



DECISION AID

Atrial fibrillation:

How can an irregular heart rhythm be treated?

You have been diagnosed with atrial fibrillation. This is a common heart rhythm disorder that causes a fast and irregular heart rate. It may lead to an unpleasant racing heart (palpitations), dizziness or weakness. These kinds of symptoms can be treated in various ways that have different effects on the heart rhythm:

- It is often enough to take medication **to slow the heart rate down**.
- But it can also be a good idea to **get the heart's rhythm back to normal**, either using bursts of electrical energy or medication.

Tablets can be taken over the long term to **keep the heart rate normal afterwards**. But your doctors might also have recommended a procedure called cardiac ablation (sometimes also referred to as catheter ablation) instead of or in addition to medication. It is used to destroy (ablate) specific parts of the heart tissue that are causing the problem.

The aim of this decision aid is to help you choose a suitable treatment together with your doctors.

Please note: Atrial fibrillation can cause blood clots to form in the heart. They may lead to complications like a stroke if they pass through the blood into other parts of the body. That is why doctors often recommend that people with atrial fibrillation take medication to stop the blood from clotting. That lowers the risk of a stroke. These medications do not change the heart's rhythm, though, so they are not covered in this decision aid.

It is important that people with cardiovascular diseases lead a healthy life in addition to the treatment they are having.

THE MAIN TREATMENT OPTIONS:

◀ **Rate control:** Slow down the heart rate using medication

◀ **Rhythm control:**

- Restore normal heart rhythm (cardioversion):
 - Using electricity (electrical cardioversion)
 - Using medication
- Maintain normal heart rhythm over the long term:
 - Using medication
 - Using catheter ablation

*You can read about
the pros and cons of
these treatments on the
next pages.*

PERSONAL DECISION

This decision aid probably won't include all of the information that you need. You will still need to talk to a doctor, but the decision aid can help you. Your treatment decision will depend on various things, including

- which symptoms the treatment is supposed to improve, and how distressing those symptoms are,
- whether it is the first time you've had atrial fibrillation,
- how long you have already had a heart rhythm problem,
- whether the causes of the atrial fibrillation can be treated, such as an overactive thyroid,
- whether you don't tolerate certain medications,
- what has already been done to try to treat the atrial fibrillation,
- whether you have heart failure or other diseases.

IMPORTANT:

Don't let anyone pressure you into a decision! Even if you find the symptoms very distressing, take the time to gather information and make a considered decision.

PROS AND CONS OF RATE AND RHYTHM CONTROL

	Slow down heart rate (rate control)	Restore and maintain normal heart rhythm (rhythm control)
What does the treatment involve?	<p>You take medications over the long term to slow down the heart rate. These are typically beta blockers. If you do not tolerate them, calcium antagonists are one alternative. Cardiac glycosides (digitalis) are sometimes another option.</p> <p>It might be necessary for the medications to be injected intravenously at the beginning of the treatment.</p>	<p>The atrial fibrillation is stopped first to make the heart beat in a normal rhythm again (sinus rhythm). That is called cardioversion. That can be done using electrical impulses (electro cardioversion) or with medication.</p> <p>Doctors try to maintain the heart's normal rhythm following cardioversion, usually with medication or catheter ablation.</p>
Does it help?	<p>Yes. Frequency control is usually enough to relieve symptoms. It is often sufficient to reduce the resting pulse to under 110 beats per minute. If not, the resting pulse can be lowered to under 80 by increasing the dose or combining several medications.</p>	<p>Yes. Rhythm control can even relieve symptoms better than frequency control. But relapses are common, in between 43 to 67 out of 100 treated people depending on the procedure.</p>
	<p>Life expectancy and the prevalence of complications of atrial fibrillation are roughly the same for both treatment options, but there are exceptions: Rhythm control provides better protection from long-term complications to people who have had atrial fibrillation for less than a year, or who also have heart failure.</p>	
What are the possible side effects?	<p>Different side effects are possible depending on the active ingredient. Beta blockers can cause blood pressure to decrease. Beta blockers are not suitable for people with asthma or COPD.</p> <p>Calcium antagonists can lower blood pressure, cause headaches, and are not suitable for people with heart failure. Cardiac glycosides can cause impaired vision and heart rhythm disorders, especially in people with kidney disorders; regular blood tests are also necessary.</p>	<p>A number of procedures are combined for cardioversion and the following maintenance of normal heart rhythm, including anesthetic, catheter procedures, and medication. For more information see the summary of the pros and cons below.</p>

	Slow down heart rate (rate control)	Restore and maintain normal heart rhythm (rhythm control)
Who is the treatment suitable for?	For all people with atrial fibrillation and symptoms who tolerate the listed medications.	For all people with atrial fibrillation and symptoms for whom rate control is not effective enough or who <ul style="list-style-type: none"> • have only recently developed atrial fibrillation for the first time, • have heart failure or whose heart muscle has been damaged by the atrial fibrillation, but who have no other diseases, • are still younger, or • specifically want to have rhythm control.

