

Welcome to **Beacon Audiology** where we provide expert opinions and solutions for your hearing and balance needs.



# At Beacon Audiology

At Beacon Audiology we practice diagnostic audiology at the highest level possible and we assess and manage all types hearing and balance disorders in children and adults.

Beacon Audiology was established in 2001 by Dr Sandra Cummings and currently the clinic has seven Clinical Audiologists with a minimum of an MSc Degree in Audiology and/or Speech Language Pathology.

Beacon Audiology work in close collaboration with Ear, Nose & Throat Consultants, GP's, Neurologists, Speech and Language Therapists, Occupational Therapists, Physiotherapists and Educational Psychologists.

We have 70 years of accumulated experience in performing a high standard of hearing, balance, auditory processing, tinnitus, and hearing aid assessments for adults and children in a professional and friendly environment. We have undertaken to equip the clinic with the best and most up to date equipment and technology necessary to perform our audiological duties.

The audiologists at Beacon Audiology are involved in the MSc Audiology program at UCC as well as the Speech and Language Therapy Program at Trinity College by giving regular lectures to the students involved.

Beacon Audiology has been awarded a Consultant Approved Site (CAS) by an independent audiology assessment board in the UK.

Beacon Audiology are situated on the Beacon Medical Campus and provide the audiological support for Beacon Hospital.

We look forward to welcoming you to Beacon Audiology.

## Your Visit to Beacon Audiology

At Beacon Audiology we adhere to all the COVID-19 Guidelines, and you can be rest assured that your visit to us will be a safe one.

Once your appointment has been scheduled, you will receive an online history form to complete and submit. This is done via your phone or email and is very easy to complete. The history form is available in hard copy format should you need one posted out to you. This allows us to know beforehand what the reason for your or your child's visit is as well as the history of the problem and concerns. By having this information before hand, it allows us to prepare for your appointment adequately as well as to limit your time spent in the clinic.

# Adult Diagnostic Audiology



# Adult Diagnostic Audiology

Beacon Audiology provide a comprehensive adult audiology service and includes the following tests:

Video Otoscopy allows the examination of the ear canal and ear drum. The image is displayed on a screen for you to see and can be of assistance in identifying physical abnormalities related to your hearing loss.

Tympanometry is used to evaluate the movement of the eardrum and status of the middle ear.

Pure-tone Audiometry is used to carry out a comprehensive hearing assessment and consists of several tests including air and bone conduction testing. Information obtained from these two tests helps to determine the type of hearing loss. This may include a conductive loss (hearing loss due to problems in the outer and/or middle ear), a sensori-neural loss (hearing loss due to problems in the inner ear—cochlea and auditory nerve), or a mixed loss (a combination of both conductive and sensorineural). The information from these two tests also allows the audiologist to determine the severity of the hearing loss.

Otoacoustic Emissions (OAE) testing is used to assess the integrity of the outer hair cells in the cochlea (inner ear).

No behavioural response or co-operation is required. Responses produced by the cochlea are recorded and the test only takes 20-30 seconds. This is a quick, easy and objective test used to assess cochlear function and to rule out the possibility of a hearing loss.

Speech Audiometry in conjunction with pure-tone audiometry can aid in determining the degree and type of hearing loss. Speech audiometry provides information regarding an individual's speech discrimination abilities at various intensities as well as the impact that the hearing loss has on audibility and clarity.

**Speech-in-Noise Testing** also give the audiologist valuable information when deciding what hearing aid technology should be recommended for each and every individual patient. Speech-in-noise testing is quick and easy. This information can be helpful in predicting success of hearing aid use.

# Paediatric Audiology



# Paediatric Audiology

With the arrival of the new-born hearing screen, carried out in the hospitals from birth, children born with hearing loss are being detected and managed from a few weeks of age. However, hearing loss can occur at any age. Hearing tests should be carried out when a child is not meeting their milestones or there are concerns with listening attention. Although a child may not have permanent hearing difficulties, children are prone to middle ear fluid. Its impact on hearing can vary and, in some cases, will impact a child's speech and language development.

At Beacon Audiology, all staff have a minimum Master's degree in Audiology and/or Speech and Language Therapy/Audiology and therefore are fully qualified to test all ages. We have two fully equipped test booths for paediatric testing which enables us to provide diagnostic hearing assessments in a friendly and non-threatening environment. This not only allows us to determine the level of hearing of the child, but also how each section of the hearing pathway is functioning. New-born hearing screening using otoacoustic emissions is carried out from birth to 6 months as well as distraction testing using noise makers. Behavioural hearing assessments including Visual Response Audiometry is carried out on children 6 months to 18-24 months, depending on the child's level of development. From 2yrs-5yrs when the child is able to start following simple instructions, play audiometry and speech discrimination testing is carried out. The following tests are carried out during paediatric hearing assessments; otoscopic examination, tympanometry including acoustic reflexes, otoacoustic emissions, free field testing, pure-tone air and bone conduction testing, speech audiometry and speech in noise testing where indicated.

We are aware that children can be nervous in clinical environments. We have created a social story, 'My visit to Beacon Audiology', which can be found on our website, providing a visual guide of a paediatric hearing assessment which can be shown to the children prior to their visit.

# Hearing Aids



# Hearing Aids at Beacon Audiology

At Beacon Audiology we are the experts in hearing, and you are the expert in hearing loss. When it comes to choosing a hearing aid you are an active participant in the discussion. It's important that you are happy with your choice of hearing aid and the technology we have recommended.

