

Introduction to Atrial Fibrillation (AFib)

Learn About:

1. What is atrial fibrillation?
2. How will I feel?
3. Who gets AFib?
4. Risk of stroke
5. AFib treatment
6. How to live well with AFib

1. What is atrial fibrillation?

Atrial fibrillation is pronounced A•tre•al fi•bril•LA•shun, also known as AFib.

AFib is the most common type of heartbeat (otherwise known as heart rhythm) disorder. It makes your heartbeat irregular or uneven. When you have an episode of AFib, your heartbeat is often faster than usual. AFib can come and go, or it can also last for a long time. This uneven heartbeat can cause blood to pool in the heart and form a clot.

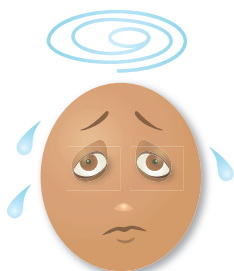
2. How will I feel?

Many people do not even realize that they have AFib because they do not feel any symptoms. In fact, AFib rarely requires urgent medical care. Most people with AFib continue to live healthy, active lives.

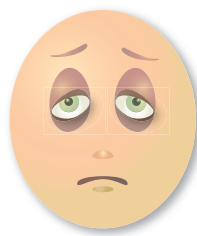
Some people may have symptoms. **The most common feeling is your heart jumping or racing (often called palpitations).** This is also described as a fluttering in your chest or skipped beats. These sensations are caused by a rapid or irregular heartbeat.

These are the other common symptoms you may feel. They spell out **A-F-I-B**:

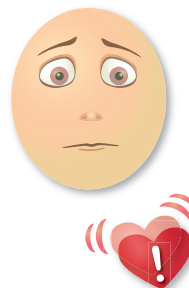
Anxious
(feeling shaky, sweaty or dizzy)



Fatigue
(feeling tired, weak or faint)



Irregular heart beat
(heart racing or palpitations)



Breathing problems
(feeling short of breath)



3. Who gets AFib?

AFib is more common in people who have:

- high blood pressure
- had a previous heart attack
- an abnormal heart valve
- heart failure
- an overactive thyroid gland
- certain lung problems

4. Risk of stroke

AFib increases your risk of stroke since it can cause blood clots to form. The uneven heartbeat causes blood to pool in the heart. If these blood clots break loose they can travel to the brain and cause a stroke. Fortunately, strokes are fairly rare. It is important for your health care provider to assess your personal risk of stroke. The good news is that medicines can lower the risk of stroke.

5. AFib treatment

There are a variety of medicines and treatments for AFib:

- Medicines can be given to slow your heart rate (rate control) or help your heart return to a normal rhythm (rhythm control).
- Medicines can also be given to prevent blood clots from forming and reduce the risk of a stroke.
- Electrical cardioversion is a brief, carefully monitored electrical 'shock' to the heart that can also help return your heart to a normal rhythm.

6. How to live well with AFib

- Take your medication exactly as directed.
- If you have high blood pressure, ensure that it is under good control.
- If you feel sleepy during the day, fall asleep when you don't intend to and snore loudly and frequently, get checked for sleep apnea. If sleep apnea is detected and treated, this could improve your quality of life.
- Exercise for 30 minutes per day.
- Learn more about AFib and it's management — knowledge is power. Please refer to our other educational materials and online resources at www.afbinnovationprogram.com

Atrial Fibrillation (AFib) Treatment Options



Learn About:

1. Why treatment is important
2. Medicine options to reduce your symptoms
3. Non-medicine treatment options
4. Ways to decrease your risk of stroke

1. Why treatment is important

Treatment is important because it:

- Reduces your risk of stroke
- Improves your quality of life by decreasing your symptoms
- Reduces your risk of going to the hospital
- Reduces complications of atrial fibrillation

Most importantly, AFib can be managed using medicines or other treatments. AFib treatments vary from person to person. Your doctor will discuss the benefits and possible side effects with you before making a decision. It is not unusual to try different options until the best option is found.

2. Medicine options to reduce your symptoms

There are two types of medicines to treat AFib symptoms: **rate control medicine** and **rhythm control medicine**. Each of these types of medicines can have different side effects. Not all of them may be right for you. Your doctor will discuss the benefits and risks of each of these medicines with you. Continue to take your medicines even if your symptoms improve or go away. Your medicines reduce your risk of complications related to AFib. Do not stop taking your medicines without talking to your doctor first.

