

# Sound Sense

Issue 4

## Inside this issue

- What is noise?
- Recycle your hearing aid batteries
- VERVE hearing systems
- Do you know? - some facts about hearing loss
- Listen to us - don't put cotton buds in your ears

## Epoq is about getting the most out of life

Peter has just come back from a workshop in Oxford, England where the very latest technology developed by Danish hearing aid manufacturer Oticon has been released – Oticon Epoq.

Hearing Aids went digital ten years ago and this paved the way for significant improvements in the way we amplify sounds and address hearing losses. But there are some challenges which have not been fully dealt with up to now.

The most pressing of these are:

- Keeping up a normal conversation in a noisy environment
- Locating where sounds come from
- Absorbing and making use of the vast variety of sounds in our daily lives
- Making use of a mobile phone without distortion or interference.

With the introduction of Epoq these challenges are now significantly reduced and according to Oticon President Peer Lauritsen, the technological innovations of Epoq represent a movement as significant as the movement from analog to digital signal processing in hearing aids.

Epoq enhances your natural connection to the world around you by becoming an interface between you and your soundscape. Epoq brings you the vast array of environmental sounds – not only those close by but also those transmitted by modern electronic sources such as mobile phones, MP3 players, computers and more, all of whose output can be transmitted directly to your hearing aids.



Significantly where two hearing aids are worn both aids communicate with each other in real time i.e. simultaneously without a delay and furthermore there is minimum battery drain.

Some features you will experience with Epoq are:

- Less confusion and disorientation enabled through a new technology – Spatial Sound which makes it easier to identify where a sound originates.
- Focusing on relevant sounds so that when you wear a pair of Epoqs they function as one central processor maintaining proper stereophonic sound.
- Knowing the difference between talking and listening as the new "My Voice" feature ensures continuity; when you stop talking and others start, you will be able to hear them more clearly straight away rather than waiting for the hearing aids to find a new listening balance.
- Enjoyment of minimal feedback. In addition, when listening to music the stereo anti-feedback system will no longer be triggered to think that "feedback" is present when in fact there isn't any at all.
- Mobile phones and Epoq go hand in hand with the Streamer function. Streamer uses the universal standard Bluetooth technology to talk to mobile phones making it possible to stream conversation to both ears simultaneously resulting in a clear transmission of the signal.

We are one of the first practices in Ireland to introduce Epoq and should you need further clarity or information on this or any other hearing system do not hesitate to contact us.

## What is noise?

Noise is unwanted sound. Its intensity or loudness is measured in decibels (dB). Normal conversation is about 65dB and somebody shouting typically can be about 80dB. The difference is only 15dB but because the decibel scale is logarithmic a 3 dB increase in the sound level represents a doubling of the loudness, thus shouting is 32 times as intensive as normal conversation.

### What problems can noise cause?

Exposure to noise may pose a variety of health and safety risks.

### Hearing loss

Excessive noise damages the hair cells in the cochlea, part of the inner ear (snail shaped organ of hearing), leading to loss of hearing. According to the World Health Organisation noise induced hearing loss "is the most prevalent irreversible industrial disease". It is estimated that the number of people in Europe with hearing difficulties is more than the population of France.

### Physiological effects

There is evidence that exposure to noise has an effect on the cardiovascular system resulting in an increase in blood pressure levels and is also associated with stress.

### Increased risk of accidents

High noise levels make it difficult for staff to hear and communicate, increasing the probability of accidents.



low  
level  
noise

### Work related stress

Work-related stress rarely has a single cause, and usually arises from an interaction of several risk factors. Noise in the work environment can be a stressor, even at quite low levels.

Other sources of potentially damaging noise include chainsaws, trimmers, ride-on-lawnmowers, shooting and loud music. Protection is advisable using ear muffs or custom made noise plugs. We can fit custom made noise plugs here in the clinic which those of you who have been fitted find comfortable and effective.

A European directive on noise came into force in all Member States in February 2006. These regulations lower the limit on a wide range of workplace noise. Further information is available from the Health and Safety Authority either by phone at 1890 289 389 or logging on to [www.has.ie](http://www.has.ie)

## Recycle your hearing aid batteries

We all need to think about making our environment a little greener. We try to help by recycling all the hearing aid batteries we use here in the clinic. You can return your used hearing aid batteries to us for recycling if you would like us to dispose of them for you.



Photo courtesy of NASA and the NSSDC

help  
save  
our  
planet

So just drop in your used batteries to us at your convenience.

We still find that Rayovac Ultra Proline hearing aid batteries are the most efficient and reliable on the market. At €6.00 for a double pack of 12 they represent good value. If you cannot come in to us we will send them to you.

Just telephone Margaret Kennedy our receptionist and she will post them out to you. There is not a charge for postage when three or more double packs of batteries are being despatched.



## A Steinway that fits behind your ear

Hearing Excellence created by Phonak and Steinway & Sons

We are delighted to have been asked by Phonak of Switzerland to be part of a select group of hearing aid audiologists chosen from around the world to fit the newest and most exclusive hearing aids available – VERVE.

