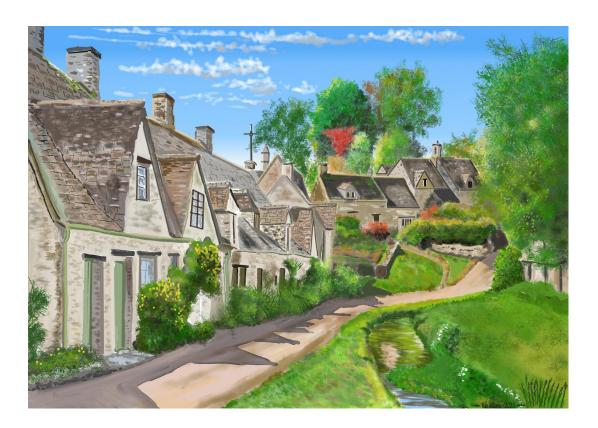


#### For people with Cochlear Implants

Spring 2023

**Issue 77** 



Spring in Bibury, Cirencester



This newsletter has been produced on behalf of the Manchester CICADA Charity

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## Editorial

Welcome to the Spring edition of Resound for 2023.

In this edition we have contributions from several members, unfortunately one of the contributions is from a member now in hospital, but on the mend who is actively researching how the NHS handles people in hospital with hearing needs.

Last issue's article about working with the NHS to improve situations may come in handy!

We will shortly be contacting everyone to get some feedback on new ideas for events so that we can get a summer schedule up and running. There are different items on the list of possibilities including train outings, birds of prey sanctuary visits as well as favourites such as meals and historical visits.

You are more than welcome to send me any ideas email: secretary@manchestercicada.org.uk

or write to the contact address on the back

page of the magazine.

Artificial Intelligence has been a hot topic in the news and will continue to be something to watch and it will be interesting to see how it affects our community. I suspect that there are already elements of AI embedded in the processors helping to improve the quality of hearing in today's noisy environments.

Do visit our website in between issues of Resound as we have regular updates on news, events and links to many helpful websites and organisations.

The link is:

www.manchestercicada.org.uk

We hope you find this issue of some help and if you've any comments, or stories to send along please let me know.

Kevin Williams - Editor

ps. If anyone would like a full size (A3) print of the painting in this or any past issue please let me know.

#### An unfortunate event

#### by Kevin Williams on behalf of John Newton

Accidents can happen around the home at any age although the causes certainly change from tripping over toys to tripping over one's own feet/walking stick etc.

There are a whole host of websites where help is available

for accident prevention around the home and we can list some of them in this article.

However, the other aspect to address is what to do in the event of an accident and what has prompted me to do this on John's behalf in this issue is because he has had an accident requiring major surgery and a stay in hospital.

#### More of that soon.

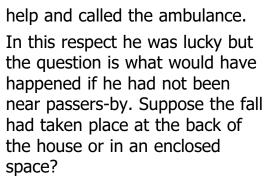
We are, in common with the rest of the world, living longer and an increasing proportion of us are now living alone, which, although it may reduce discussion on which TV program to watch, certainly raises more important issues in the event of an accident.

Of course an accident by its very name is not a planned event, and that was certainly the case for John, on returning to his house from a short walk to his dustbin, he slipped on a wet path.

As he was close to the house and falling towards it he reached out his hand by instinct but was unable to prevent himself from hitting his head on the wall and then falling down outside the kitchen door.

Although he didn't know it at the time he had subsequently broken his shoulder, his hip and cut his head open and was unable to get to his feet.

Fortunately he was within sight of passers by on the street who came quickly to his



An increasing number of us now have mobile phones which we can use to text/phone others but of course in an accident it is more likely that the phone will be out of reach or in another room unless you always have it in your pocket with you.

The other issue within our group of course is that not everyone can use the telephone to talk to the emergency services, relying more on Text/emails which may be difficult to manage after an accident.