PROS AND CONS OF CARIOVERSION PROCEDURES

	Elektrokardioversion	Kardioversion mit Medikamenten
What exactly happens?	Under a short, mild anesthetic, an electrical impulse is given via electrodes stuck to the chest that stops the atrial fibrillation. The heart can then beat in its normal rhythm again.	You will be given medication as tablets or as an intravenous injection. You will have to take the medication one or two times. You will remain under medical observation during the procedure. No anesthetic is needed.
How effectively is the normal heart rhythm restored?	Electrical cardioversion restores the heart's normal rhythm in around 90 out of 100 people.	Depending on the medication, 44 to 78 out of 100 people's hearts beat normally again after treatment. But it can take several hours or days for it to take effect.
What are the possible side effects?	The anesthetic can cause things like nausea and circulation problems. In rare cases, minor burns can be caused on the skin where the electrodes were stuck. The heart rate might also be slowed down following electrical cardioversion.	Side effects such as heart rhythm disorders, low blood pressure, circulation problems, impaired vision, skin irritations, and thyroid problems are possible depending on the active ingredient.
Who is this treatment suitable for?	For all people with atrial fibrillation and symptoms that are to be treated with rhythm control, perhaps because frequency control did not help enough. For all people who have developed severe circulation problems due to atrial fibrillation.	For all people with a stable circulation and symptoms that are to be treated with rhythm control, perhaps because frequency control did not help enough.

PROS AND CONS OF OPTIONS FOR MAINTAINING SINUS RHYTHM

	Medication	Cardiac ablation
What exactly happens?	You take a medication (antiarrhythmic agent) as a tablet in the long term.	You have to go to hospital for 1 to 2 days. A small amount of heart tissue is ablated using a catheter under short, mild anesthetic.
How effectively can relapse be prevented?	Around 70 out of 100 treated people develop atrial fibrillation or another heart rhythm disorder such as atrial flutter within three years.	Around 50 out of 100 treated people develop atrial fibrillation or another heart rhythm disorder such as atrial flutter within three years.
What risks and side effects can there be?	<p>Depending on the medication, side effects can include heart rhythm disorders, circulation problems, impaired vision and skin irritation.</p> <p>Overall, around 4 out of 100 treated people experience side effects. They can be life-threatening in 1 out of 100 people.</p>	<p>About 7 out of 100 people experience unwanted effects such as bruising where the catheter was inserted or pain develop after the procedure. About 2 out of 100 people experience life-threatening complications such as heart injuries, stroke, pericardial effusion, or severe bleeding.</p> <p>Fewer than 2 out of 1,000 people die during or shortly after the procedure.</p>
Who is this treatment suitable for?	Anyone whose atrial fibrillation has been treated with rhythm control, for whom catheter ablation was too risky, or who refused that procedure.	<p>Anyone whose atrial fibrillation has been treated with rhythm control.</p> <p>Mainly for people who also have heart failure.</p>

HELP WITH YOUR DECISION

You may still be unsure about which treatment you would prefer. You can write down your thoughts and questions on the following two pages.

Which treatment would I consider?		What do I like about it?	What don't I like about it?
Slow down heart frequency (rate control)	<input type="radio"/>		
Restore sinus rhythm using electro cardioversion	<input type="radio"/>		
Restore sinus rhythm using medication	<input type="radio"/>		
Maintain sinus rhythm using medication	<input type="radio"/>		
Maintain sinus rhythm with catheter ablation	<input type="radio"/>		
Other, less common procedures, recommended by my doctor.	<input type="radio"/>		
No treatment	<input type="radio"/>		

IF YOU STILL AREN'T SURE: WHAT ELSE DO YOU NEED IN ORDER TO MAKE A DECISION?

With all the different pros and cons to consider, it can be hard to choose a treatment. Lots of options are still possible even if you have first chosen a different treatment. If that doesn't help, you can try one of the other options.

If you need more help:

- You will find links to further information on the next page.
- You can talk to your doctor again.
- You can also talk to a different doctor. You will find information about this option on the next page, too.
- You can talk about it with your friends and family.
- You can contact a patient information center or a support group.



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You will find in-depth information about the following topics on the internet:

- Atrial fibrillation:
www.informedhealth.org/atrial-fibrillation.html
- Second medical opinion
www.informedhealth.org/SecondOpinion
- Tips for a healthy lifestyle:
www.informedhealth.org/what-can-you-do-for-your-heart-health.html

Preparing for the doctor's appointment

Do you still have any questions? What are you most concerned about? Write down any questions or thoughts you may have, and take this decision aid with you to the appointment. You can ask the doctor about anything you would like to know or discuss anything you are worried about.

You will find a list of questions – and can choose those that are most important to you – here:

- www.informedhealth.org/questions

Publishing details

This decision aid was developed by the Institute for Quality and Efficiency in Health Care (IQWiG, Germany). You will find information about our work and the sources used here:

- www.informedhealth.org/our-approach

Last updated: 09/2022