Beacon Audiology offers a wide range of hearing aid styles and sizes for you to choose from as well as the technical specifications that we feel will be the most beneficial for your hearing needs.

We will first do a comprehensive assessment of your hearing in a soundproof booth. When programming a hearing aid, it is imperative that we have accurate hearing thresholds.

Once you have been deemed to be a candidate for a hearing aid, we will discuss the various types and sizes of hearing aids available. Beacon audiology have a full range of hearing aids from the completely invisible extended wear Lyric hearing aid, Bluetooth hearing aids with phone and TV compatibility as well as custom made hearing aids and powerful hearing aids for severe hearing losses.

Your hearing aid will be programmed and fine-tuned according to your hearing loss. We will verify your hearing aid fitting using Verifit which is the gold standard in Real ear Measurements.

Bluetooth hearing aids allow direct streaming of your phone calls, music and TV straight to your hearing aids. Your hearing aids can be controlled by an app on your phone which allows you to adjust your hearing aids based on the changing environments you find yourself in.

A significant benefit in hearing aid technology has been the advent of remote support. At Beacon Audiology we can program your hearing aids remotely from anywhere in the world.

We would love to help you improve your hearing and put the frustrations of mis-hearing and not hearing behind you. When you improve your hearing, you reconnect with the people around you. Please contact the clinic to set up an appointment with us if you are ready to improve your hearing.





# Balance Assessment



# Balance Assessment

Beacon audiology have invested in the state-of-the-art Interacoustics™ balance assessment equipment which allows us to objectively assess every part of the balance system and this in turn assists us in making a diagnosis of the cause of the balance problems as well as to make recommendations for treatment and management of the balance disorder. Beacon audiology work closely with Ear Nose & Throat consultants, Neurologists, Physiotherapists and Occupational therapists by performing objective balance assessments to assist in diagnosis and management of their patients.

The Sway test, cVEMP's, vHIT, VNG and Air Calorics as well as the Rotatory chair test are part of Beacon Audiology's assessment protocol.



# Tinnitus Management

Beacon Audiology provide a tinnitus assessment and management service. A full diagnostic hearing assessment and tinnitus pitch matching is carried out in order to determine the integrity of the auditory system and whether or not there is a hearing loss which may be contributing to the tinnitus and if required an onward referral to an Ear Nose & Throat Consultant will be made. Referral for Cognitive Behavioural Therapy (CBT) is also made where indicated.

## **Beacon Audiology's tinnitus management protocol includes:**

**Sound Therapy / Wearable Sound Generators** which help to gradually reduce your focus on the tinnitus sound by promoting habituation and shifting the focus away from the tinnitus.

**Digital Hearing Aids** in particular open-fit digital hearing aids can help with tinnitus management by compensating for a person's hearing loss as well as masking the uncomfortable noises affecting tinnitus patients. By providing amplification in this frequency range the individual is often far less aware of the presence of tinnitus and at the same time the hearing is improved for high frequency sounds, therefore serving a dual purpose.

**Lyric Invisible Hearing Aids** has proven to be very successful with tinnitus management. The reason for this is the fact that Lyric provides continuous 24/7 amplification thereby providing continuous relief for individuals suffering from tinnitus due to hearing loss.

# Auditory Processing Disorder (APD)

## What is Auditory Processing?

Auditory Processing is the way our ears communicate with our brain and what our brain does with what it hears. An auditory processing disorder (APD) causes difficulties with processing of sounds and speech even when the person (often a child) has normal hearing.

Beacon Audiology offers a comprehensive Auditory Processing Assessment and Intervention Service. The clinicians are Diagnostic Audiologists with some having a dual qualification in Speech-Language Pathology. Beacon Audiology is a Consultants Approved Clinic. Parents or Teachers can refer without a GP referral. The assessment battery can be administered on children from 7 years of age. If an APD is identified the Diagnostic Audiologist will discuss the best treatment options to address the areas of concern.



# Speech & Language Therapy



# Speech & Language Therapy at Beacon Audiology

At Beacon Audiology we understand that hearing and speech and language development are intrinsically linked. We have found that many children who attend our clinics often present with speech and language difficulties and many parents have expressed concerns in accessing speech and language therapy for their children. Now your children can have their hearing, speech and language development assessed all in the one clinic. We specialise in Early Language Development, Speech Sound Disorders, Language Delays and Auditory Processing difficulties. Our goal is to provide a tailored family-centred intervention approach to help facilitate the best communication development for your child. Beacon Audiology is the first clinic in Ireland to offer this comprehensive Paediatric Audiology and Speech & Language Therapy service.

## Electrophysiological Assessments

Electrophysiological assessments require sophisticated equipment and advanced audiological skills.

**Auditory Brainstem Response (ABR/BSER)** is a screening test for hearing loss or deafness, especially notable for its use with new born infants or difficult to test children & adults. It is a method to assess the auditory pathways and brainstem function in response to auditory stimuli, prior to the child developing to the point of describing a possible hearing problem. ABR is a safe and painless test.

ABR is performed when the child/adult is asleep or in a resting state. Electrodes are applied to the child's/adult's head and insert earphones are used to provide the sounds. Neurological responses are recorded in response to the sounds presented. The test takes approximately 1 hour.

**Cortical Evoked Response Audiometry (CERA)** is an objective test used to estimate the auditory (hearing) threshold. Neurological responses in response to a sound stimulus are recorded by placing electrodes on the head. The presence of the response and the response characteristics, assists in the estimation of the individual's hearing ability. No response from the patient is required. The test is completely objective.

**TALK TO US,  
WE ARE ALL EARS**



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