The answer may well be the use of personal alarms, which can be supplied by the local council sensory services department. A 'base station' is installed in the house by the council and the user is supplied either with a wrist worn device or a neck lanyard device which simply contains a big red button to be pressed in and emergency. On pressing this, the device, which has a SIM chip in it like a mobile phone, contacts a support operator at the council. They ask over the phone what the problem is and if there is no reply then a Warden is sent round to investigate. Next of kin or support contacts can also be informed as well.

All that is required to set up the service is to provide the council with a key for the warden to gain entry to the property if necessary. The alarm is rented from the council and typically costs around £7.50 per week. If you do have a mobile phone with you, then you have different options, but at times of stress **the less information you have to read** and if you can **avoid having to type** then that would be the best solution. Fortuntely this is possible. The example below is for Apple phones but there are links at the end of the article for Android devices as well.

#### **Apple iPhones**

Use Emergency SOS on an iPhone

With Emergency SOS, you can quickly and easily call for help and alert your emergency contacts. Here's how it works.



When you make a call with SOS, your iPhone will call the local emergency number automatically and share your location information with the emergency services. In some countries and regions, you may need to choose the service that you need. When SOS appears in your iPhone status bar, it means a mobile network is available for emergency calls.

You can also add emergency contacts. After an emergency call has ended, your iPhone can alert your emergency contacts with a text message, unless you choose to cancel this option. Your iPhone will send your current location, and for a period of time after you've entered SOS mode, your emergency contacts will receive updates when your location changes.

On iPhone 14, you can even use Emergency SOS via satellite to text the emergency services when no mobile and Wi-Fi coverage is available.

#### Call the emergency services

To make the call on iPhone 8 or later:

1. Press and hold the side button and one of the volume buttons until the Emergency SOS slider appears.

2. Drag the Emergency Call slider to call the emergency services. If you continue to hold down the side button and volume button, instead of dragging the slider, a countdown will start and an alert will sound. If you release the buttons after the countdown, your iPhone will call the emergency services automatically.

To Make the call on iPhone 7 or earlier:

1. Press the side (or top) button five times rapidly. The Emergency Call slider will appear.

2. Drag the Emergency SOS slider to call the emergency



services.

After the call has ended, your iPhone will send your emergency contacts a text message with your current location, unless you choose to cancel. If Location Services is turned off, it will turn on temporarily. If your location changes, your contacts will get an update and you'll receive a notification about 10 minutes later.

On iPhone 14 and iPhone 14 Pro models, your phone can call the emergency services and send a message to your emergency contacts when a severe car crash is detected.

But what if you don't have your phone nearby?

#### **Emergency SOS on your Apple Watch**

(Note an Apple watch remotely connects to your iPhone and uses the information stored on the iPhone in the call, such as Emergency contacts etc.)

With Emergency SOS, you can quickly and easily call for help and alert your emergency contacts from your Apple Watch.

Here's how it works

When you make a call with Emergency SOS, your Apple Watch automatically calls local emergency services and shares your location with them.

When the call ends, your Apple Watch will send your emergency contacts a text message with your current location, unless you choose to cancel. For a period of time after you've entered SOS mode, your emergency contacts will receive updates when your location changes. You set up such things as emergency contacts and medical info that could help emergency services separately on your phone from the settings app.

Emergency SOS requires a mobile connection or Wi-Fi calling with an internet connection from your Apple Watch or nearby iPhone.

#### How to call the emergency services on your Apple Watch

1. Press and hold your watch's side button (the button below the Digital Crown) until the Emergency Call slider appears.

2. Drag the Emergency Call slider to start the call immediately or you can keep holding the side button, then after a countdown your watch will call the emergency services automatically.

If you have an Android phone (anything other than an Apple) then similar services are also provided.

This is the link for setting up Android phones

#### Android Emergency info

A little planning in advance and maybe getting help with the setup from the shop or a friendly tech head ;) may well pay off.

The real answer would be to try and avoid accidents in the first place, but that's easier said than done of course!





