

## ARRHYTHMIA

### What is Arrhythmia?

An arrhythmia is a problem with the rate or rhythm of the heartbeat. The heart can beat too fast, too slow or with an irregular rhythm.

- **Tachycardia**- a fast heart rhythm with a rate of more than 100 beats per minute
- **Bradycardia**- a slow heart rhythm with a rate below 60 beats per minute
- **Atrial Fibrillation** - this is the most common arrhythmia- and the heart beats at an irregular and fast heartbeat

Most arrhythmias are harmless, but some can be serious. If the heartbeat is too fast, too slow or irregular the heart may not be able to pump enough blood to the body. Lack of blood flow can damage the brain, heart and other organs.

The four main types of Arrhythmia are:

- Premature (extra) beats: most common type of arrhythmia and are often harmless
- Supra ventricular arrhythmia: Fast heart rate that includes atrial fibrillation, atrial flutter, paroxysmal supraventricular tachycardia, and Wolff Parkinson white syndrome in the upper chambers of the heart
- Ventricular arrhythmia: Arrhythmias that start in the ventricles and these arrhythmias usually need medical attention straight away
  - Ventricular tachycardia is a fast, regular beating of the ventricles
  - Ventricular fibrillation occurs when disorganised electrical signals make the ventricles quiver instead of pumping normally. This condition must be treated right away
- Bradyarrhythmia: the heart rate is slower than normal. If the heart rate is too slow, not enough blood reaches the brain. This can lead to loss of consciousness

### What causes it?

An arrhythmia can occur if the electrical signals that control the heartbeat are delayed or blocked, or if the heart produces extra electrical signals.

Other causes of arrhythmia include smoking, heavy alcohol use, use of certain drugs and medicines, too much caffeine or nicotine, strong emotional stress or anger.

### What are the symptoms?

Many arrhythmias cause no signs or symptoms. When signs or symptoms are present, the most common ones are:

- Palpitations
- A slow heartbeat
- An irregular heart beat
- Feeling of pauses between heart beats.
- Anxiety
- Weakness, dizziness and light-headedness
- Sweating
- Shortness of breath
- Chest pain

### How is it diagnosed?

Your doctor may ask you about your signs and symptoms and family medical history. Your doctor will also perform a thorough physical examination:

- Your doctor will listen to the rate and the rhythm of your heart
- Check your pulse to find out how fast your heart is beating
- Check for swelling in your legs or feet

Medical procedures and tests:

- ECG: an ECG detects and records the heart's electrical activity. The test shows how fast the heart is beating and its rhythm. If your arrhythmia comes and goes, your doctor may have you wear a portable ECG monitor
- Blood tests: Thyroid and potassium levels are checked in your blood
- Chest x ray: The X- ray can show whether your heart is enlarged
- Echocardiograph: This test uses sound waves to create a moving picture of the heart. It provides information about the size and shape of the heart and how well the heart chambers and valves are working
- Electrophysiology study (EPS). This test is used to assess serious arrhythmia. The test records the heart's electrical signals. The doctor triggers an arrhythmia to assess whether an arrhythmia medicine will stop the arrhythmia
- Coronary angiography: Coronary angiography uses dyes and special X rays to show the inside of your coronary arteries. This test helps to identify any blockages in the heart that are causing arrhythmias

### How can Arrhythmia affect my health?

Most arrhythmias are harmless but some can be serious or life threatening. When the heart rate is too fast or too slow or irregular, the heart may not be able to pump enough blood to supply the body. Lack of blood flow can damage the brain, heart and other organs.

If you have an arrhythmia that needs treatment it's important to get ongoing care. Treatment is needed when an arrhythmia cause serious symptoms such as dizziness, chest pain or fainting. Make sure that you see your doctor regularly for a comprehensive check up and make sure that you take your arrhythmia medication as prescribed by your doctor.

## Treatment

Common arrhythmia treatments include medicines, medical procedures and surgery. Treatment is needed when an arrhythmia causes serious symptoms such as dizziness, chest pain or fainting.

Medicines:

- Slow your heart rate: Beta blockers e.g. Atenolol ; Calcium channel blockers e.g. diltiazem , Verapamil; and Digoxin
- Keep your heart beating at a normal rhythm: Amiodarone
- Speed up a heart that is beating too slowly
- Anticoagulants are used to prevent the risk of clots forming e.g. Aspirin, Warfarin

Medical procedures:

- Some arrhythmias are treated with a pacemaker. The device uses electrical impulses to prompt the heart to beat at a normal rate
- Some people, who are at risk for ventricular arrhythmia, are treated with a device called an implantable cardioverter defibrillator (ICD). This device also uses electrical pulses to help control life threatening arrhythmias.
- Surgery: Coronary bypass grafts may be done if coronary artery disease is causing arrhythmia.

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## Your role in managing this condition

Keeping your heart healthy is key to managing arrhythmia.

- Because many arrhythmias are caused by underlying heart disease, go to your doctor for regular check-ups. Advise your doctor if you experience worsening symptoms
- Follow a healthy diet; reduce your intake of fats and cholesterol
- Try to lose any excess weight
- Make sure that you get regular exercise
- Take your medication exactly as your doctor has prescribed. Do not stop your medicines unless advised to do so by your doctor
- Learn to manage stress and emotions such as anger, in your life.

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## Disclaimer

The reader should always consult a doctor if they believe they may be suffering from this medical condition. The information contained herein is intended to assist understanding and should not take the place of your doctor's advice or instructions. Whilst every effort has been made to ensure the accuracy of the information contained herein, Universal Care does not accept responsibility for any errors or omissions or their consequences, and shall not be liable for any damages suffered arising out of the use of this information.

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