

Sound Sense

Issue 1

Inside this issue

- Causes of hearing loss - Ménière's Syndrome
- Stem Cell Research
- Fresh air for my ears
- How to stop that embarrassing whistle
- British/Irish Societies of Audiology Annual conference in Cork
- Batteries



Savia by Phonak

The greatest revolution since the introduction of digital technology

The introduction of digital technology has been a milestone in hearing instrument innovation. The resulting products have truly improved the communication abilities of hearing impaired people. Present day digital hearing aids have the processing power of a Pentium 4 computer!

Savia by Phonak provides a complete hearing system for individual hearing solutions. Savia packs more than 6,000,000 transistors into a chip the size of a match-head and these chips are the horsepower behind the most advanced digital system in the world. This is the best performing microchip presently available.

Since wearers have different hearing losses and hearing preferences, the revolutionary performance of Savia is accessible via a wide variety of hearing aids and feature options. The Savia family has nine members in total, six In-the-Ear (ITE) models and three Behind-the-Ear (BTE) instruments. A remote control may be used with any of these hearing aids.

What is unique about Savia?

There are ten new developments in hearing aid technology which can be grouped into the following:

- Auto Pilot – recognises several sound environments. Once identified the correct listening programme is selected automatically! This results in excellent audibility, comfort and speech understanding in an infinite number of listening situations.



- Auto Focus – Auto focus helps locate the sound source and suppress disturbing noise.
- Sound Cleaning – This feature address obstacles such as wind noise and echo and perfects listening comfort and speech understanding.
- Fitting – Advanced hearing aid fitting software allows the hearing aid audiologist match your specific needs and preferences to your hearing aid.
- Data Logging – Savia records and stores your personal use and listening preferences. Never before has this facility been available and it allows your hearing aid audiologist make adjustments that suit your individual preferences.

Savia hearing aids are a premium aid. Cutting edge science and technology combined with detailed analysis and evaluation of wearer's preferences and expectations allows Savia to make a substantial improvement to the quality of life of individuals.

If you would like to discuss the Savia or any other hearing aid systems with us please do not hesitate to contact us.

Causes of hearing loss - Ménière's syndrome

In this series about the different causes of hearing loss we look this time at a fairly rare but quite traumatic condition known as Ménière's Syndrome. This is an affliction of the inner ear with disturbances to both its functions - hearing and balance.

Typically the patient has attacks of fluctuating hearing loss associated with a feeling of fullness in the ear and tinnitus (a ringing, hissing sound). These symptoms may be accompanied by dizziness which can be severe enough to cause the patient to fall and to vomit. The condition, which is thought to occur in approximately 150 persons per 100,000, is believed to be associated with stress in some cases.

The syndrome is associated with high fluid pressure in the cochlea (the site of the hearing and balance mechanism) which causes the feeling of fullness, the accompanying hearing loss at low frequencies and intolerance of loud sounds. An 'attack' causes a sudden onset of dizziness which can last from 20 minutes to several hours and may be accompanied by nausea and sweating. The patient does not lose consciousness and the attack can occur at any time - perhaps during sleep. Even when the dizziness has passed the patient may continue to feel unwell with poor balance, often for the rest of the day.

There is no specific pattern to the disease. Some sufferers have only one or two attacks per year while others have periods of frequent attacks for weeks or months followed by periods of remission. In the most serious cases patients may be seriously incapacitated, becoming housebound and unable to work.

With the onset of Ménière's Syndrome, sounds become distorted with a 'tinny' quality. When hearing diminishes during an attack in the early stages of the disease it will usually return within a few hours. Treatments usually include anti-vertigo and anti-nausea drugs and sufferers are encouraged to follow a low-salt diet as this can reduce pressure in the inner ear. If this fails to control the symptoms then a surgical procedure may be considered - however, this could carry other risks. There is no way of preventing the syndrome as the cause is not known. Should you ever start to experience dizzy spells together with periods of hearing loss and tinnitus you are advised to seek immediate advice from your GP.



Dr. Prosper Ménière

Vertigo

Stem cell research

We are not qualified to offer an opinion as to the rights or wrongs of stem cell research, or animal experimentation, but one of our speakers at a recent conference in Droitwich in the UK is researching hair cell regeneration at the University of Seattle, Washington State, USA. This is research into how the damaged hair cells in the nerve centre of the ear can be re-grown. Hair cell damage is responsible for approximately 90% of hearing losses.

