PATIENT RESOURCE WINS TOP AWARD!

Our ‘Atrial Fibrillation and You’ booklet has received the ‘Medical Book Award’ from the British Medical Association.

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Overview of AF Association Patients Day 2018 • Learn about Relaxation and AF
Read our featured Member Stories • Celebrate 60 years of the Pacemaker
PLUS MUCH MORE
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Have a story to tell? Want to be featured in our next Issue?

Contact Us:

UK  Call: +44 (0) 1789 867502  Email: info@afa.org.uk  Visit: www.afa.org.uk
USA  Call: +1 843 415 1886  Email: info@afa-us.org  Visit: www.afa-international.org
Enter our Raffle!

You will have found a book of RAFFLE TICKETS with this newsletter. To be in with a chance of winning some incredible prizes, including a Marks and Spencer voucher, tickets to London attractions, plus many more!

Please ensure that stubs and payments are returned by Friday 12th April 2019, to Unit 6B, Essex House, Cromwell Business Park, Chipping Norton, OX7 5SR

If you would like to order more tickets, email: r.harris@heartrhythmalliance.org or call +44 (0)1789 867502

Visit our Online Shop

From heart monitors to t-shirts and money boxes, you can find lots of things in our online shop all at fair prices. Every purchase helps us to continue providing you with the support you need.

www.heartrhythmalliance.org/afa/uk/shop-online

Cold and Flu Medication with AF

Here at the AF Association, we regularly receive calls during the cooler months asking if it is safe to take cold and flu medication, or which is best to take. People with atrial fibrillation can take some cold medication; however, it is best to avoid those with decongestants. Some cold medicines have “decongestants” that are actually stimulants, such as caffeine or ephedrine, and these can increase the heart rate in people with AF. In people with AF who have been maintaining a normal heart rate, or sinus rhythm, decongestants can cause the AF to return.

It is a good idea to check with your doctor or pharmacist about which medication is best to take for your cold. We always also recommend that you read the label.

You should watch out for medications containing:

- Pseudoephedrine
- Phenylephrine
- Decongestant nasal sprays and pumps (oxymetazoline)
- Combination cold and sinus medications that have both decongestants and antihistamines
AF Association Patients Day 2018 REVIEW

We would like to say a massive THANK YOU to all those who attended Patients Day 2018.

AF Association Patients Day 2018 was a sold out event, and once again a huge success. We would like to thank all of the medical professionals for their wonderful presentations, all of which were extremely interesting, informative and were well received well by attendees.

Our US team flew out to attend and assist during Patients Day. It was a great opportunity for them to meet some of our UK patients and also gain experience with this annual event.

The morning session was chaired by AF Association Trustee, Dr Matthew Fay, GP, sharing his special interest in cardiology. Professor Prapa Kanagaratnam presented ‘Managing weight can be as effective as ablation’ which raised lots of interesting questions within the audience. Mrs Angela Griffiths followed with ‘Exercise and AF’ following on the conversation started before her, and creating a healthy discussion amongst patients.

“Every Presentation suited my needs. This was my first Patients Day meeting, I am so glad that I came.”
- Patient, Anonymous

SAVE THE DATE
AF Association Patients Day 2019
6th October, The ICC, Birmingham, UK
Register at: www.heartrhythmalliance.org/afa/uk/patients-day
“Keep doing what you are doing!”
- Patient, Anonymous

The morning break was followed by Dr Fay talking about DVLA guidelines and travelling with AF, as well as a brief presentation regarding when to seek medical attention.

The afternoon sessions were chaired by Mrs Angela Griffiths, Arrhythmia Nurse Specialist of Oxford.

Despite a slight change to the agenda, the afternoon was well received. Beginning with Dr Joseph De Bono talking about medication interactions, followed by our very own Trudie Lobban MBE, talking about the work of the AF Association. This gave the opportunity for the AF Association to award a Thank You certificate to an attendee, Mr Ian Thom, who participated in sixteen 10K runs throughout 2018 and raised an amazing £2000.

Dr Kim Rajappan then spoke about the difference between AF and Atrial Flutter, with many people vying to ask their questions following his presentation. Professor Kanagaratnam then took the

lectern again, this time speaking about CHADSVASc and what it means to the patient. Morwenna Opie-Moran closed out the day by discussing CBT and how it can help.

The AF Association was extremely pleased with how well the Patients Day 2018 went. We are so grateful that we are able to provide our patients with such a unique opportunity to ask questions and speak with medical professionals regarding their conditions.

“For more information
Call: +44 (0)1789 867502
Email: info@afa.org.uk
Visit: www.afa.org.uk

“Really good to hear of the latest research. Things have changed a lot in the last 18 years since I was diagnosed.”
- Patient, Anonymous
Outstanding Individual who has contributed to Arrhythmia Services Award

Presented to
Dr Andrew Mitchell and Dr Mark Anderson

Dr Mitchell single-handedly manages a complex and demanding cardiac service in Jersey, Over the last 10 years he has transformed arrhythmia management on the island.

Dr Anderson developed the EP service from scratch in Swansea. With his commitment to training and inclusivity he has developed the arrhythmia service consistently and tirelessly over the last 20 years.

Team of the Year Award
Presented to
The Friarage Hospital, Northallerton Cardiac Rhythm Management Team Service.

The Friarage Hospital (FHN) is the smallest acute DGH in England, providing health care for more than 120,000 people in rural North Yorkshire. The cardiology department is a fully integrated unit. The team has expanded to include two FHN based cardiologists, cardiac physiologists, specialist nurses (SpN), administrative staff and support workers, all of whom provided a high quality and responsive service for patients. Since 2013 they have introduced key CRM service improvements in areas such as; Rapid Access Arrhythmia Service, Complex Device Patient Repatriation and Remote Patient Monitoring (RPM) Clinics.
Every year we say thank you by recognising individuals who have worked hard to support Arrhythmia Alliance, AF Association and STARS.