### Tinnitus and migraine: What is the link?

Kickstarting the brain's natural ability to adjust to new circumstances, or neuroplasticity, improves how effectively a cochlear implant can restore hearing loss, a new study in deaf rats shows. The investigation, researchers say, may help explain the extreme variation in hearing improvements experienced by implant recipients.

Tinnitus is a condition that causes a highpitched ringing in the ears. Some people experience tinnitus during migraine episodes. A history of migraine is also a risk factor for independent tinnitus.

Migraine is a neurological condition that can cause headaches, nausea, and aura. Aura refers to sensory changes that some people with migraine experience as an episode begins. They can include auditory changes, such as ringing in the ears.

This means that, for some people, temporary ringing in the ears may be the result of migraine rather than being a separate condition.

However, some evidence suggests that people with migraine may also be more likely to develop tinnitus that affects them outside of a migraine episode. They may also be more likely to develop hearing loss.

Tinnitus also commonly occurs in people with other types of headaches and may increase the extent to which headaches reduce quality of life.

## Is there a link between tinnitus and migraine?

Migraine is a neurological condition that causes moderate-to-severe headaches alongside other symptoms. Tinnitus is also often neurological in nature. The two conditions appear to have links, but researchers are still learning about the connection.

There are several possible connections between tinnitus and migraine. Tinnitus could be:

#### **Migraine aura**

Tinnitus and other auditory sensations can occur as migraine aura, which are sensory changes that around 25% of people experience before a migraine headache.

If the tinnitus is a migraine aura, it will typically last between 5–60 minutes before improving. Other types of aura can also affect vision, taste, and skin sensations.

As a migraine aura, tinnitus may occur alone or alongside other symptoms. For example, someone might experience tinnitus and visual changes, such as seeing spots.

Tinnitus can also occur in people with brainstem aura, which is rare. Doctors previously called this basilar migraine.

#### Migraine comorbidity

Comorbidities are health conditions that occur together. Research suggests that people with tinnitus may be more vulnerable to migraine, or vice versa.

This may be due to the trigeminal system becoming more sensitive, causing both

conditions. The trigeminal system includes the trigeminal nerve, which runs from the ear toward the eyes, nose, and jaw. It is involved in migraine pain.

Other shared risk factors could include neck pain or temporomandibular joint (TMJ) disorder.

#### **Migraine complication**

One theory about the link between tinnitus and migraine suggests that migraine itself could cause pulsatile tinnitus (PT) by altering blood vessels in the head. PT is when a person can hear sounds that follow the rhythm of their pulse.

An older 2016 study found that 1.9% of the 1,204 participants had PT and that treating the migraine also improved tinnitus symptoms. However, more research on this is necessary, as only a small number of people in the study experienced both migraine and PT specifically.

#### **Migraine trigger**

Some people with migraine can identify specific triggers that cause their symptoms. People can have different migraine triggers — certain sounds may be one type of trigger for some individuals. However, other types are more well-known, such as:

- stress
- hormonal fluctuations
- certain foods
- sleeping more or less than usual
- bright light

# Link between tinnitus and other types of headache

Tinnitus does not only have links with migraine. People with tinnitus are more likely to report headaches in general than the rest of the population.

#### Cluster headache

A cluster headache is a type of neurological headache that usually affects just one side of the head. Although tinnitus is not typically a symptom of cluster headaches, people who report tinnitus are more likely to experience cluster headaches.

#### **Tension headache**

A 2017 study on tinnitus and headache found tension headaches were less common in people with tinnitus than migraine. The findings showed that 13% of the sample reported experiencing tension headaches.

#### **Referred pain**

Referred pain occurs when a problem in one area of the body causes pain in a different area. Sometimes, this can result in headaches and may have links with tinnitus.

For example, people with TMJ disorder, which affects the jaw, may be more likely to experience tinnitus.

#### **Other headaches**

In the 2017 study, 33% of people who reported tinnitus and headache had unclassifiable headache types. This means their symptoms did not meet the criteria for any specific headache disorder.

