## **Medtronic**

DiamondTemp<sup>™</sup> ablation

Restoring life's rhythm



## About your AFib

Atrial fibrillation (AFib) is an irregular heart rhythm that affects the upper chambers (atria) of the heart. This arrhythmia prevents blood from being pumped efficiently to the rest of your body.

AFib may impact your ability to perform daily activities, cause you to feel tired, and impact your overall quality of life. If left untreated, it may increase the risk of heart failure, stroke, and death. In fact, AFib increases the likelihood of having a stroke by five times. Even without symptoms, AFib can be a serious medical condition.

It is important to work with your doctor to make sure you get the right treatment for your heart condition.



#### Normal heartbeat

Flow of electrical signals in a normal heartbeat.



#### Atrial fibrillation

Atrial fibrillation with abnormal signals originating in the atria.

#### Your symptoms

AFib symptoms vary depending on how advanced your AFib is, its cause, and your overall health. You may notice ...



Irregular, rapid, fluttering, or pounding heartbeat



Fatigue, shortness of breath, or weakness



Chest discomfort or pain



Dizziness

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#### Why did I get AFib?

The causes of atrial fibrillation are often unclear. AFib may be the result of:

- Heart abnormality from birth
- Damage to the heart from a heart attack
- Heart valve problems

People with otherwise normal hearts may also develop AFib.

#### Risk factors

- High cholesterol
- Heart disease
- Excess weight
- Alcohol abuse
- Some medications
- Sleep apnea
- Advancing age

- High blood pressure
- Smoking
- Caffeine
- Lack of physical activity
- Family history
- Heart disorder

#### Why now?

There are several reasons your doctor may be recommending ablation:

- Patients with AFib have better results when treated with ablation earlier.
- AFib is a progressive disease and, if left untreated, will continue to get worse.
- Some patients who receive ablation therapy have a lower rate of AFib disease progression compared to treatment with medications alone.

## Treating your AFib

The goals of your AFib treatment are to:

- Reduce AFib symptoms and improve your quality of life.
- Prevent blood clots with anticoagulation medication to decrease the risk of stroke.
- Control the heart rate to allow the ventricles (lower heart chambers) enough time to fill with blood.
- Reset the heart rhythm to allow the atria (upper chambers of the heart) and ventricles to work together more efficiently. This is also known as restoring sinus rhythm.



### DiamondTemp ablation<sup>†</sup>

If you have talked to your doctor and are considering radiofrequency catheter ablation for your AFib, you've taken an important step.

#### Why DiamondTemp ablation?

Radiofrequency (RF) ablation is a safe and effective alternative after medication to control your AFib. It's a minimally invasive procedure that may improve your quality of life.

The goal of the RF ablation procedure is to stop unwanted electrical signals causing the irregular heart rhythm. This procedure is performed by an electrophysiologist (EP) who specializes in the treatment of heart arrhythmias.

The DiamondTemp ablation catheter is different than other RF catheters. It uses real-time temperature sensing to detect when the tissue reaches 50° C, the temperature at which scar tissue forms. Your physician can use this data to determine when to stop ablating after successfully creating a lesion.

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3.3% safety event rate

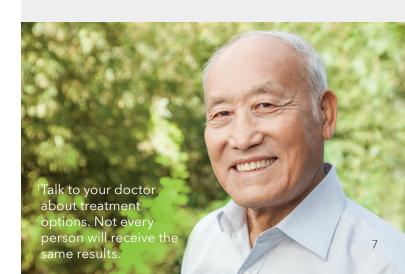
The DiamondTemp catheter is safe and has been shown to have a safety event rate of 3.3% compared to 6.6% with other RF catheters.

reduction in RF ablation duration

With a 40% reduction in RF ablation duration compared to other catheters, the total procedure time averages under two hours with the DiamondTemp ablation catheter.



The procedure uses RF energy to heat the tissue through the Medtronic DiamondTemp ablation catheter. The heat creates scar tissue (also known as a lesion) that disables unwanted electrical signals.