**Lifetime Achievement Award**
*Presented to*
**Professor Robert Sheldon,**
Cardiac Arrhythmia Specialist

Professor Sheldon, who is also Professor of Cardiac Sciences, Medicine and Medical Genetics at the University of Calgary, Canada, as well as a Fellow of the Heart Rhythm Society, has allowed STARS (Syncope Trust And Reflex anoxic Seizures) to benefit from his knowledge and appreciation of vasovagal syncope over the past 25 years. Every year Professor Sheldon travels to attend Heart Rhythm Congress and he supports STARS Patient Days by contributing to the agenda, introducing new international speakers and presenting for STARS patients.

**Volunteer of the Year Award**
*Presented to*
**Jane Bateson,** STARS Member

In recognition of her outstanding fundraising success for STARS and her determination to raise awareness of the work we do. Jane also shares AF Association and Arrhythmia Alliance booklets on her book swap stand in her local supermarket, which are always popular. So far, Jane has raised over £2000. Not only does she tirelessly fundraise for STARS, but she also works very hard to raise awareness.
50% of people will faint at some point in their life. Our message at last years Arrhythmia Alliance World Heart Rhythm Week (A-A WHRW) was that no faint is a simple faint, and all faints should be investigated.

Fainting with no clear reason can be a serious sign of possible life-threatening arrhythmia or a symptom of Sudden Cardiac Arrest (SCA) which is the number one killer in the western world.

This awareness week consisted of hospitals, doctors’ surgeries, support groups and Patient Groups, all around the world, holding ‘Know Your Pulse’ events. The mission was to raise awareness of the importance of knowing your pulse to know your heart rhythm and therefore raise awareness of the diagnosis and treatment of arrhythmias. Across the pond our US team also held KYP events, as well as holding CPR and AED awareness workshops. This meant that tens of thousands of pulse checks were taken in over 30 countries.

Wednesday 6th June was an extremely significant day, as it marked the 25th Anniversary of our sister charity STARS (Syncope Trust And Reflex anoxic Seizures).

To celebrate our founder and CEO, Trudie Lobban MBE hosted a very special event at the House of Commons, Westminster to raise awareness of arrhythmias and syncope. The day saw a gathering of medical professionals, trustees, staff, supporters of the charity and patients from past and present, to celebrate the wonderful work that STARS has done over the last 25 years.

We would like to say a huge thank you to everyone who took part in and supported A-A WHRW 2018.

SAVE THE DATE
A-A WHRW 2019
3rd - 9th June

For more information and to get involved in the UK
Visit: www.heartrhythmalliance.org
Call: +44 (0)1789 867501
Email: info@heartrhythmalliance.org
AF Association
Global AF Aware Week 2018

19th - 25th of November 2018 was AF Association Global AF Aware Week. With more than 200 awareness events held in the UK, it was a great success. Awareness events took place all over the world, including our US locations and going as far a field as India, New Zealand, Brazil and China.

150 patients, medical professionals and Members of Parliament attended our second Parliamentary event of the year, a reception held in the Terrace Pavillion in Westminster, to raise awareness of atrial fibrillation (AF).

Mr Barry Sheerman, MP for Huddersfield and chair of the All-Party Parliamentary Group on AF (APPG-AF), opened the speeches with a passionate talk on why AF awareness is so important to him personally, as his wife has AF.

Professor A. John Camm followed, speaking about the AF Association and presented certificates to all of the 2019 Healthcare Pioneer Award Winners.

Attendees also heard from Professor Jamie Waterall of Public Health England, he spoke on what they are doing to raise awareness of atrial fibrillation. Ed Harding spoke about the ‘White Paper on inequalities and unmet needs in the detection of atrial fibrillation (AF) and use of therapies to prevent AF-related stroke in Europe’, which was launched the previous day. The report was also co-authored by Trudie Lobban MBE and Professor A. John Camm.

Thank you to everyone who took part in and supported AF Association Global AF Aware Week 2018.

SAVE THE DATE
AF Association GAFAW 2019
18th - 24th November

For more information and to get involved in the US
Visit: www.heartrhythmalliance.org
Call: +1 (843) 415 1886
Email: info-us@heartrhythmalliance.org
AF Association IN THE USA
An update from our US Team

A-A World Heart Rhythm Week

Our US team, based in Hilton Head, South Carolina, held a number of ‘Know Your Pulse’ events during Arrhythmia Alliance World Heart Rhythm Week 2018. Event locations included Hilton Head Island (HHI) Hospital, HHI Library, HHI Senior Center and Coligny Beach.

A free CPR and AED training event was also held in collaboration with Bluffton Township Fire Department. 20 individuals were invited to learn CPR and the use of an AED, therefore increasing the number of people certified in the local community.

They also participated in the ‘One Island, One Community’ event which was attended by over 1300 people. The US team conducted free pulse checks and distributed resources to over 100 people.

A visit was also made to the Children’s Centre to educate the summer camp students on AEDs and on how to take their pulse.

During the Week, Arrhythmia Alliance was also the recipient of a City of Hardeeville Council Proclamation - the purpose was to proclaim June 4th - 20th as Arrhythmia Alliance World Heart Rhythm Week and in recognition of A-A’s continued awareness programs within Hardeeville. This proclamation will help the Arrhythmia Alliance Defibs Save Lives #HardeevilleHeartsMatter campaign enter phase two, which will consist of a fundraiser and educational events to help raise funds to place an additional five AEDs.