Phonak has long been recognised as the visionary Swiss hearing technology group who set world-wide standards in the provision of hearing care. VERVE may be considered as the dawn of a new era in hearing solutions providing outstanding product quality with a premium service.

The VERVE Steinway Edition Hearing Aids are the result of the collaboration of Phonak and Steinway & Sons to introduce a premium hearing system. This special edition of Phonak's most deluxe hearing solution is extremely small, elegant and discreet, and includes the most sophisticated service offering available. It is what the compact disc was to the gramophone record: a true quantum leap.



hearing aids  
that speak

"Phonak and Steinway perfectly compliment each other in their desire to enable natural hearing experiences of the highest quality" says Phonak Chief Executive Officer Valentin Chapero Rueda. Both companies shared values and common drive is to deliver beautiful hearing aids that produce the very best sound quality.

- Passionate about state-of-the-art technology VERVE hearing aids are the first to speak. VERVE uses clear spoken messages to deliver information using *SmartVoice* technology. For instance you will be notified when your hearing aids need to be serviced or the microphone protectors need changing. It will alert you when it is time to change your batteries.

- VERVE's *Self Learning* is the first hearing system that learns! As you wear VERVE, it will adjust and correct itself based on your interaction so for example changes to loudness preferences in a variety of situations are recorded by the aids and automatically applied. This can eliminate the need for repeated adjustments.
- Advanced *AutoPilot* technology in VERVE effectively addresses some of the most commonly challenging listening situations such as background noise and suppresses these interfering noises regardless of the direction or intensity of the sound.
- *SoundCleaning* is another vital step in balancing clarity of speech and hearing comfort. This innovative feature scans the environment you are in to identify and remove disturbing components such as echo, machine or wind noise resulting in unprecedented convenience.



The priority service package supplied with VERVE includes a personalised VERVE membership, an international support line available 24 hours a day, 7 days a week providing basic technical support or will arrange an appointment at the closest VERVE Certified Fitting Center. Also an online portal – [verve.phonak.com](http://verve.phonak.com). will provide a similar service and is particularly useful if you are traveling. A five year warranty plus five years supply of batteries come as part of the VERVE service.

Verve is only available at VERVE Certified Fitting Centers. The technologically advanced VERVE requires us to undergo specialist training and an advanced certification program has been designed to ensure that you will receive the highest level of personalised hearing care and technical competence. Also, like all our patients, VERVE wearers will have ongoing support and personal attention from either Peter, Margaret or our receptionist Margaret.

Our long established practice has always been recognised for it's quality personal service, state-of-the art equipment and premium technologically innovative solutions to hearing loss and its associated problems.

If you would like to further discuss the VERVE Steinway Edition hearing aids please contact us and we will be happy to advise you accordingly.

## Do you know?

- The most common causes of hearing loss are long-term high noise exposure and ageing.
- Hearing loss is second only to arthritis as the most common complaint for those over 50.
- People with hearing loss wait an average of six years before seeking professional advice. 50% of people who could benefit from hearing aid technology are not using it.
- More people than ever are experiencing hearing loss when they are younger.
- Only about 12% of hearing losses are helped by surgery or other medical treatments such as wax removal.
- Daily exposure to loud noise is considered hazardous. That would typically include – ride-on lawnmowers, aircraft engines, power tools and music.



## Listen to us - don't put cotton buds in your ears

If you are tempted to poke inside your ears with a cotton bud, remember that each year many people attend hospital with injuries cause by these harmless looking implements.

Lots of people use cotton buds to “clean” the ears, not realising that the ears have their own internal cleaning mechanism. A small minority of people do produce unusually large amounts of earwax. If your ear canals keep getting clogged, you may need to see your doctor occasionally to have it removed.

The ear is the organ of hearing and balance and the first specialised organ to develop during foetal life. The human ear consists of three parts: outer, middle and inner ear. The ear canal is part of the outer ear and fats and oils are secreted along the canal which protect the ear and trap any particles that enter it. Mixed together this forms wax that is transported from the ear by lots of little hairs functioning like a conveyor belt. Wax can be white to brown colour, dry to wet in consistency and varies from person to person.

If used to clean the ears, cotton buds may push the wax deeper into the canal, rather than removing it. As a result, wax blockage can occur which may give a blocked sensation, cause a ringing sound (tinnitus), vertigo, and sometimes pain.



don't!

Ear buds may also cause trauma to the canal wall skin resulting in inflammation of the outer ear. If used for irritation or itchiness in the ear, they can cause injury to the ear canal and prolonged use can lead to chronic thickening of the skin and chronic itchiness which can be difficult to treat. If used to remove ear discharge cotton buds may not fully absorb the discharge and can push thick pus deeper into the ear canal, possible reducing the efficacy of ear drops.

You can wash the external ear with a cloth over your finger but do not insert anything into the ear canal. So please remember not to use cotton buds in your ears – you may do more damage than you realise by using them.