Medicine options to reduce your symptoms - continued

a) Rate control medicines

These slow your heart rate but do not prevent AFib from occurring. Common types of rate control medicines include:

- Beta-blockers: (Atenolol, Bisoprolol, Metoprolol, Propranolol)
- Calcium channel blockers: (Diltiazem, Verapamil)
- Digoxin

b) Rhythm control medicines

These help your heart stay in a normal rhythm or prevent AFib from occurring. Common types of rhythm control medicines include:

- Amiodarone
- Dronedarone
- Flecainide
- Propafenone
- Sotalol

3. Non-medicine treatment options

Electrical cardioversion

Electrical cardioversion is a brief, carefully monitored electrical 'shock' to your heart to put it back into a normal rhythm. It is a simple and safe treatment but it does not prevent future episodes of AFib. A machine called a defibrillator will apply a 'shock' to your heart by using two sticky pads that are put on your chest and back. You will get medicines during the procedure to make you sleep and feel comfortable.

Catheter ablation

Catheter ablation is a surgical procedure to try to prevent future episodes of AFib. It is fairly effective, but because it is an invasive procedure (surgery), it has risks.

Catheter ablation is suitable for some people with AFib, but not everyone. Discuss the details with your family doctor and cardiologist to find out if this procedure is suitable for you.

4. Medicines to decrease your risk of stroke

There are two types of medicines that decrease your risk of stroke: **antiplatelets** (an•ti•plate•lets) and **anticoagulants** (an•ti•co•ag•u•lants). These are sometimes called 'blood thinners'. They decrease your risk of stroke by helping prevent blood clots from forming. However, these medicines may also increase your risk of bleeding. Most patients with AFib should be on one of these medicines. The medicine that is best for you will depend on your risk of stroke.

Medicines to decrease your risk of stroke - continued

Antiplatelets

Antiplatelets are generally used for patients with a low risk of stroke. Common types of antiplatelets include:

- Aspirin® (also called ASA, acetylsalicylic acid)
- Clopidogrel (also called Plavix®)

Do not combine antiplatelets with another blood thinner unless prescribed by your doctor.

Not all of these medicines may be right for you. Your doctor will discuss the benefits and risks of each of these medicines with you.

Anticoagulants

Anticoagulants are generally used for patients with a higher risk of stroke. Common types of anticoagulants include:

- Warfarin (also called Coumadin®)
- Dabigatran (also called Pradaxa®)
- Rivaroxaban (also called Xarelto®)
- Apixaban (also called Eliquis®)



Important information about your stroke prevention medicines

- Talk to your doctor or health care provider about your options.
- All of these medicines can increase the risk of bleeding. Signs of bleeding can include: nose bleeds, coughing blood, black stool, blood in urine, vaginal bleeding, etc.
- Make sure your health care provider knows all of the medicines you are taking, including non-prescription/over-the-counter medicines and natural supplements. Before taking any **new** medicines, speak with your health care provider.
- Take all of your medicines exactly as prescribed.
- More information about your medicines will be available from your pharmacist.

Atrial Fibrillation - How to Decrease Your Risk of Stroke

Learn About:

1. How is atrial fibrillation (AFib) related to a stroke?
2. What are the signs and symptoms of a stroke?
3. What to do if you have stroke symptoms
4. Ways to decrease your risk of a stroke

1. How is atrial fibrillation (AFib) related to stroke?

AFib is an uneven heart beat that can cause blood clots to form in the heart. If a blood clot breaks loose it can travel to your brain and cause a stroke. People with AFib are at higher risk for having a stroke than people who do not have AFib. The risk of stroke in people with AFib increases over time. For most people with AFib, the chance of having a stroke is 5 in 100 per year. This means if 100 people have AFib, 5 are likely to have a stroke every year. With proper treatment, the risk of stroke is lowered to about 1 in 100 per year.

Some people have a **Transient Ischemic Attack (TIA)** before they have a stroke. A TIA (also called a 'mini-stroke') is a brief lack of blood flow to the brain. A TIA is an important warning sign that you are at higher risk for a stroke. Symptoms of a TIA are the same as a stroke, but do not last very long (usually only lasting a few minutes or hours).

2. What are the signs and symptoms of a stroke?

A stroke can be treated. That is why it is important to know and respond to the warning signs:

Weakness: Sudden loss of strength or sudden numbness in your face, arm or leg, even for a short time.



Trouble speaking: Sudden difficulty speaking or understanding, or sudden confusion, even for a short time.