AF Association Global AF Aware Week

Even though AF Association Global AF Aware Week 2018 coincided with the Thanksgiving Holiday our US team still hosted several events in support of GAFAW. These events allowed the team to connect with members of the local community, increase awareness of atrial fibrillation (AF), as well as spread the word about the AF Association in the USA. The US team reached over 500 people by conducting free pulse checks and distributing our resources.
Latest Reports Released

White Paper 2018
A new White Paper focused on atrial fibrillation (AF) and AF-related stroke, developed by a group of experts is now available. With at least one in five people aged over 40 expected to develop AF in their lifetime, this isn’t an issue we can afford to ignore.

In 2013, stroke was responsible for 9% of all deaths in Europe. AF is associated with at least one in five strokes, and AF-related strokes tend to be more severe than other types of stroke.

The tools needed to detect AF exist, and there are effective therapies available to reduce the risk of AF-related stroke. However, inequalities still exist when it comes to detection and treatment. Much more needs to be done to ensure everyone with AF has access to the care they need. The White Paper calls on governments across Europe to express a formal strategy or position on AF-related stroke and address this significant challenge to the future sustainability of our healthcare systems.

Find out more:
https://bit.ly/2Vg2Lyc

AF Association Healthcare Pioneers Report 2019

Winners included programmes on the implementation of a secondary care service for screening, optimisation and support for prevention of AF-related stroke and the introduction and evaluation of a pharmacist-led anticoagulation initiation service in primary care.

To read the AF Association Healthcare Pioneers Report 2019 and view the list of winners visit:
www.afa-international.org

To take part in the AF Association Healthcare Pioneers Report 2020 visit:
www.heartrhythmalliance.org/afa
Hello, I’m Anna and I am the UK Projects Manager at Arrhythmia Alliance. My job at the charity involves organising both of our annual awareness weeks – Arrhythmia Alliance World Heart Rhythm Week in June and AF Association Global AF Aware Week in November as well as our flagship event, Heart Rhythm Congress, and other events for clinicians.

Outside of work, I enjoy spending my spare time with my husband and two sons which generally involves listening to their bands or standing on the football touchline!

I really enjoy working for the charity – we achieve some amazing things in our small but lovely team!

Hello! My name is Stephen and I joined the UK Events Team towards the end of November 2017.

I have always enjoyed organising and running events and when the opportunity arose to develop my skills at this amazing charity I couldn’t have applied any sooner. I love being able to put together events for Healthcare Professionals and Patients which help to save lives, this drives me to succeed every day!

I’m a football fanatic, a proud Chelsea FC supporter. I also love golf and squash and ticked the London Marathon off my bucket list last year with a time of four hours and 25 minutes.
Hello! My name is Clare and I joined the US team in August 2018 as Program and Events Coordinator. This is a new position for me but I am ready for the challenges and have already found it to be an interesting and incredibly enjoyable role! I love being a part of the amazing work that the charity does.

I am originally from South Yorkshire in England and I graduated in 2015 from Sheffield Hallam University with my master’s degree in Graphic Design. I moved to the US two years ago to marry my husband, who I met at Walt Disney World, FL.

No surprise, I LOVE all things Disney and loyal to my British roots I drink way too much tea. I am a firm believer that everything happens for a reason and that life should be lived one adventure at a time.

Hello everyone, I’m Sharonica! My journey with the US team began in January 2018 as a senior intern, volunteering three days a week with the charity. At the completion of my internship I was offered a full-time position as the Patient Services Coordinator and due to the mission and values of this organization I could not turn down the offer.

I am a recent graduate with a degree in Public Health and a proud mother of a beautiful eight-year-old girl, Domonique. I’m a firm believer in Jesus Christ and trust that all things happen for a reason.

In my first few months I have had the ability to witness the benefits this organization provides and above all I enjoy my work as a caring face for the charity and providing support. Happy to be a part of this amazing team!
Does Atrial Fibrillation (AF) cause heart failure? or does heart failure cause AF?

Dr Boon Lim, MA, FRCP, PhD
Consultant Cardiologist and Electrophysiologist
Honorary Senior Lecturer, Imperial College London,
Hammersmith Hospital

The answer to both questions is yes.

Atrial fibrillation (AF) is the most common cardiac arrhythmia, and a strong risk factor for developing AF is the presence of heart failure. With advances in cardiovascular medicine, particularly in the effective treatment of coronary artery disease, including rapidly-treated heart attacks, the prevalence of heart failure in an aging population is increasing.

There are common risk factors for development of heart failure and AF. These include ischaemic heart disease, diabetes and hypertension. However the presence of AF itself is a risk factor for developing heart failure, with a three-fold increase in HF developing in patients who have AF.

Likewise, patients who are in established heart failure also have a much higher likelihood of developing AF, which in turn reduces the heart’s pumping efficiency, which leads to further deterioration of symptoms of heart failure, including shortness of breath, dizziness and fatigue.

How do you diagnose AF in heart failure?
In patients with existing heart failure, development of palpitations which feel like irregular or rapid heartbeats, as well as worsening symptoms of shortness of breath or fatigue should prompt a pulse check. If you feel an irregular heartbeat, then you should suspect AF. The diagnosis of AF can be confirmed by means of a 12 lead electrocardiogram (ECG). However, some patients with heart failure also have pacemakers or implantable cardiac defibrillators (ICD). If this is the case, you should normally be able to contact your pacemaker team who perform testing on your device to check if the device shows that you are in AF. The third way you could
check is to get a mobile ECG recording device (i.e. AliveCor) which can link directly to your mobile phone providing a direct recording of your heart rate and rhythm.

*You can purchase an Alivecor device through our online shop or by calling +44 (0)1789 867502*

**What do you do if you have heart failure and suspect you may have developed AF?**

Get a diagnosis as soon as possible. If you have a health care professional that you can make contact with, such as a heart failure nurse, a local pacemaker clinic, or your GP, please arrange to see them as soon as possible and confirm your rhythm with a 12 lead ECG. Prompt treatment of newly diagnosed AF may help prevent deterioration of heart failure symptoms.

