Swedish AFib Clinic

Part of the Swedish Comprehensive AFib Network

A patient-centered, comprehensive approach to atrial fibrillation care
# Table of Contents

Welcome to the Swedish AFib Clinic.......................................................................................................................... page 3
Atrial Fibrillation Overview........................................................................................................................................ page 4
Risk Factors.............................................................................................................................................................................. page 5
Treatments and Procedures........................................................................................................................................ pages 6-7
Terms to Know.............................................................................................................................................................. pages 7-8
Notes .......................................................................................................................................................................................... page 9
Disclosures............................................................................................................................................................................ pages 10-11
Welcome to the Swedish AFib Clinic

You or someone you know has been diagnosed with atrial fibrillation. This can be overwhelming and confusing. The Afib Clinic at the Swedish Heart & Vascular Institute was designed to guide and navigate you through treating this heart condition.

“Our goal is to provide prompt, safe and effective care of atrial fibrillation. This involves a team-based comprehensive state-of-the-art evaluation with an emphasis on patient engagement and improving your quality of life and wellness.”

— Dr. David Lam, Dr. Adam Zivin, Dr. Chris McGann, Jenna Behrman, PA-C, and Jen Farrell, RN

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What is atrial fibrillation (AFib)?

Atrial fibrillation or “AFib” is the most common arrhythmia (irregular heart rhythm). It is an irregular heartbeat that starts from the top left chamber of the heart (called the left atrium). It can cause your heart to beat too quickly, too slowly or irregularly. It is important to treat AFib as it can lead to blood clots, stroke, heart failure or other heart-related complications.

AFib is diagnosed by doing an electrocardiogram (ECG or EKG) which is a quick tracing of your heart rhythm.

Below is an electrocardiogram showing a normal heart rhythm (also known as normal sinus rhythm). Every time the heart contracts, this creates an electrical signal that shows up as a spike. In a normal rhythm, you see how the spikes are evenly spaced out and regular.

Now let’s take a look at atrial fibrillation (AFib) below. Notice how the timing is uneven and occurs randomly. This is an irregular heartbeat.

AFib is a common condition and is often seen in older people. It is estimated that between 2.7 million and 6.1 million people in the United States have AFib. As the U.S. population ages, this number is expected to increase.

What are the symptoms of AFib?

Some patients do not feel AFib at all. Others can feel symptoms such as:

- A feeling of thumping, pounding or fluttering in the chest
- Irregular heart beat
- Shortness of breath
- Chest discomfort
- Fatigue
- Dizziness or feeling lightheaded

You were diagnosed with atrial fibrillation. Now what?

You will be seen in the Swedish AFib Clinic at the Swedish Heart & Vascular Institute to discuss an individualized evaluation and treatment plan with a cardiologist or cardiology nurse practitioner.

Your evaluation may include the following:

- Comprehensive review of your medical history, family history, medication list
- Assessment of your risk factors for AFib
- Assessment of your stroke risk
- Screening for other conditions associated with AFib
- Physical exam
- Electrocardiogram
- Blood tests
- Echocardiogram (an ultrasound of your heart)
- Wearable heart monitor to track your heart rhythm at home

If your body mass index (BMI) is over 35, we will recommend and facilitate a consultation with the Swedish Weight Loss Services program; research data shows that maintaining a healthy weight improves AFib treatment outcomes. If you have risk factors for sleep apnea (as determined by screening tools), you will be referred to Sleep Medicine to get tested for sleep apnea.

Atrial fibrillation is related to many other health conditions such as high blood pressure, obesity, diabetes, sleep apnea, thyroid issues, excessive alcohol or stimulant use, and heart valve problems. Your doctor may need to order tests to see if you have any of these health conditions that can complicate atrial fibrillation.

What are the modifiable risk factors that can lead to AFib?

AFib is associated with many common health conditions that can either lead to AFib or make AFib more challenging to treat. Many of these health conditions also contribute to an increased risk of having a stroke from atrial fibrillation. The good news is that if we can bring these health conditions under control, we can lower your risk of having complications.
Hypertension (high blood pressure)
If your blood pressure is too high, it can put stress on your heart, increase your risk of having a stroke, and contribute to developing atrial fibrillation. Certain medications can be more helpful for controlling your blood pressure when you have atrial fibrillation.

Obesity (Body Mass Index over 30)
Obesity may worsen AFib and decrease the effectiveness of treatments (medication or ablation). With a loss of 10 percent of your body weight, you may have less episodes of AFib. Weight loss can also improve hypertension, diabetes and sleep apnea.