Vision problems: Sudden trouble with vision, blurred or double vision, even for a short time.



Headache: Sudden severe and unusual headache.



Dizziness: Sudden loss of balance. Dizziness is more serious with any of the other signs and symptoms.



3. What to do if you have symptoms of a stroke

If you have stroke or TIA symptoms **call 9-1-1 right away.**

If you experience a stroke, it is important to receive treatment right away. Some types of strokes can be treated with medicines that cause blood clots to dissolve, otherwise known as 'clot-busting drugs' (Alteplase or tPA). These medicines are given in the emergency department. They must be given right after someone has a stroke (within the first 3 hours) to work.

4. Ways to decrease your risk of a stroke

Taking the right medicine can decrease your risk of a stroke. Each medicine does this in a different way. There are two main types of medicines that decrease your risk of stroke: **antiplatelets** and **anticoagulants**. These are sometimes called 'blood thinners'. They decrease your risk of stroke by helping prevent blood clots from forming. However, this may also increase your risk of bleeding. Most patients with AFib should be on one of these medicines. The medicine that is best for you will depend on your risk of stroke.

Antiplatelets

Antiplatelets are generally used for patients with a low risk of stroke. Platelets are very small structures in your blood that clump together during blood clotting. By preventing this clumping, antiplatelet medicines reduce the chance of a blood clot forming and causing a stroke.

Common types of antiplatelets include:

- Aspirin® (also called ASA, acetylsalicylic acid)
- Clopidogrel (also called Plavix®)

Since these medicines prevent blood clots from forming, their main side effect is bleeding. You may notice a little bit of gum bleeding when you brush your teeth, or that you bleed a bit longer when you cut yourself, but you are still able to stop this bleeding. This is expected. If you notice UNUSUAL bleeding, such as blood in your urine or bloody or black, tarry stools, etc., it is important to contact your doctor right away. Call your doctor immediately if you have a serious fall or hit your head.

On the rare occasion, clopidogrel can also cause a rash, and some people complain of diarrhea right after they start taking clopidogrel which usually goes away on its own.

It is important to not combine antiplatelets with another blood thinner unless prescribed by your doctor.

Ways to decrease your risk of a stroke - continued

Anticoagulants

Anticoagulants are generally used for patients with a higher risk of stroke. They work by blocking the substances in your body that are responsible for blood clotting, called 'clotting factors'.

Common types of anticoagulants include:

- Warfarin (also called Coumadin®)
- Dabigatran (also called Pradaxa®)
- Rivaroxaban (also called Xarelto®)
- Apixaban (also called Eliquis®)

Each of these anticoagulants can have different side effects. Not all may be right for you. Your health care providers will discuss the benefits and risks of each of these medicines with you. Please see the following information sheets for more information about these medicines.

Information for people who are taking warfarin (Coumadin®)

Why am I taking warfarin?

Warfarin helps to reduce the risk of having a stroke by preventing blood clots from forming in your body. Preventing blood clots can make bleeding more likely. It is important to have blood tests to measure how quickly your blood clots. This blood test is called an 'INR' (**International Normalized Ratio**). The INR result is reported as a number. You will need regular INR tests, usually about every 1-3 weeks.

What is the right dose for me?

The goal INR is 2-3 for most people who take warfarin to prevent a stroke. When your INR is in this range, there is no need for a change in your dose. If your INR is less than 2, this means that you are not taking enough warfarin and your dose likely needs to be increased. If your INR is more than 3, this means that you might be taking too much warfarin and your dose likely needs to be decreased. Your doctor (or a member of his or her team) will adjust your dose. Ask questions and ensure you know your INR. It is useful to keep track of your INRs and warfarin doses on a calendar.

What are the side effects of warfarin?

The main side effect of warfarin is bleeding. You may notice a little bit of gum bleeding when you brush your teeth, or that you bleed a bit longer when you cut yourself but you are still able to stop the bleeding. This is expected. If you notice UNUSUAL bleeding, such as a nosebleed that won't stop with gentle pressure, blood in your urine, or bloody or black, tarry stools, etc., it is important to contact your doctor right away. Call your doctor immediately if you have a serious fall or hit your head.

What else do I need to know?