**What are treatment options of AF in heart failure?**

AF should be treated in the usual way – the most important consideration of stroke prevention, and because heart failure is a risk factor for stroke, your doctor would normally recommend that you start on anticoagulation, to prevent blood clots from forming in the heart which may lead to a stroke.

The second consideration is rate control – your doctor will check on your heart rate and usually recommend drugs to control your heart rate (most commonly a beta blocker such as bisoprolol). Depending on the duration of AF, and the size of your heart, a rhythm control strategy may well be recommended, in which your doctor may choose to perform a cardioversion (electric shock to restart the heart) or a catheter ablation procedure.

A third option which will only be relevant if you already have a pacemaker is for your doctor to perform an ablation procedure of your AV node, which is the main electrical conduit between the atrial (top) chambers and the ventricles (bottom) chambers of the heart. In this instance, ablation of the AV node will disconnect the top from the bottom chambers of the heart, making it impossible for your heart to beat quickly on its own accord in AF. In this instance, patients then become dependent on their pacemaker for normal heart functioning.
The Long and Winding Road
Atrial Fibrillation and e-Bikes
- Nick, Hampshire

For a moment, as I near the crest of another hill on my bicycle, I reflect on the last few years. A period when I sometimes thought that I’d never really get back on my feet, let alone return to two wheels. Why? Countless cardioversions and six surgical ablations, with the fifth in December 2016 going badly wrong.

So, what’s enabled me to get back in the saddle? Two things: one an electric bike, more of which in a moment; the second shifting from permanent to paroxysmal atrial fibrillation (AF) following my sixth op at a new hospital in May 2018.

Prior to this, op five nicked the femoral artery at the top of my right leg/groin – a potentially fatal complication which unfortunately wasn’t picked up until two weeks after leaving hospital. By then the internal bleeding was so bad that, ironically, my naked lower trunk looked like I was wearing black cycle shorts – even if cycling was far from my mind at that point!

“You didn’t drive here, did you?”, the doctor asked when I returned to the hospital – the pressure on the car brake or accelerator pedal alone sufficient, apparently, to have popped the ballooning artery in my leg, killing me instantly. Blimey!

I was prepared for surgery a humdrum discussion about the possibility of losing my leg (“or worse”), followed by the groin surgery itself to mend the tear. A week in hospital, then a slow and sometimes painful recuperation at home.

Walking remained a huge challenge for the first six months. Even now, full recovery is still not quite there 18 months on, though I can walk normally now, and cycling helps, too.

The moral of the story? If you have concerns post-op, don’t hesitate to follow up!

Yet, now, as I push down on my pedals (and add a cheeky hit of the power ‘boost’ button) I can reach 13-14mph on the flat – and no hill has yet defeated me. I cannot describe my enjoyment when, sporting nothing but old shorts and a top, I encounter a group of MAMILs (Middle Aged Men in Lycra) going up a hill and I can effortlessly sweep majestically past them to their evident surprise and confusion.

Seriously, though, AF – as many have written on the AF Association website – can be a long and winding road. For every friend who ‘helpfully’ tells you of someone they know whose ‘had AF and whose ablation allowed them back to the office/running marathons etc the next day’, there are plenty for whom
it feels like a potentially limiting and transforming, experience. **No two days are the same.**

None of my first five ablations lasted more than three months, before I returned to permanent tachycardia. The shortest lasted a rather insulting 12 hours. And what felt like dozens of cardioversions on top seemed like pointless diversions. Work, income, and mood all affected, too. Rhythm control meds for me, for example, have caused severe tiredness and – I’m pretty sure – increases in Bisoprolol dosage have precipitated the onset of one period of depression, too.

So, as an occasional cyclist in the past, when I spotted the Cytronex e-bike ‘kit’ I thought I’d give it a go as an occasional alternative to walking. Even if you sweat on a bike, that’s somehow more acceptable, I told myself.

The e-bike system – a tiny almost invisible and silent motor on the front wheel hub, and a battery looking like a water bottle, adds only 3.6Kg of weight and provides a discreet power boost beyond anything that I could have imagined. And as a bonus, (as others have said in the AF Association’s Living with AF stories), I’ve **discovered that exercise also seems to help end episodes of AF, too.**

I’m not yet at the end of my journey. A review of my sixth operation, (having changed hospitals after op number five) is due in August 2018. Yet, wherever you are on your AF travels – or even travails – why not give an e-bike a try? Obviously, check with your GP before any new physical activity as every AF is different – but an e-bike could just be a bit of fun and even help you get back on the path of your choice. It’s great fun and has put a smile back on my face.

**Help us to help others - share your story**

**UK** Call: +44 (0)1789 867502 or Email: info@afa.org.uk  
**US** Call: +1 (843) 415 1886 or Email: info@afa-us.org
**The Convergent Procedure**
The complete approach for atrial fibrillation Patients

Faizel Osman
*Consultant Cardiologist and Electrophysiologist at Coventry and Warwickshire University Trust Hospitals*

What is Atrial Fibrillation?
Atrial fibrillation (AF) is the most common heart rhythm disorder, caused by rapid and disorganised electrical signals that disrupt blood flow in the upper chambers of the heart (atria). Patients typically experience shortness of breath, chest palpitations and fainting. AF is also a leading cause of stroke.

Why is AF difficult to treat?
The majority of AF patients have structural heart disease, which is associated with an enlarged heart and is very challenging to treat effectively with traditional methods. Many of these patients have had continuous AF for more than one year, and they may have failed one or more catheter-based treatments, and currently take anti-arrhythmic and anticoagulant medications.