People may experience tinnitus as a complication of many conditions that cause

headaches or other neurological symptoms, such as vertigo.

#### Tinnitus and migraine: What is the link?

When tinnitus is a symptom or complication of migraine, migraine treatment may help with both conditions.

An ongoing clinical trial is testing the effectiveness of migraine medications for tinnitus. Results of the study are due in late 2022.

Additionally, an older 2016 study found that treatment for migraine helped people who also experienced PT. However, this only applied to 11 out of 16 participants with both conditions.

Larger-scale trials will help scientists understand if migraine medications can help with tinnitus and, if so, which ones work best.

#### What else causes tinnitus?

Almost everyone experiences tinnitus at some point, but it becomes a long-term issue for some people. Several factors can contribute to this:

**Noise trauma:** A person living or working in a noisy environment may experience hearing loss within a certain range. If they develop tinnitus, they may hear a noise that is within that range. For example, if a person works around noisy machinery, they may hear ringing that is at the same pitch.

**Medication:** Some medications, such as high doses of aspirin, can cause tinnitus as a side effect. The tinnitus may stop if a person stops taking the medication. People should only do this with a doctor's supervision.

**Metabolic diseases:** Heart disease, diabetes, and hypertension have associations with tinnitus.

**Ear diseases:** Conditions such as Meniere's disease cause issues in the ear itself. The symptoms include dizziness, vertigo, and tinnitus. Lesions that affect the eighth cranial nerve may have a similar effect.

**TMJ disorder:** This is a disorder of the jaw joint that may lead to anatomical changes inside the ear, resulting in ringing.

#### Summary

Tinnitus and migraine can occur together. People with migraine appear to be more likely to have tinnitus, and people with tinnitus often report migraine and other headache disorders. Tinnitus itself can be a symptom of migraine if a person experiences ringing in the ears as a temporary aura.

Doctors do not fully understand the relationship between tinnitus and migraine. Research into these neurological conditions is ongoing. In the meantime, some people may find that effectively treating or managing their migraine helps lessen tinnitus symptoms or improve their quality of life.

Last medically reviewed on October 4, 2022

Medically reviewed — Updated on February 16, 2023

## Haigh Hall, Wigan race for life 17th May 2023

Some of you may know that Lynn Grimshaw, a CICADA member and serves on the EC , has for some time now been helping various charities raise money for Cancer research following her experience of it recently.

This event is the latest where she had put her jogging shoes on and got involved.



All smiles at the start ...



Another medal for the collection..



I did it 3k jogging!

"I jogged the majority of the course, and going up hills I fast walked, (not quite got the hang of jogging up hill yet but I will), then the last 1k I ran to the finish line just over 19 minutes. Yeah."

Having completed this event and she is now due to do some more events,

MUDDY Race 5k Warrington on 11th June (really not sure what's involved here but it sounds messy!) and Shine Walk for cancer Research on 13th October 10k walk

Well done Lynn, keep up the good work!

## Google to Work with Leading Hearing Australian Researchers for New AI and Machine-Learning Solutions

A partnership between five of Australia's leading hearing healthcare organizations aims to customize technology and improve accessibility for people with hearing loss







MACQUARIE University The Shepherd Centre Civing deaf children a voice



Published 21 March 2023

Google has announced it will be teaming up with five of Australia's leading research organizations to explore new ideas for applying artificial intelligence (AI) and machine learning to challenges in listening and communication for people with hearing loss.

The partnership, part of Google's Digital Future Initiative, involves the National Acoustic Laboratories (NAL), Cochlear, Macquarie University Hearing, NextSense, and The Shepherd Center. These organizations will be undertaking projects on how AI and machine learning can pave the way for more customized hearing healthcare.

Researchers from NAL, Cochear, Macquarie University Hearing, NextSense, and the Shepherd Center will join Google in focusing on new hearing healthcare applications involving AI and machine learning.