Sleep apnea
Sleep apnea is a condition where there are pauses between breaths during sleep. This can block air flow with breathing and lead to snoring, poor sleep and daytime fatigue. Sleep apnea is a known cause of atrial fibrillation. If you have undiagnosed and untreated sleep apnea, it can worsen your AFib, as well as make it harder to treat. Sleep apnea can also cause or worsen high blood pressure. Sleep apnea can become worse with excess weight. Sleep apnea risk factors include male gender, age over 50, Body Mass Index over 35 and neck circumference over 40 cm.

Diabetes
Increased blood sugar can increase stress on the body and worsen atrial fibrillation. It is important to screen for and treat diabetes if you have atrial fibrillation.

Excessive alcohol and recreational drugs
Excessive alcohol use and recreational drug use can bring on, or worsen, episodes of atrial fibrillation. The goal is to reduce alcohol use and refrain from using recreational drugs.

Smoking
Smoking increases the risk of AFib and makes it harder to treat. The goal is complete cessation. This includes nicotine replacements as well.

What is my stroke risk from Atrial Fibrillation (AFib)?
When you have AFib, you may have a higher risk of stroke. When the heart is beating irregularly during AFib, blood may move more slowly through the heart chambers, which can lead to blood clots in the upper chambers (atria). If a blood clot is formed in the left atrium, in particular the left atrial appendage, it can potentially move out into the general circulation and up to the brain, causing a stroke.

The main way that the risk of stroke is reduced is by taking a medication to "thin the blood" and prevent a clot from forming in the heart.

There are many factors that can increase your risk of forming a clot and having a stroke. Some of these factors can increase your stroke risk even if they are well controlled at the time of your Afib diagnosis. Our team will evaluate your stroke risk by calculating the CHA₂DS₂-VASc score.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Congestive Heart Failure</td>
<td>1 point</td>
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<tr>
<td>Hypertension</td>
<td>1 point</td>
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<tr>
<td>Age 65 and older</td>
<td>1 point</td>
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<tr>
<td>Age 75 and older</td>
<td>1 point</td>
</tr>
<tr>
<td>Diabetes</td>
<td>1 point</td>
</tr>
<tr>
<td>Previous stroke or TIA</td>
<td>2 points</td>
</tr>
<tr>
<td>Female</td>
<td>1 point</td>
</tr>
<tr>
<td>Previous heart attack or peripheral vascular disease or plaque in aorta</td>
<td>1 point</td>
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</tbody>
</table>

Depending on your score, your cardiologist may recommend a blood thinner medication to reduce your risk of stroke.
**What are blood thinners or anticoagulants?**

There are prescription medications available in the U.S. that lower stroke risk. These are called Oral Anticoagulation (OAC) medications. They are often called “blood thinners.” This group of medications includes:

- Warfarin (Coumadin®)
- Dabigatran (Pradaxa®)
- Rivaroxaban (Xarelto®)
- Apixaban (Eliquis®)
- Edoxaban (Savaysa®)

**How do we treat AFib?**

There are different types of AFib. The types of medications and treatments can depend on what type of AFib you have and your symptoms.

**Paroxysmal:** AFib that comes and goes on its own

**Persistent:** AFib that lasts longer than seven days and requires electrical or chemical cardioversion to return to normal

**Permanent:** AFib that cannot be corrected

**Medications**

**To lower the risk of stroke**

Patients are sometimes prescribed a medication to thin the blood (an anticoagulant) to prevent a clot from forming when the heart beat is irregular.

There are also devices that can be implanted during a procedure to block the area of your heart where clots are formed, so they can’t enter into your blood stream and cause a stroke.

Available procedures to reduce stroke risk without taking blood thinners include:

- Transvenously placed left atrial appendage occlusion device; for example, Watchman
- Surgically placed clip (Atriclip)
- Surgical ligation and closure

**To control the speed of your heart (rate control)**

There are many types of medication that can prevent your heart from beating too fast when the rhythm is irregular. (A normal heart rate is between 60-100 while at rest.)

**To control the rhythm of your heart (rhythm control)**

Antiarrhythmics are medications that help your heart stay in a “normal” steady rhythm.
Procedures

Cardioversion
This is a short outpatient procedure. You are given medication to put you to sleep, then electrical current is used to reset your heart into a normal rhythm. You go home on the same day.

Catheter ablation
A catheter, or probe, using different forms of energy (cold or hot) is used to create an area of scar tissue on the inside of your heart where abnormal heart rhythms start.

Surgical ablation
AFib ablation can also be performed surgically, either through a minimally invasive thoracoscopic approach, or at the time of other cardiac surgery such as valve surgery or coronary bypass surgery.