What is the Convergent Procedure?
A truly minimally invasive approach that combines the best of electrophysiology (EP) and cardiac surgery treatments to help restore normal heart rhythm for long time atrial fibrillation (AF) patients, including those with structural heart disease and an enlarged heart, those who have previously failed one or more other treatments, and patients who have suffered with AF for many years.

Depiction of the ablation catheter and typical epicardial lesion set
A complete approach for AF patients

• Combines best techniques of an electrophysiologist (EP) and surgeon
• No chest incisions or ports
• Minimal pain
• Short hospital stay
• Quick recovery time
• Intraoperative diagnostics confirm success

How is the procedure performed?

A cardiac surgeon and an EP work together as a team, using radiofrequency (extreme heat) to produce lesions (scar tissue) on the heart to block abnormal electrical signals. The surgeon is able to create a comprehensive, linear lesion pattern on the outside surface of a beating heart through a small incision (2 cm) made in the patient’s abdomen. There are no invasive chest incisions and/or ports, as in other surgical procedures.

The EP then threads a catheter through the patient’s femoral vein, in the groin, to reach the heart and fill in any gaps in the ablation. The EP utilizes diagnostic techniques to confirm all abnormal electrical signals have been interrupted.

What is recovery like?

Most patients who have undergone the convergent procedure experience restored normal heart rhythm and have been able to stop taking daily heart rate and heart rhythm medications shortly following treatment. Typical hospital stays have lasted two to three days and patients are back to normal activities quickly.

Which difficult to treat patients are candidates for the convergent procedure?

• Patients who have had AF for many years
• Patients with structural heart disease and an enlarged heart
• Patients who have failed more than one previous treatment
• Patients with enlarged or growing left atrium (larger than 4.5 cm)
Benefits of Ablation Technology to Healthcare Professionals and Patients

Matthew Ginks
Consultant Cardiologist at Oxford University Hospitals NHS Trust

What is catheter ablation?
Catheter ablation is a minimally invasive procedure used to treat heart rhythm disturbances (arrhythmia).
It can be carried out under local anaesthetic with intravenous sedation, or under general anaesthetic. During the procedure, catheters are passed to the heart, usually via the blood vessels at the top of the leg. Catheters are fine electrical wires which can be steered to the desired location in the heart, often using a small amount of X-ray to visualise their location.
These catheters are used to carry out electrical testing to diagnose the cause of the arrhythmia, as well as to deliver treatment.
Treatment is targeted at the area within the heart where the rhythm disturbance comes from and is often in the form of one or more tiny localised burns (using radiofrequency energy) or by cooling the tissue to below freezing (cryoablation) to prevent the arrhythmia from happening again.

How does technology help in catheter ablation?
Over the last decade, there have been huge advances in catheter ablation technology.
Nowadays, 3D mapping systems allow the heart chamber to be recreated on a computer system and the catheters can be visualised to minimise or replace the use of X-ray.

3D mapping systems superimpose electrical information over anatomical reconstructions to localise the origin of the arrhythmia. They facilitate safe and effective treatment by providing information about the degree of contact between the catheter and the surface of the heart and integrating information about the amount of treatment delivered at any site. These mapping systems also help us to be versatile when there is a subtle change in the rhythm or when the patient’s anatomy is unusual, meaning they have become a critical tool for the treatment of complex heart rhythm disturbance.

Who is catheter ablation suitable for?
It is used to treat a variety of heart rhythm disturbances which cause intrusive symptoms. These include SVT (supraventricular tachycardia), AF (atrial fibrillation), atrial flutter and VT (ventricular tachycardia). Typically, medications are tried before catheter ablation, although increasingly it is used as a first line treatment.
Does Relaxation help your AF?

- James, London

Acupuncture originates from China. The practice involves fine needles being inserted into certain points of the body stimulating sensory nerves under the skin and muscles which releases pain relief endorphins. Traditional acupuncture is based on the belief of energy force and normally 12 needles are inserted, and you are left for approximately 30 minutes.

My interest in Acupuncture dates back over 25 years, to a back injury from playing tennis. To relieve pain in the lower back it was suggested I try Acupuncture, I had gone to physios and chiro practitioners, none of them helped me. I went privately and found somebody who eased my pain with the needle. Over the years I have had acupuncture at various intervals. After being diagnosed with AF, I found to my relief it helped my AF. I feel acupuncture slowed me down, which helped my heart rate, along with medication it made me relaxed, also after having treatment, I would sleep that night for over ten hours - it relaxed my system.

Another lifestyle change I have found helps my AF is meditation. Meditation is said to have originated from India, it is also said in the fifth and sixth century from China. In this busy life I meditate at least once a day, it relaxes my mind and calms my body down. I say: "It spring cleans my mind" How I started meditation; I attended a meditation class at a well-known London hotel for 30 minutes which they run Monday - Friday.

Thai Chi is another form of relaxation, it is an ancient form of graceful exercise, it involves a series of movements, performed slowly by deep breathing, it is often performed as a way to fight stress. There are different forms of Thai Chi which originally is from China. I have found it is a great benefit in the natural environment. I have tried this ancient treatment abroad, where the climate is more favourable, where exercise movement helps your body and you to engage with nature. In London, more classes are appearing.

Do any of these ideas help AF? There is no doubt that relaxing can help you; from reading a good book to acupuncture may help some people but not everybody. Many ancient ideas originate from practices abroad in the Far East, they were successful then, why not now?

Help us to help others - share your story

UK Call: +44 (0)1789 867502 or Email: info@afa.org.uk
US Call: +1 (843) 415 1886 or Email: info@afa-us.org
Celebrating 60 Years of the Implantable Permanent Pacemaker

Introduction
One of the great innovations in the past 60 years has been the permanent implantable pacemaker. A spectrum of cardiac devices has been developed from pacing technology. Pacemakers were the first, active, implantable device in the human body (Arzuaga 2014). The invention of the pacemaker has had a significant impact on quality and longevity of life. Pacing treats bradycardias that often present with loss of consciousness. The pacemaker sends an electrical impulse to the cardiac muscle to contract when the pacemaker senses a drop or slowing in the heart beat. This article will look at a brief history of cardiac pacing.

