



What is an arrhythmia?

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Arrhythmia is an umbrella term used to describe a number of conditions where the heart beats too slowly, too rapidly or irregularly because of a disturbance with the heart's normal electrical activity.^{1,2}

What are the different types of arrhythmia?

- **Ectopic beats** are the most common rhythm disturbance and are heart beats that occur earlier than normal within the normal heart cycle. They can originate in either the top chambers of the heart (the atria) or the bottom chambers (the ventricles)³
- **Atrial fibrillation** is the most common abnormal heart rhythm involving rapid and irregular activity in the heart. Although it may affect young people, atrial fibrillation becomes more common with increasing age and typically affects older patients of 65 and over¹
- **Atrial flutter** occurs due to the atria beating very rapidly as electricity circulates around them and is commonly seen in middle aged and elderly patients. It can occur in those with no other heart problem, but is also seen in patients with some form of structural heart disease or who suffer from atrial fibrillation¹
- **Atrial tachycardia** is a fairly uncommon arrhythmia and is a regular fast rhythm from the atria⁴
- **Supraventricular tachycardias** are common arrhythmias that affect 1% of the population. They are caused by small abnormal electrical impulses that begin in the upper chambers of the heart (and the atria) and cause the heart to beat very rapidly. Although they cause unpleasant symptoms, such as chest pains, palpitations and dizziness, most are benign. However, a subgroup known as Wolff Parkinson White Syndrome can occasionally cause serious rhythm problems⁵
- **Ventricular tachycardia** is a fast rhythm that starts in the bottom chambers of the heart (the ventricles) and leads the heart to beat so rapidly that it cannot fill or pump out enough blood adequately. Although it can occur in patients with an otherwise normal heart, it is commonly seen in patients who have suffered a previous heart attack and, in this setting, may be life-threatening¹

What are the causes?

There is often no obvious cause for an arrhythmia. However they can be caused by an underlying condition such as coronary artery, heart valve or heart muscle disease, thyroid conditions or high blood pressure. Arrhythmias can also be triggered by stress, smoking, consuming excess alcohol, caffeine and a number of drugs have side effects that can induce arrhythmias.⁶





How are arrhythmias diagnosed?

There are several tests used to diagnose arrhythmias and the test used depends on both the type and severity of the symptoms:

- An ordinary 12-lead electrocardiogram (ECG) can be useful, especially during an episode of symptoms. If a patient has one recorded whilst experiencing symptoms, they should always request their own copy to ensure that it is available to be shown to a specialist²
- A 24-hour (or longer) ECG is used to monitor the heart rhythm and allows analysis of the electrical activity in the heart to determine the type of arrhythmia³
- An ultrasound scan of the heart, called an echocardiogram, is often performed to check how the pumping chambers of the heart are working, and to look at the heart valves³
- 24-hour blood pressure tests are used to monitor and assess blood pressure control³

Who is affected?

Anyone can be affected by an arrhythmia at any age. An estimated 700,000 people in the UK have an arrhythmia.²

What are the symptoms?

Symptoms of arrhythmias can range in severity from a minor inconvenience to a potentially fatal problem and include palpitations, missed or extra beats, feelings of a racing heart, shortness of breath, dizziness or faintness.⁷

- In some instances, electrophysiology tests are carried out to determine which part of the heart is responsible for the abnormal rhythm³
- More detailed investigations can include angiograms, which check the blood supply to the heart and look at other structural details³

What type of doctor treats arrhythmias?

Lots of doctors do see patients with arrhythmias, including a variety of different cardiologists. Doctors with expertise in diagnosing and treating arrhythmias are called 'electrophysiologists' and are highly skilled in diagnosing and assessing the best out of a wide range of effective treatments for patients with cardiac arrhythmias.¹

For more information on any of the above visit
www.thewellingtoncardiacservices.com

The Wellington Hospital

The Wellington Hospital based in north west London is one of the world's leading independent private hospitals with an international reputation for the excellence of its acute medical care and an established cardiac centre of excellence.

The cardiac unit has 45 beds occupying two floors dedicated to the care of in-patient and day case treatment cardiac patients.