What are ablations?
Catheter based and surgical techniques are available to create targeted areas of scar within the heart to block the pathways responsible for rapid heart rhythms. AFib is one of the arrhythmias that can be treated with ablation, though it is by no means the only one. One of the major triggers for AFib are the signals coming from the pulmonary veins that drain blood from the lungs back into the heart. “Pulmonary vein isolation” is one component of catheter ablation that involves ablating those specific pulmonary vein electrical connections. Depending on the patient and their specific arrhythmia history, additional ablation in other parts of the atria (upper chambers of the heart) may also be required to reduce their risk of recurrent arrhythmias.

Ablation is not effective or appropriate for every patient but is one of the approaches that may be discussed with you.

Terms to know

Atrial fibrillation: an irregular electrical pattern in the upper chambers of the heart (the right and left atrium). This is further subdivided as follows:

- **Paroxysmal:** AFib that comes and goes on its own
- **Persistent:** AFib that lasts longer than seven days and requires electrical or chemical cardioversion to return to normal
- **Permanent:** AFib that cannot be corrected

Atrial flutter: atrial fibrillation’s sibling. A more organized, but still abnormal, electrical pattern in the atria. This can be either “typical” or “atypical” flutter. The distinction is important for ablation but not something you need to get worked up about.

Ablation: Use of radiofrequency energy or freezing (cryoablation) to create selective areas of scar tissue for treatment of a number of different types of arrhythmias.

Antiarrhythmic medications: Specific medications used to maintain a normal heart rhythm. Examples include amiodarone (Cordarone), dronedarone (Multaq), flecainide (Tambocor), propafenone (Rythmol), sotalol (Betapace), dofetilide (Tikosyn).

Anticoagulant: Often called “blood thinners.” They don’t really thin the blood; they increase the time it takes for blood to clot. Examples include warfarin (coumadin®), dabigatran (Pradaxa®), apixaban (Eliquis®), rivaroxaban (Xarelto®), edoxaban (Savaysa®), enoxaparin (Lovenox®), heparin.

Antiplatelet medications: These medications make the platelets in the blood slippery and less effective. Platelets plug up holes to help stop bleeding in the event of tissue injury. They are not the same as anticoagulants (blood thinners).

Arrhythmia: Any abnormal heart rhythm. There are many types. Atrial fibrillation is one of them.
**Body Mass Index (BMI):** A calculation based on weight and height. BMI (in kg/m\(^2\)) = weight in kg/(height in m)^2.
- <18.5 Underweight
- 18.5-24.9 Normal range
- 24.5-29.9 Overweight
- 30-35 Obese
- ≥ 35 Severe obesity

**Bradycardia:** Slow heart rate. This can be either physiologic (for example, a normal slow heart rate during sleep or in in trained athletes) or pathologic, reflecting an abnormality in the electrical system due to disease or medication, for example.

**Cardioversion:** Using medication or an electric shock to return cardiac rhythm to normal.

**CHA\(_2\)DS\(_2\)-VASc score:** This is a scoring system used to rank the risk of stroke in a person with atrial fibrillation. Score ranges from 0 to 9 based on patient age and gender, and presence of diabetes, hypertension, prior stroke, vascular disease and congestive heart failure. It is very useful but is not perfect and doesn’t take into account things like family history.

**HAS-BLED score:** A scoring system to rank the risk of bleeding. Score ranges from 0 to 9 based on age and history of prior bleeding, kidney and liver function, medications taken, alcohol use, hypertension and prior stroke.

**Heart rate:** How fast the heart is beating. This varies throughout the day but depending on age, activity and many other factors, at any given time is usually between 40 and 180 beats per minute (BPM) for most people. A normal heart rate is generally between 60-100 beats per minute but can vary.

**Heart monitor:** A device for recording the electrical activity of the heart over time. There are various types that can record continuously or intermittently, and for anywhere from minutes to days.

**Left Atrial Appendage (LAA):** Hollow “appendix” that hangs off the left atrium and can be a source of clots that can cause strokes in patients with atrial fibrillation.

**Left atrial appendage occlusion:** An interventional procedure to block off the left atrial appendage as an alternative to anticoagulation. Currently available options include Watchman, Lariat and Atriclip.

**Palpitation(s):** Palpitations are a symptom, that is, a sensation, that the heart is beating. Palpitations do not necessarily mean that the heart rhythm is abnormal. For example, one may feel their heart is pounding or racing when they are scared or nervous, but the rhythm may be completely normal. Typical descriptions include “pounding”, “racing”, “skipping,” etc.