History of cardiac pacing
The history of pacing begins in the 1700’s with the early work by scientist like Galvini who discovered electrical energy caused muscles to move, Volta who discovered metal conducted electricity, Faraday who pioneered electrochemistry and the electrode and Einthoven in the 1800’s invented the prototype for taking modern ECG’s (heart tracing). By 1932 Hyman had built the first “artificial pacemaker”. This used external electrodes and electricity to “resuscitate” the stopped heart. In the early 1950’s, Zoll developed the first full, external pacing system. This could pace the heart on a regular basis. It was attached to the patient with external electrodes delivering uncomfortable electrical stimulus. A large, external box housed batteries and circuitry. The box needed to be plugged in to work and was cumbersome.

Parallel to developing the full, external pacing system, there was another advance which impacted on the urgent need to develop pacing. In the 1950’s, there was an explosion in childrens heart surgery, which often resulted in the need for pacing. A solution was needed to the cumbersome, external pacing system. It was against this backdrop, Aarne Larsen became the first person to have an internal, permanent pacemaker implanted in 1958.

Aarne Larson
Aarne Larsen’s story is an amazing testimony to the history of pacing. Mr Larson was in his 30’s, having, almost, daily black outs. His wife researched and heard about new developments in pacing. Mrs
Larson begged Elmqvist, one of the leading scientists, to trial an implant of the first, permanent, pacing system in her husband. Mr Larson had the implant, having to go back for a second implant the next day. The battery had only lasted 3 hours. With perseverance, and numerous implants over a lifetime, Aarne Larsen became a voice for pacing. The internal, pacemaker implant meant he led a full, and normal life. Over Mr Larson’s lifetime, he had 22 pacemakers, spanning, over the historic developments in batteries, leads and electrodes. He died at the age of 86 in 2001, having lived a full life. Pacing did not just keep a person alive but also improved quality of life.

Since the original implant there have been advances in batteries, leads and programming, improving the functioning and design of the pacemaker. Batteries are crucial for a pacemaker to function. The pacemaker’s power source needs to be stable, and not run down in 3 hours like Aarne Larson’s first pacemaker! The original pacemakers had nickel cadmium batteries, with a number of improvements over the decades (including experimenting with nuclear powered batteries (which were never commercialised). Today’s pacemaker battery life, achieved with lithium, is at least 10 years. Lithium depletes predictably over a reliable time. There is ongoing research to further improve pacemakers’ power source. One current concept is using piezoelectricity. This is an electrical charge generated from motion. Piezoelectricity has the potential to produce energy from the heart’s own beat to power pacemakers. If developed, this would eliminate the need for a battery in the future.

Pacemaker leads communicate between the heart muscle and a pacemaker box. These have been refined over the decades and leads today conduct well, have excellent insulation and are at minimal risk of fracturing. They have the integrity to sustain a lifetime of movement within the beating heart. Nevertheless, leads can move and, even with today’s technologies, can break. One challenge has been to develop leadless pacemakers. Two companies have trialled small implantable, leadless pacemakers. The first human implant was in 2013 (Arzuaga, P. 2014). The device is small, about 1/10th the size of the conventional pacemaker (see picture). The leadless pacemaker is implanted in the right lower chamber with a minimally, invasive procedure. In England, over the few years, the first leadless pacemaker implants have been successfully implanted. Leadless pacemakers are not suitable for every pacing patient. Leadless pacemakers are nonetheless an important and promising development in pacing.
Programming
The original pacemakers had programming allowing the pacemaker to pace the heart at a heart rate of 60 beats per minute only. This did not allow for natural heart beat variation. For example, at night the heart beat would normally lower whereas original pacing programme would keep the heart beat at 60 beats per minute. Modern programming now has a feature which reduces the heart rate at night so people with pacemakers can have a good night’s sleep. Another modern pacemaker programming feature is detecting body motion and increase the heart beat to meet the body requirements. When we are active our heart rate naturally increases to meet the body’s activity requirements. Old pacemaker programmed did not increase the heart beat to meet the demands of an active person with a pacemaker. Detecting body motion means active people with pacemakers lead a good quality of life. The Medtronic Global Heroes webpage has many examples of active pacing patients (http://www.medtronic.com/us-en/about/foundation/global-heroes/2016.html). There is one wonderful story of Michael Shepherd, 51, whose pacemaker revolutionised his life. After having a pacemaker implant, he went on to complete his first extreme marathon in the North Pole last year!

Electromagnetic Interference
Electromagnetic interference, commonly abbreviated to EMI, occurs when an electromagnetic field generates sufficient energy to affect pacemakers. There are electromagnetic fields everywhere with field strengths varying enormously. Magnetic resonance imagining (MRI) has revolutionised imaging of the human body. Most of us will need an MRI at some point in our lifetime. Unfortunately, pacemaker patients are at high risk of electromagnetic interference with an MRI scan. Until recently this has meant people with pacemakers could not have an MRI. There are now MRI safe pacemakers, increasing being implanted, meaning people can safely have MRI scans.

Home Monitoring
Developments in wi-fi have not just improved programming of devices. Monitoring of devices can now be done remotely from patients’ homes (Beck et al 2008). Home, or remote, monitoring, downloads information from a small box in a patient’s home to a secure server. This is then reviewed by a hospital cardiac physiologist, who can bring the patient in, if needed.