The agreement is a multi-year collaboration. Research teams will evaluate new methods, such as machine learning, big data, speech enhancement, cloud computing and neuroscience to improve and develop hearing technologies and strategies, according to Cochlear Ltd. It brings together expertise and resources from hearing, research, technology, academia, government, healthcare and information sciences sectors.

Australia and a world-first hearing collaboration announced with Google

Australia has long been a center of hearing healthcare research. For example, the modern cochlear implant, bone-anchored hearing systems, and many clinical protocols for their use have been developed in Australia.

NAL has set global standards to assess hearing impairment, developing hearing healthcare innovations and the most widely used prescription software by audiologists in the world today.

NextSense has one of the world's largest and most established cochlear implant programs and helped pioneer telepractice in this area.

According to Google, the partnership's first project seeks to personalize hearing models to better address individual listening needs to enhance hearing aids and other listening devices. This technology could be particularly beneficial for people using listening devices in complex listening environments, ranging from busy restaurants to live music performances. The overlapping sounds in these settings can make listening, enjoying, and hearing understanding difficult or impossible for people with hearing loss.

The project will explore new applications of AI to better identify, categorize and segregate sound sources, making it easier for people using assistive listening devices to follow a conversation or activity as the technology could help to prioritize sounds, such as a person speaking—and filter out others, such as background noise. Leading the effort for Google will be Simon Carlile, a distinguished world leader in this field, as he returns to join Google Research Australia.

Google says it is committed to making the world more accessible for people with deafness or hearing loss. Over the years, the company has launched a range of accessibility tools on Android, including Live Transcribe, Lookout, Sound Amplifier, Live Caption, and new improved TalkBack.

Source: Google

### News from Med-El

#### **Direct Streaming to MED-EL Cochlear Implant Systems**

The possibilities for cochlear implant users to stream their favourite music and shows directly from their latest devices are growing every day. Most recently, Amazon Fire TV updated their services so that people who use hearing aids and cochlear implants can benefit from a range of accessibility features to help them increase their streaming enjoyment.

#### Information for MED-EL users:

MED<sup>©</sup>E

• Using the AudioStream for SONNET and SONNET 2, MED-EL cochlear implant users can stream sound directly from their Amazon Fire TV Cube

• The Audio Streaming for Hearing Aids (ASHA) and Made for iPhone protocols are integrated within MED-EL's AudioStream cover, making streaming from the latest technology possible now and in the future

• MED-EL constantly tests and publishes the streaming compatibility of all audio processors against a wide range of mobile phones, tablets, and streaming devices.



For more information, visit our online streaming compatibility database, which is regularly updated:

https://www.medel.com/hearing-solutions/accessories/connectivity/audiostream#compatibility To read our recent blog `The Ultimate Guide to Streaming with MED-EL Devices' please visit our website:

https://blog.medel.com/the-ultimate-guide-to-streaming-with-med-el-devices/

#### **RONDO 3 - Off the Ear Audio Processor**

Are you considering a cochlear implant, or due an upgrade of your existing audio processor?

Introducing RONDO 3 Audio Processor for SYNCHRONY 2 cochlear implants

RONDO 3 is incredibly simple, with wireless streaming, wireless charging, and superior hearing performance. Providing the user with simple hearing all day, every day, it's simply an incredible audio processor. This all-in-one design makes RONDO 3 both highly



durable and user friendly for all ages.

With no cables, no changing of batteries, RONDO 3 is light, extremely slim and charges wirelessly. Charge overnight, or charge it on the go, there's no downtime and no disposable batteries. Simply place it on the inductive charging pad, and RONDO 3 will recharge automatically!

Worn completely off the ear, RONDO 3 is perfect for those who wear glasses, and with the S-vector magnet, which offers 25% more retention force than its predecessor, it is optimised to stay securely in place, helping to ensure that the audio processor won't fall off, which is especially beneficial for those who enjoy sports or have an active job.

With over 30 design covers to choose from, you can blend RONDO 3 perfectly by matching your hair colour or stand out with striking patterns and designs.

