to deal with the shock of seeing a once capable person suddenly disabled and need help with simple activities. Increasing pressure is placed on caregivers and families to provide ongoing support to stroke survivors, which can include a lot of care and help with everyday living.

Having a stroke is a serious matter. Therefore, it is important to do all you can to reduce your risk. The best thing is to follow your doctor's advice.

## **Time to take positive action**

These facts show how important it is to your health to do all you can to lower your risk of stroke if you have been diagnosed with AFib. The best thing is to follow your doctor's advice.

# Link Between AFib and Stroke

If you have atrial fibrillation (AFib), your risk of stroke is considered three to five times higher than those without AFib. Fortunately – with your physician’s help and by taking some practical steps – you can take action to lower this risk.

The fluttering heartbeat caused by AFib means the blood moves irregularly in the chambers of the heart. Sometimes it can pool within the heart, which may result in a blood clot.

A clot formed this way can travel in the blood stream to the brain where it can cause a stroke. Your doctor may prescribe a blood thinner medication to help prevent clots from forming, causing a stroke. There are blood thinner medications available that can reduce your risk of stroke, including Coumadin<sup>®</sup> (warfarin), Pradaxa<sup>®</sup> (dabigatran etexilate), Xarelto<sup>®</sup> (rivaroxaban), Eliquis<sup>®</sup> (apixaban), and Lixiana<sup>®</sup> (edoxaban).

diagram of stroke-related organs

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## How atrial fibrillation leads to stroke

1. Atrial fibrillation in the heart
2. Clot forms in the heart
3. Clot enters the blood stream and travels towards the brain
4. Clot blocks blood flow to part of the brain
5. Brain is starved of oxygen leading to stroke and brain damage

[Click here to learn more.](#)