There have been developments from the history of pacing which have supported people with heart failure (biventricular pacing), protected people from sudden cardiac death (implantable cardioverter defibrillators) and help clinicians detect heart rhythm disturbances (implantable loop recorders). Pacing has an amazing history, having changed many people’s lives.
Pacemaker and AV-Node Ablation Gave me Back my life
- Anna, London

25 years ago, at the age of 44 I had a mitral valve replacement. It was decided for me to use a plastic and metal one which, unlike a pig’s valve, would hopefully last and not have to be replaced. Fast forward to now, the valve is still working beautifully, however in the interim time I developed atrial fibrillation.

The past five years have not been easy. I was under an eminent electrophysiologist who treated me with a variety of drugs all of which compounded the issue with side effects that were ghastly. Three ablations followed with varying success. Finally, we got to the stage where no further ablations would have any effect and drug treatment was out of the question. My quality of life was pretty much nil, a very depressing thought that ‘this was it’ for the remainder of my days.

And so, the conversation got around to the fitting of a pacemaker with an AV node ablation. Well, if you are reading this because this is the stage you have reached, you can well imagine my thoughts - every single thing and emotion you are feeling, not one, I can assure you, will not have crossed my mind and been dwelt upon in the small hours of the morning, in that you are not alone!

In February 2018, I decided to have it done. The pacemaker was fitted first, followed six weeks later by the AV node ablation. Yes, you will go through mentally wobbly bits, and the pacemaker needed some tweaking but, and this is the joyous part,

I feel marvellous, I have my life back again!

The only medication I take is warfarin, which has been part of my life since the valve was replaced, I rarely give my pacemaker a thought, it is part of me as are my fingers and toes and how fortunate I am to have it. My quality of life is back, my lifestyle is what it was, I travel quite a bit, yoga and pilates are back on the menu too, and most of all, my confidence in myself. I would say to anyone who has been offered a pacemaker, assuming the quality of life was pretty much nil, to take it.

Take courage and push through and perhaps one day you can write about your journey and help another to make a decision which will give them back those joyous days that were a distant memory.

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Mark’s Ablation Dilemma
- Mark, Hertfordshire

I have always been fit and healthy, but in January 2015 when I was 49, I started feeling unwell and experiencing palpitations so went to the GP, who gave me bisoprolol and tests at the hospital. By February I was feeling so bad that even walking short distances left me breathless. I went to the hospital as I was in AF so often and I was told I had a virus that attacked my body, my right ventricle was enlarged, and my gallbladder and liver were inflamed, but worst of all my heart was beating at crazy speeds.

After a week of antibiotics, I had a cardioversion, which put me in sinus rhythm. A week later I had another episode and stayed in hospital for 4 weeks with more antibiotics, I was taking Bisoprolol to slow the heart down, Amiodarone for rhythm control, Rivaroxaban to thin the blood and blood pressure tablets to ease the pressure on the heart.

I could go home which I was pleased to do, but the quality of my life was terrible, I couldn’t even go to the park with my kids without getting breathless let alone train. I experienced real lows during this time.

In May 2015, the Cardiologist told me to stay on the same dose as I was in sinus rhythm, but in June I had another attack and the cardiologist discussed an ablation, so I was sent for a scan and was referred to a specialist who was the first doctor to really explain my options and he really helped me and gave me hope. He put me on the waiting list and slowly took me off all the drugs except the blood pressure ones. I started exercising again and in March 2016, I saw the specialist again, and he took me off the blood pressure tablets, so I applied or a place in the Prudential 100 and was successful, the training of this was riding in excess of 100 miles a week with no AF symptoms.
After another specialist appointment, I decided not to have the ablation as I was feeling good and thought I was cured!

But in February 2017 after returning from holiday, I had another AF attack, I took some Bisoprolol, but my heart rate was still high, so I went to A&E, they offered me a cardioversion, but I refused. I had two more attacks over the next couple of days.

I then had attacks in March, April, May and June and took Bisoprolol for them all, only going to A&E once. In July I decided to go back onto the ablation list and after an echogram, I was prescribed Flecainide. I had my last attack in July, 2 weeks before my ride and took the Flecainide, I took it for a week and then continued my training and have used it a handful of times as a pill in the pocket, it has stopped any full AF attacks, I take it when I feel that feeling you get in your throat/chest before a full blown AF attack and it’s been brilliant. I always use a heart monitor belt when I am training and for the last few weeks kept my heart rate below 140 whilst cycling, hard when you get to hills!

I completed Prudential 100 in 7 hours on the 31st July and raised £2000 for charity. I am back on the waiting list for an ablation but with no attacks in 8 weeks I worry “Should I have it done?”. I have my life back and although I have AF I don’t let it rule my life in the way it did in the beginning.

Following this story, Mark ran the 2018 Virgin Money London Marathon and completed the gruelling 26.2 miles in the baking sun in just under 6 hours, raising a fantastic £1900 for AF Association.

What an amazing achievement, Congratulations Mark and THANK YOU!

Help us to help others - share your story
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Fundraising Champions

After losing his father due to an AF-related stroke, George wanted to do something in his memory, so he ran the Hackney Half Marathon in May and raised more than £1600 for AF Association.

Gordon and his team mates at the Seamons Cycle Club in Cheshire took part in and organised a few rides to raise funds and awareness in July raising over £1000 for AF Association.

Elora from Hertfordshire raised over £200 for AF Association by bravely having her beautiful long hair cut in January. She kindly donated her hair to a charity that provides wigs to children with cancer.

After losing her beloved father to a fatal haemorrhage after just missing out on the left atrial appendage occlusion (LAAO) procedure, Giovani’s daughter, Rosanna decided to set up a JustGiving page to honour his memory. So far, she has raised more than £700! Thank you, Rosanna and the Ferrara family.
A huge thank you to Ian, for running over 120 miles throughout 2018 for AF Association raising over £2600 and awareness of AF all over the country! Ian will be running the 2019 Virgin Money London Marathon for AF Association. You can show your support by visiting his Virgin Money Giving page.