#### **MED-EL UK are Going Green!**

To find out more information on RONDO 3 visit our website by clicking HERE Climate change is currently a hot topic, and everyone must play their part to drive change. MED-EL UK are committed to reducing their carbon footprint and as such, have already implemented various green initiatives. Protecting and restoring nature provides an effective solution to combat climate change. With that in mind... an idea was planted! In April 2022, the first MED-EL Miracle Trees were planted in South Africa, with a pledge to plant a tree on behalf of every UK & Ireland cochlear implant recipient to help grow a better and brighter future.

Various aspects of MED-EL UK's business have also had a green overhaul. A subsidised cycle-to-work scheme is offered as well as providing the sales team with eco-friendly electric vehicles. From a product distribution perspective, boxes are actively recycled,

and paper tape and paper jiffy bags are used instead of plastic on all packaging.

Everyone can help make a difference!

Hearing device users are encouraged to utilise the MED-EL recycle boxes supplied to clinics by dropping off their used equipment such as processors, magnets, and cables etc.

# Do you have any unused, unwanted, or broken equipment?

If so, you can send the items back to us by using our free-post labels. To request your free-post label simply email our customer services team at customerservice@medel.co.uk

For more information on our initiatives, please scan the QR code or visit our website: www.medel.com/en-gb/about-medel/united-kingdom/goinggreen

### The History and future of Cochlear

Implants by Tony Spahr

Hearing is the only sense that can be replicated through a medical device. This is accomplished through electrical stimulation of the auditory (hearing) nerve using a device called a cochlear implant. This life-changing technology has rapidly developed from its humble beginnings of providing basic sound, to helping people live richer and fuller lives through the connections that come with conversation, music, and laughter.

Many of us who have enjoyed a career in the field of cochlear implants have had a unique opportunity to meet our heroes and build upon their work.

We have seen these devices bring the joy of hearing to infants and adults, and we have witnessed the life-changing benefits of this technology.

Having been inspired by the innovation of the past, we view it as our responsibility and privilege to continue bringing better hearing to even more people in the future.







#### In the beginning

The ability to use electric stimuli to produce an auditory sensation was first described by Alessandro Volta in the early 1800s. But it wasn't until 1957 that André Djourno and Charles Eyriès intentionally stimulated the auditory nerve to provide hearing sensation to patients who had undergone major ear surgery in France. They used hand-spun electrodes placed at the stump of the hearing nerve to produce sound. The electric signal from the device was able to reliably produce the sensation of sound, and patients could even differentiate between on/off and soft/loud. However, patients weren't able to differentiate different pitches or understand speech.

Unfortunately, there were complications with the devices, and the researchers abandoned the project.

They used hand-spun electrodes placed at the stump of the hearing nerve to produce sound.

In 1961, word of the French experiment reached William House, an American surgeon. Together with Jack Urban, an engineer, House developed and tested the first cochlear implant system. It included a single electrode, placed inside the cochlea, and a wearable sound processor. While there were a number of limitations associated with this device, recipients were able to hear sound and demonstrate an improvement in speech understanding with visual cues. These results inspired several surgeons, engineers, and researchers to explore the potential to restore hearing through controlled electrical stimulation within the cochlea.

#### Implant technology today

In the 60 years since William House and Jack Urban proved out the concept of their single-channel cochlear implant, we have seen rapid and continuous improvement in these devices. Cochlear implants are now designed with more electrodes, which stimulate different places in the cochlea and provide the listener with a wider range of pitch perceptions. Electrical current delivery is far more controlled, so these electrodes can work together to provide "virtual channels" for more detailed pitch. The precise control also helps to improve loudness percepts.

Today, there are cochlear implant recipients ranging in age from under 12 months to over 90 years.

Cochlear implant technology is not only safe, but it has given countless people the opportunity and confidence to participate in social and professional environments, where communication is so important. The field has moved from simply providing auditory perception (hearing sound) to an expectation of understanding speech in complex or noisy listening situations.