- Take your warfarin exactly as directed. Do not adjust your own dose or stop taking it without discussing it with your health care provider first.
- **Speak to your pharmacist before taking any new medicines, including over-the-counter medicines and natural supplements, as many medicines affect the way warfarin works.** Most people should not be taking warfarin with aspirin or other anti-inflammatory pain medications (such as naproxen, ibuprofen, etc). Speak to your healthcare provider if you are taking these at the same time as warfarin.
- Eat a well-balanced diet. Do not make any drastic changes to your diet without discussing them with your health care provider first.
- Be sure to tell all of your doctors, your dentist, pharmacist and all other health care providers that you are taking warfarin. Consider wearing a MedicAlert bracelet or carrying a wallet card that tells people that you are taking warfarin.

Information for people who are taking dabigatran (Pradaxa®)

Why am I taking dabigatran?

Dabigatran helps to reduce the risk of having a stroke by preventing blood clots from forming. It does not require blood tests to measure the clotting activity in your body.

What is the right dose for me?

The best dose for you will be determined by your doctor. It will depend on your age, whether you have had problems with bleeding in the past, what other medicines you are taking and whether you have any problems with your kidneys. Dabigatran is taken twice daily to prevent a stroke.

What is the main side effect of dabigatran?

The main side effect of dabigatran is bleeding. You may notice a little bit of gum bleeding when you brush your teeth, or that you bleed longer when you cut yourself, but you are still able to stop the bleeding. This is expected. If you notice UNUSUAL bleeding, such as a nosebleed that won't stop with gentle pressure, blood in your urine, or bloody or black, tarry stools, etc., it is important to contact your doctor right away. Call your doctor immediately if you have a serious fall or hit your head.

What else do I need to know?

- Take your dabigatran exactly as directed by your health care provider. Do not stop taking it without discussing it with your health care provider first.
- **Speak to your pharmacist before taking any new medicines, including over-the-counter medicines and natural supplements, as many medicines affect the way dabigatran works and may increase your risk of bleeding or having a stroke.** Most people should not be taking dabigatran with aspirin or other anti-inflammatory pain medications (such as naproxen, ibuprofen, etc). Speak to your healthcare provider if you are taking these at the same time as dabigatran.
- It is very important that you swallow the capsule(s) whole. Do not chew or open the capsule(s). Ensure that you store the capsules in their original container.
- Dabigatran may also cause heartburn. If you are also taking an antacid, it should be separated from dabigatran by at least two hours. Do not take them together.
- If you forget to take a dose of dabigatran, take it as soon as you remember. However, if it is less than 6 hours before your next dose, do not take the missed dose. Simply take your next dose when you are supposed to, and do not take a double dose to make up for the missed dose.
- Be sure to tell all of your doctors, your dentist, pharmacist and all other health care providers that you are taking dabigatran. Consider wearing a MedicAlert bracelet or carrying a wallet card that tells people that you are taking dabigatran.

Information for people who are taking rivaroxaban (Xarelto®)

Why am I taking rivaroxaban?

Rivaroxaban helps to reduce your risk of having a stroke by preventing blood clots from forming in your body. It does not require blood tests to measure your body's clotting activity.

What is the right dose for me?

There are two doses of rivaroxaban that are recommended for preventing a stroke in people with AFib. The best dose for you will be determined by your doctor. It will depend on things like whether you have had problems with bleeding in the past, what other medicines you are taking, and whether you have any problems with your kidneys. Rivaroxaban is taken once daily to prevent a stroke.

What is the main side effect of rivaroxaban?

Since it is used to prevent blood from clotting, the main side effect of rivaroxaban is bleeding. You may notice that you have a little bit of gum bleeding when you brush your teeth, or that you bleed a bit longer when you cut yourself, but you are still able to stop the bleeding. This is expected. If you notice UNUSUAL bleeding, such as a nosebleed that won't stop with gentle pressure, blood in your urine, or bloody or black, tarry stools, etc., it is important to contact your doctor right away. Call your doctor immediately if you have a serious fall or hit your head.

What else do I need to know?

- Take your rivaroxaban exactly as directed by your health care provider. Do not stop taking it without discussing it with your health care provider first.
- **Speak to your pharmacist before taking any new medicines, including over-the-counter medicines and natural supplements, as many medicines affect the way rivaroxaban works and may increase your risk of bleeding or having a stroke.** Most people should not be taking rivaroxaban with aspirin or other anti-inflammatory pain medications (such as naproxen, ibuprofen, etc). Speak to your healthcare provider if you are taking these at the same time as rivaroxaban.
- Rivaroxaban in a dose of 15mg or 20mg daily should be taken with food.
- If you miss a dose, take it as soon as possible and continue with your regular schedule. If it is almost time for your next dose, skip the missed dose and continue with your regular schedule. Do not take a double dose to make up for the missed one.
- Be sure to tell all of your doctors, your dentist, pharmacist, and all other health care providers that you are taking rivaroxaban. Consider wearing a MedicAlert bracelet or carrying a wallet card that tells people that you are taking rivaroxaban.