Fundraiser Packs

We want to support all our fundraisers as much as possible, so for everyone who takes part in an event to raise money for AF Association, we will send you a fundraising pack. Each pack will contain sponsor forms, booklets and educational resources, a t-shirt, balloons and a collection box.

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Introduction
This article is going to discuss pain management whilst on anticoagulation medication. People experience pain for a number of reasons and the majority of the time it is short lived and can be managed without having to see a doctor. There are many different medications available without a prescription at your local pharmacy including paracetamol, weak opiates such as codeine and NSAIDs.

Paracetamol:
Paracetamol is a simple analgesic that should always be first choice for pain relief. The exact mode of action is unclear, but it has been widely used for over 50 years. The usual dose is 500mg – 1g (one to two tablets) up to four times a day if necessary. The maximum amount of paracetamol you should take in 24 hours is 8 tablets (4g).

Codeine:
If paracetamol is ineffective, codeine can also be used for pain relief. Codeine is a weak opioid and works by binding to receptors in your brain responsible for transmitting signals to let your body know you are in pain. The usual dose for codeine is 30-60mg (one to two tablets) up to four times a day if necessary. The maximum amount of codeine you should take in 24 hours is 8 tablets (240mg).

Combination Products:
There are also combination products available with paracetamol and codeine/dihydrocodeine (another weak opioid). You may recognise these products as ‘co-codamol’ and ‘co-dydramol’. These products can be used if paracetamol or codeine alone is not sufficient in managing your pain. It is very important that no other paracetamol containing products are taken whilst taking this medication in case of accidental overdose.

NSAIDs:
Non-steroidal anti-inflammatory drugs or ‘NSAIDs’ are another class of pain relief medication with anti-inflammatory properties. They work by inhibiting an enzyme called cyco-oxygensase or ‘COX’ which is responsible for the production of prostaglandins. Prostaglandins are chemicals with a variety of different functions in the body including promoting...
pain, inflammation and the formation of blood clots. Therefore, NSAIDs such as ibuprofen, naproxen and aspirin, block the COX enzyme to stop the formation of prostaglandins to reduce pain.

However, due to the multiple functions of prostaglandins, NSAIDs also reduce the blood’s ability to clot which increases your risk of bleeding. This risk can be further increased if you are taking certain medications such as anticoagulants.

Anticoagulation medication is used in atrial fibrillation (AF) to reduce the risk of AF-related stroke. To find out more about anticoagulation in AF please refer to the factsheet ‘Anticoagulation and atrial fibrillation’. Anticoagulants work in a different way to NSAIDs but they too stop the blood from clotting as easily. Therefore, if you were to take these medications at the same time your bleeding risk becomes even higher.

Internal bleeds can be life threatening due to sudden blood loss causing a drop in the blood pressure and insufficient blood getting to vital organs. This is why oral NSAIDs are NOT recommended for people taking anticoagulants. There are other topical NSAIDs available that you can apply to unbroken skin directly to the affected area to relieve pain. Topical NSAIDs come as gels, creams or plasters. They penetrate the skin and enter tissue or joints to reduce pain in that specific area rather than a body wide affect. Drugs levels in the blood are much lower than with oral NSAIDs which minimises the bleeding risk. Therefore, if you are taking oral anticoagulants, it is safe to take topical NSAIDs.

Conclusion:
Paracetamol, codeine or combination products should be used for the management of acute pain when taking anticoagulation medication. Oral NSAIDs should be strictly avoided because of the increased risk of bleeding due to the combined effects of both medications, unless otherwise advised by your doctor. However, if your pain is isolated to one area/joint topical NSAIDs may be appropriate. If you are on anticoagulant therapy, it is best to tell your pharmacist before buying any medication and they will be happy to advise you what is appropriate.
Connect with us

Social Media

You can always connect with us and other patients through various forms of social media. For instant updates and extra information, follow us:

**UK** Facebook: @atrialfibrillation Twitter: @atrialfibUK
**USA** Facebook: @atrialfibrillationUS Twitter: @AtrialFib_US

You can also connect with us on HealthUnlocked: www.healthunlocked.com/afassociation

Support Groups

For more information about arrhythmia and AF support groups in your local area, please look on our website:

www.afa-international.org

UK call +44 (0)1789 867502
US call +1 (843) 415 1886

To find out about setting up a support group in your area:

UK email: Charlene c.payne@heartrhythmalliance.org
US email: Sharonica s.gavin@heartrhythmalliance.org

Dates for your Diary

- **Arrhythmia Alliance World Heart Rhythm Week**, 3rd - 9th **June 2019**
- **AF Association Patients Day**, 6th **October 2019**
- **AF Association Global AF Aware Week**, 18th - 24th **November 2019**
New Resources

We have worked together with patients to create two brilliant new resources;
- **Preparing for an Ablation**
- **Recovering from an Ablation**

Written by patients, for patients, they will help you to prepare for an ablation, and know what to expect after.

We have also amalgamated some of our more popular booklets to have all information in just three handy booklets;
- **Treatment Options for Atrial Fibrillation**
- **Living with AF and Atrial Flutter**
- **Preventing AF-related stroke**

To download these resources visit: **www.afa.org.uk**

or to request a copy
Call: +44 (0)1789 867502
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WE NEED YOU!

Arrhythmia Alliance World Heart Rhythm Week (A-A WHRW) 2019

Be part of something spectacular this year!

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There are so many ways you can get involved and support A-A WHRW
Help us to raise awareness all around the world by;
· Sharing and displaying our information
· Sending a letter to your MP
· Fundraising
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