References

1. Arrhythmia Alliance Website. Available at www.hearhythmcharity.org.uk
2. Department of Health. National Services Framework for Coronary Heart Disease. Chapter Eight: Arrhythmias and Sudden Cardiac Death. March 2005
3. British Heart Foundation Website. Available at http://www.bhf.org.uk/living_with_a_heart_condition/understanding_heart_conditions/types_of_heart_conditions/heart_rhythms.aspx
4. American Heart Association Website. Available at <http://www.americanheart.org/presenter.jhtml?identifier=3062868>
5. The Wellington Hospital Website. Available at www.thewellingtoncardiacservices.com
6. National Heart, Lung and Blood Institute Website. Available at http://www.nhlbi.nih.gov/health/dci/Diseases/arr/arr_causes.html
7. Arrhythmia Alliance, Heart Rhythm Booklet. Available at http://www.hearhythmcharity.org.uk/Documents/Booklets/HeartRhythmn_Booklet.pdf

The Arrhythmia Centre

With its extensive and ultra modern facilities, the very latest equipment and a highly skilled team of doctors specialising in arrhythmias, cardiac physiologists, radiographers and nurses, the Arrhythmia Centre at The Wellington Hospital is fully equipped to diagnose and treat the full range of arrhythmias.

There are three state-of-the-art cardiac catheterisation laboratories (cath labs) and a fully equipped non invasive suite. The cath labs are equipped with the latest X-ray imaging units. Two of the labs are wired for electrophysiological studies and are equipped with the two most up-to-date arrhythmia mapping systems available.

Meet the team

The cardiac centre at The Wellington Hospital is home to some of the nation's most distinguished cardiologists and cardiac surgeons who lead the specialist medical teams.



Dr Anthony Chow

Dr Anthony Chow MBBS, BSc, MD, FRCP, is a Consultant Cardiologist at The Heart Hospital, UCLH and the Royal Berkshire Hospital. His special interests are electrophysiology, pacing and devices, treatment of atrial fibrillation, complex arrhythmias, devices and heart failure therapy.



Dr Prapa Kanagaratnam

Dr Prapa Kanagaratnam MA, MRCP, PhD, is a Consultant Cardiologist at Imperial College Healthcare NHS Trust based at St Mary's Hospital. He regularly treats patients with all forms of cardiac rhythm abnormalities including ablation of tachycardias and implantation of devices such as pacemaker, defibrillators and biventricular systems.



Dr Anthony Nathan

Dr Anthony Nathan MD, FRCP, FACC, FESC, FRCS, is a Consultant Cardiologist at St Bartholomew's Hospital. He carries out all forms of cardiac electrophysiological studies including ablation of atrial, junctional and ventricular tachycardia. He regularly performs implant and explant of pacemakers and implantable defibrillators including biventricular devices (cardiac resynchronisation therapy) for heart failure.

To arrange an appointment with one of our consultants, call +44 (0) 8444 121 929

Treatments

There are several different treatment options for patients including:

- Special drugs
- Keyhole catheter ablation therapy for a wide range of different cardiac arrhythmias (including for atrial fibrillation)
- DC Cardioversion
- Pacemaker Implantation
- Cardiac Resynchronisation Therapy
- Implantable Cardioverter Defibrillator (ICD) implantation

Directions

The Wellington Hospital
Wellington Place
St. John's Wood
London NW8 9LE

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Infection Control

Infection control is a key priority in our hospital and the incident of infection here is extremely low. We work tirelessly to reduce the risks of catching an infection while you are in hospital by putting simple, but effective measures in place and providing training for all staff disciplines. We expect all staff to observe simple rules of hygiene.

GP Liaison Team

The Wellington Hospital has a dedicated GP Liaison Team to assist with all appointment bookings to ensure patients have a seamless journey from referral through to after care.

For more information or to arrange an appointment, please call: +44 (0) 20 7483 5148



The Wellington Hospital North

Wellington Central

The Wellington Hospital South

Nearest London Underground Station

St. John's Wood on the Jubilee Line.

Parking

Limited pay & display parking is available in surrounding streets and a Masterpark Car Park is in Kingsmill Terrace. Call 020 7722 1404 for availability and rates.