Information for people who are taking apixaban (Eliquis®)

Why am I taking apixaban?

Apixaban helps to reduce the risk of having a stroke by preventing blood clots from forming. It does not require blood tests to measure the clotting activity in your body.

What is the right dose for me?

The best dose for you will be determined by your doctor. It will depend on your age and weight, whether you have had problems with bleeding in the past, what other medicines you are taking and whether you have any problems with your kidneys. Apixaban is taken twice daily to prevent a stroke.

What is the main side effect of apixaban?

The main side effect of apixaban is bleeding. You may notice a little bit of gum bleeding when you brush your teeth, or that you bleed longer when you cut yourself, but you are still able to stop the bleeding. This is expected. If you notice UNUSUAL bleeding, such as a nosebleed that won't stop with gentle pressure, blood in your urine, or bloody or black, tarry stools, etc., it is important to contact your doctor right away. Call your doctor immediately if you have a serious fall or hit your head.

What else do I need to know?

- Take your apixaban exactly as directed by your health care provider. Do not stop taking it without discussing it with your health care provider first.
- **Speak to your pharmacist before taking any new medicines, including over-the-counter medicines and natural supplements, as many medicines affect the way apixaban works and may increase your risk of bleeding or having a stroke.** Most people should not be taking apixaban with aspirin or other anti-inflammatory pain medications (such as naproxen, ibuprofen, etc). Speak to your healthcare provider if you are taking these at the same time as apixaban.
- If you forget to take a dose of apixaban, take it as soon as you remember. However, if it is less than 6 hours before your next dose, do not take the missed dose. Simply take your next dose when you are supposed to, and do not take a double dose to make up for the missed dose.
- Be sure to tell all of your doctors, your dentist, pharmacist and all other health care providers that you are taking apixaban. Consider wearing a MedicAlert bracelet or carrying a wallet card that tells people that you are taking apixaban.

What do I do if I think I am having an Atrial Fibrillation (AFib) episode?



This is what Dr. Paul Dorian, cardiologist and expert in the management of atrial fibrillation, tells his patients to do if they think that they are having an AFib episode:

Take a few deep breaths – the majority of these episodes settle down on their own. Atrial fibrillation is hardly ever dangerous.

In most cases, you do not have to go to the hospital. Here is what you can do:

- Ensure you have taken your medicines
- If you have instructions for additional medicines, follow them

Otherwise, sit down, rest and wait 12 or more hours for your symptoms to settle. If you still do not feel better, call your family doctor who may want to adjust your medicines.

If you still feel the same way 24 hours later, and you have not seen or spoken to a health care provider, it is reasonable to go to the hospital.

Seek urgent medical care if you feel extremely unwell. For example, if you:

- Cannot stand up or walk across the room
- Feel very short of breath even when sitting still
- Have severe chest pain
- If you have a fainting spell

Just remember, AFib is not usually an emergency. Discuss with your doctor what you should do when you have an AFib episode.

Atrial Fibrillation - What you need to know about cardioversion



What is a cardioversion and why might I need it?

A cardioversion is a procedure to restore your heart beat back to its normal rhythm. If your medicines are not working and you have severe symptoms, you may need a cardioversion. A cardioversion may be planned or it may be done on an urgent basis. To see if a cardioversion is right for you, speak to your family doctor or cardiologist about the risks and benefits. A cardioversion may not be right for you if you have other heart conditions or if there is a concern that there may be a blood clot in your heart.

There are two types of cardioversion. Both types of cardioversion do the same thing and your doctor will determine which type is best for you.

The two types of cardioversion are:

Electrical cardioversion

Electrical cardioversion is a brief, carefully monitored electrical 'shock' given to the heart to change an abnormal heart rhythm back to a normal rhythm. This shock will be applied by a machine called a defibrillator, using two sticky pads that are put on your chest and back. You will get medicines during the procedure to make you comfortable.

Chemical (medicine) cardioversion

Medicines are given, usually by injection through a vein but occasionally by mouth, to change an abnormal heart rhythm back to a normal rhythm.