**Pulse rate (beats/minute):** This is a measurement of the heart rate based on feeling the pulsations in an artery (typically at the wrist or neck). It can be taken without any special equipment, but under some circumstances, especially if the rhythm is irregular, may not accurately measure the true “heart rate.” A common way to check pulse rate is to feel the pulse and count how many times it “beats” in 15 seconds and multiply by four for pulse rate in beats/minute.

**Rate control medications:** Medications used to slow the heart rate but not intended to return the heart rhythm to normal. Examples include beta blockers (metoprolol, atenolol, propranolol, etc.), calcium channel blockers (verapamil, diltiazem) and digoxin.

**Sleep apnea:** Condition where patients intermittently stop breathing during sleep. Divided into obstructive (OSA) and central.

**Stroke:** A blood clot or bleeding in the brain that damages brain tissue. The effects may be permanent or temporary.

**Syncope:** The medical term for fainting or “passing out.” This is complete loss of consciousness.

**Tachycardia:** Fast heart rate. As with bradycardia, it can be a normal physiologic response or an abnormal “pathologic” one.

**Transient Ischemic Attack (TIA):** Brief interruption of blood flow to a part of the brain resulting in temporary effects but no permanent damage.
Providence St. Joseph Health and its Affiliates \(^1\) (collectively “PSJH”) comply with applicable Federal civil rights laws and do not discriminate against, exclude or treat differently any individuals accessing any PSJH Program or Activity on any basis prohibited by local, state or federal laws, including but not limited to the basis of race, color, religious creed (including religious dress and grooming practices), national origin (including certain language use restrictions), ancestry, disability (mental and physical including HIV and AIDS), medical condition (including cancer and genetic characteristics), marital status, age, sex (including pregnancy, childbirth, breastfeeding and related medical conditions), gender, gender identity, gender expression and sexual orientation, genetic information (including family medical history), or military/veteran status as those terms are defined under federal and state laws and rules.

In compliance with the Americans with Disabilities Act (ADA), PSJH provides qualified interpreters and other auxiliary aids and services free of charge:

(1) to people with disabilities to communicate effectively with us, such as: (a) Qualified sign language interpreters; and (b) Written information in other formats (large print, audio, accessible electronic formats, other formats); and

(2) to people whose primary language is not English, such as: (a) Qualified interpreters; and (b) Information written in other languages.

If you need any of the above services, please contact the Civil Rights Coordinator below.

If you need Telecommunications Relay Services, please call 1-800-833-6384 or 7-1-1.

If you believe that PSJH has failed to provide these services or discriminated in another way on the basis race, color, religious creed (including religious dress and grooming practices), national origin (including certain language use restrictions), ancestry, disability (mental and physical including HIV and AIDS), medical condition (including cancer and genetic characteristics), marital status, age, sex (including pregnancy, childbirth, breastfeeding and related medical conditions), gender, gender identity, gender expression and sexual orientation, genetic information (including family medical history), or military/veteran status, you can file a grievance with PSJH by contacting the Civil Rights Coordinator for your location listed below:

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<th>State/Service</th>
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<tr>
<td>Washington/Swedish</td>
<td>Office of Compliance &amp; Privacy</td>
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<td>Swedish Health Services</td>
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<td>747 Broadway</td>
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<td>Seattle, WA 98122</td>
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<td>Email: <a href="mailto:Compliance@Swedish.org">Compliance@Swedish.org</a></td>
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You can file a grievance in person or by mail, fax or email. If you need help filing a grievance, the above-noted civil rights coordinator is available to help you.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights electronically through the Office for Civil Rights Complaint Portal, available at https://ocrportal.hhs.gov/ocr/portal/lobby.jsf, or by mail or phone at:

U.S. Department of Health and Human Services
200 Independence Avenue SW,
Room 509F, HHH Building,
Washington, DC 20201
1–800–368–1019, 800–537–7697 (TDD).

Complaint forms are available at:

\(^1\) For purposes of this notice, “Affiliates” is defined as any entity that is wholly owned or controlled by Providence St. Joseph Health (PSJH), Providence Health & Services, St. Joseph Health System, Western HealthConnect, Covenant Health Network, Inc., or is jointly owned or controlled by PSJH or its Affiliates and bears the Providence, Swedish Health Services, Swedish Edmonds, St. Joseph Health, Covenant Health Network, Covenant Health, Kadlec Regional Medical Center, or PacMed Clinics name.
ATTENTION: If you speak another language, assistance services, free of charge, are available to you. Call 888-311-9127 (TTY: 711).