The original devices were only prescribed to adults with profound hearing loss in both ears. Today, there are cochlear implant recipients ranging in age from under 12 months to over 90 years. Many of these recipients still have some residual hearing, but they do not receive significant benefit from hearing aids. Thanks to advancements in electrode design and techniques for monitoring the hearing nerve during surgery, surgeons are now better able to preserve hearing. These recipients experience a combination of electric stimulation through their implant and acoustic stimulation through their natural hearing, and are able to achieve very high levels of speech understanding. They report a fuller, richer sound quality.

#### Modern sound processors

Just like the internal implant, the externally worn devices that detect and process sound have gotten smaller and more powerful over time. CI sound processors have gone from belt-worn devices to a size comparable to hearing aids.

They are controlled by powerful microprocessors that recognize the environment and activate and adjust features to improve the overall listening experience in different situations. With the introduction of Bluetooth®, they can also be paired with your phone, computer, or other tablet to provide a personal and private listening experience.

For patients who have no useable hearing in one ear and some in the other, bimodal solutions, which permit hearing through a hearing aid in one ear and a cochlear implant in the other, have proven to be more beneficial than using a single device. The most advanced cochlear implants have caught up with hearing aid technology, featuring the same sound processing and functionality, allowing them to work seamlessly with compatible hearing aids together as a pair in such bimodal fittings.

#### More to come

As we look to the future of cochlear implants, millions of dollars are being invested each year to make them an even more powerful and effective treatment option. These efforts include how to better preserve neural structures of the inner ear through electrode design, and how to bring a more natural hearing experience by networking devices worn on both ears. We're also working on ways to improve the hearing experience through artificial intelligence and new signal processing algorithms, and developing app-based remote controls and virtual office visits to improve the user experience

Through these investments, we see an even brighter future for cochlear implant recipients. We see a world where hearing is effortless, and people enjoy a life without limitations.

### Notes

We would welcome any feedback or suggestions for events, articles for Resound especially if you have been through a situation and have come through it and have knowledge that might help others.

Either email secretary@manchestercicada.org.uk

Or write to me at the address below, all submissions are welcome.

#### CICADA

Website:www.manchestercicada.org.uk

Facebook group:Manchester CICADA club

Secretary direct contact:Text 07533217730

Main contacts for Cicada listed at the bottom of this page.

#### **Manchester Implant Centre**

The Richard Ramsden Centre for Auditory Implants,Peter Mount Building, Manchester Royal Infirmary, Oxford Road,Manchester, M13 9WL

Main Contact Details: TeL: 0161 701 6931 ( Appointments) TeL: 0161 276 8079 (repairs and spares)

\* Please check the website regularly for updates on what the clinic are doing in the light of the virus outbreak.

http://www.manchestercicada.org.uk/implant-clinic/

#### **National Support organisations**

British Tinnitus Association: https://www.tinnitus.org.uk/ Hearing Link: https://www.hearinglink.org/ RNID (Action on Hearing Loss): https://www.actiononhearingloss.org.uk/ Disabled Travel Advice: http://www.disabledtraveladvice.co.uk/ Meniere's Society: http://www.menieres.org.uk/ National Deaf Children's Society: http://www.ndcs.org.uk/ National Association of Deafened People (NADP): http:// www.nadp.org.uk/

#### **Equipment Suppliers for Deaf People**

Sarabec: https://www.sarabec.com/ Connevans: http://www.connevans.co.uk Hearing Link UK: https://www.hearinglink.org/ RNID (Action on Hearing Loss): https://www.actiononhearingloss.org.uk/

#### Accessory help

The accessory help page has links to videos about how to connect your processor to different accessories, such as remote microphones, TV support etc. that may be supplied to you by the implant centre. Also if anyone is going into hospital and wants one of the Hearing support cards to show staff how you prefer to communicate then please let me know.

If you have printing facilities then the card is in PDF format at this link at the bottom of the page:

https://www.manchestercicada.org.uk/accessory-help/

If you need a laminated copy write to me or email at the link below.

#### Chairman

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