# Your DiamondTemp ablation procedure

Your doctor will discuss the procedure with you in detail, but here is a general overview of what you can expect.

#### **Before**

Your doctor will probably tell you not to eat or drink after midnight the night before your procedure. You may be under general anesthesia for the procedure. You may need to stop certain medications. You will also want to tell your doctor immediately about any changes in your health.

#### After

You will need to limit your activities for a couple of days. Minor soreness in the chest or bruising at the insertion site (groin) is normal. As your heart heals, it is common to have some AFib symptoms. Your doctor may prescribe medication to help and arrange follow-up visits to monitor your healing and heart rhythm. Let your doctor know if you experience any symptoms that are bothering you.



#### During the procedure

#### Access

The doctor makes a small incision in the groin area to insert the catheter. To access the left side of your heart, the doctor must cross thin tissue that separates the left and right sides of the heart. The DiamondTemp catheter is then advanced to the left atrium.

#### Ablate

When the DiamondTemp catheter is in position, the doctor introduces RF energy into the catheter. The RF energy heats the tissue where the catheter touches. This scars the tissue, stopping electrical signals that cause atrial fibrillation.

While ablating, RF catheters use a saline solution to keep the tissue from getting too hot. The DiamondTemp ablation catheter has a reduced saline flow which may be beneficial for patients with heart failure.

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## You may be wondering ...

#### Is DiamondTemp ablation safe?

RF ablation with the Medtronic DiamondTemp ablation catheter is generally considered to be a safe and effective treatment for AFib when medication isn't sufficient. It is a minimally invasive procedure, meaning there is no need to open the chest or make large incisions. The most common problem is local irritation or bleeding at the site of the incision. The risk of more serious complications is small, but you should talk to your doctor about whether the procedure is right for you.

#### How effective is ablation?

Cardiac ablation has been shown to effectively treat AFib, improving symptoms and quality of life for many patients.

Generally, the earlier your AFib is treated with ablation, the more successful it may be. Of course, every patient's experience is different. Sometimes after the procedure you will continue to have AFib episodes and may need a repeat procedure. It's also possible that you may need to continue with some type of medication. Be sure to discuss this and any other concerns you might have with your doctor.

#### My symptoms come and go. Do I need to have a procedure?

AFib can be a serious medical condition that should be treated no matter what level of symptoms you experience. Without effective treatment, AFib may lead to a stroke, heart failure, or other health complications. If your AFib does not improve after the use of medication, speak to your doctor about whether or not an ablation is the next step for you.

## What are the risks and complications?

RF ablation is generally a safe procedure. Complications are rare, but can be serious. Risks may include bleeding and bruising where the catheter was inserted, discomfort, chest pain, new or worsening heart conditions, new or worsening breathing conditions, infection, temporary or permanent stroke, severe complications leading to hospitalization, or potentially death. Always talk with your doctor about diagnosis and treatment information.

#### Where can I get more information?

For more information about atrial fibrillation or DiamondTemp ablation, visit medtronic.com/AFib, or call the toll-free Medtronic Patient Services line: 1-800-551-5544.

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Procedure Information for Catheter Ablation: Complications, while infrequent, can occur during catheter ablation. Some of the risks include bleeding and bruising where the catheter was inserted, discomfort, chest pain, new or worsening heart conditions, new or worsening breathing conditions, infection, temporary or permanent stroke, severe complications leading to hospitalization, or potentially death. Your physician can further explain these complications as a part of a comprehensive risk/benefit evaluation, as you consider catheter ablation for your condition. This treatment is prescribed by your physician. This treatment is not for everyone. Please talk to your doctor to see if it is right for you. Your physician should discuss all potential benefits and risks with you. Although many patients benefit from the use of this treatment, results may vary. Information on this site should not be used as a substitute for talking with your doctor. Always talk with your doctor about diagnosis and treatment information. For further information, please call the Medtronic toll-free number at 1-800-551-5544 (8:00 a.m. to 5:00 p.m., Monday-Friday, CT) or see the Medtronic website at medtronic.com.

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