Stem cell research is being used for a range of projects, including for those such as the late Christopher Reeve, who played Superman, who was paralysed after a fall from a horse. However she told us that President Bush and the American government have banned stem cell research using cloned embryos, and this has called a halt to the most promising line of research in the States. However other countries, allow this technology in certain circumstances, and so work is going on to try and alleviate the effects of hair cell loss.

research

A breath of fresh air for my ears! Another possible solution

We know that one of the drawbacks of tiny, discreet hearing aids can be the blocked feeling that some people get when wearing their hearing instruments. Manufacturers are constantly looking at ways of relieving this feeling, and the best way to do this is to make the ear canal as open as possible. Several of the leading manufacturers have now designed a novel solution to the problem - a tiny behind-the-ear instrument which is fully digital, using a twin microphone system that helps cut out background noise and that transmits sounds to the ear canal using a very thin plastic tube, replacing the traditional tubing ear mould. The almost invisible curved sound tube, whose gentle tension makes the device cling closely to the ear, nestles comfortably in the ear canal.

Extensive testing with both first-time and experienced hearing system wearers has revealed these open ear fittings to be such a revolutionary step forward to hearing comfort that it has surprised even the team responsible for its design. And because the ear canal is open, it allows sound from a telephone receiver to enter the ear canal unhindered, so you can use telephones and mobile phones normally without having to remove it.



Photo courtesy of Siemen's Hearing

It is designed for those people with a mild high-frequency loss; the system is virtually transparent to natural sound, simply adding amplification to sound where needed.

What's that whistle?

Hearing aid wearers sometimes experience a high-pitched whistle from their aids called feedback. Here is a quick guide for solving the problem.

By far the most common cause of feedback is wax in the ear. The sound is bouncing off the wax and 'feeding back' into the microphone, instead of being able to travel down the ear canal. Even a small amount of wax in the wrong place can cause this, so it is important to have the ear examined to determine the extent of the problem. Often a trip to the GP is necessary in order to have the wax removed. If the ear is free of wax, another possible reason for the whistle is poor insertion or a poor fit. If the aid or earmould is not being inserted correctly, this can leave gaps for the sound to leak out of the ear and be fed back into the microphone. If it is being inserted and the sound is still leaking out, then it may be that the fit is not tight enough.

This may be due to the ear changing shape. Sometimes a complete shell re-make may be necessary. For a behind-the-ear (BTE) instrument, a tighter or softer ear mould may be the answer. Do remember that some feedback will occur if you cover your hearing aid with your hand.

Another possibility is what's called 'internal feedback'. This is a problem relating to the aid itself. If the aid is removed and the microphone covered over, it should not whistle. If it does whistle there is a fault within the aid and we would need to return it to the manufacturer for inspection and repair.

The most important thing to do if you experience a problem with your hearing aid whistling is to come in and see us so we can determine the exact cause and work to solve the problem. Don't just give up on the aid and put it in a drawer somewhere. We are here to help!

help!

fresh air

Peter and Margaret Ferguson participate in the recent British/Irish Society Annual Conference

For the second time in history The British Society of Audiology joined forces with the Irish Society of Audiology and they held their Annual Conference in University College Cork from 14th to 16th September last. Peter and Margaret along with many delegates from the UK, Ireland and the rest of the world attended. It was an academic event and the scientific programme was designed to cover all the latest important aspects from the varied field of Audiology.

Eminent speakers from all over the world came to Cork. These included Professor Charles Berlin (Professor of Hearing Science), who despite having lost all his earthly possessions and some of his research laboratories in the recent hurricane in New Orleans insisted on coming. Margaret collected him and his wife Harriet from Shannon airport and it was wonderful to see them in such good form considering the chaos they had left behind them.



Professor Charles Berlin

The conference was rich in content, stimulating and provocative. Professor Harvey Dillon of the National Acoustic Laboratory of Australia and the foremost authority on hearing aids in the world was the keynote speaker. He spoke animatedly on current and future developments in hearing aid technology.



Professor Harvey Dillon

All the lectures, presentations and workshops were of an extremely high standard and introduced the most recent research and development. There were amusing and interesting discussions among the 250 participants. The conference was very favourably assessed by the attendants and international participants who highlighted the high scientific level of the event and its organisation.

technology

future

Batteries

€6 for 12

No matter how good the hearing instrument it still requires a battery to operate it. Our battery prices have come down to €6.00 for a double packet of 12 Rayovac Ultra Proline batteries. We are continually researching different sources of battery supply and even though we have been offered batteries at lower prices we found that when we tested the battery life it fell significantly below that of our current suppliers.

We continue to monitor batteries as they come to the market to ensure that we offer the best available at the most competitive price.

Don't forget - if for any reason you cannot come in to buy your batteries we will gladly post them to you. We do not charge for postage if you are getting more than one packet - we simply include a bill and all you have to do is post us back payment. It couldn't be simpler.