

Hear & Now

Spring 2019



Real Ear Measurements

Sound travels through air as waves moving away from the source, bouncing off objects, overlapping each other, all the while losing energy as they travel, much like ripples in a pond moving away from the edge. When they reach an ear, these now slightly banged and bashed sound waves, enter the outer ear canal and make their way down to the eardrum.

The outer ear canal not only to collect and funnel sound toward the eardrum, it also naturally amplifies sound, specifically the higher frequencies. The exact amount of amplification is particular to each individual and depends on the length, size and curvature of the canal.

Anything inside the canal, like wax, lumps or bumps, or anything placed inside the canal, like a hearing aid, can alter the ear canal's natural resonance.

When we test hearing with headphones on, the results represent how the ears hear without amplification. The hearing aids are set to this measured result. However, by inserting a hearing aid or part thereof into the ear, we automatically alter the ear's natural resonance slightly - positively or negatively. The art is to predict by how much we've altered the space in the ear and thereby what adjustments are required to give the ear what it needs to improve the hearing sufficiently. It is an art mastered by audiologists after years of experience and training.

However, sometimes it is necessary to measure how much of an effect a particular hearing aid has on the inside space of a particular ear. This is called Real Ear Measurements (REM). By doing them, we can take individual physical differences into account when programming hearing aids. This verification testing requires specialized equipment and specific testing environments. ***We can do REM at our Wynberg and Fish Hoek rooms.***

REM allow us to address fitting issues that we have not been able to address before. We can use objective results to find the ideal sound settings, although patient comfort and opinion is paramount and will always outweigh objective test results. It can be used with old or new hearing aids, any brand and any technology level and only requires a willing participant, a trained professional and a clean ear.

REM is the golden standard in hearing aid verification and we will implement it on as many of our fittings as possible. It can be performed at the first fitting, on follow-up or even years later. By verifying a hearing aid, we can see what the hearing aid is actually doing in the ear as opposed to what we think it's doing judging only by the hearing aid software and the wearer's reports.

If you would like to have your hearing aids verified, contact us for pricing information or to book an appointment. A verification session will take about an hour. If you haven't had a hearing test in more than 2 years, we would need to retest you before the verification can be performed.

Speech-in-Noise Testing

Our ears and our brains work differently when we're in noise - they are wired to do so. In our next newsletter we will go into how that works, but here we are going to talk about how we measure this. Many of us can relate to the cartoon above. The feeling that we can hear differently when we're in quiet to when we are in noise. When you add a hearing loss to the mix, the lines blur even more, and we become uncertain of whether our ears are to blame for the lack of hearing or whether the level of noise is to blame.

The ability to hear and understand speech in the presence of background noise is highly dependent on the speech-to-noise ratio (SNR), that is, the level of the speech relative to the level of the background noise. Hearing-impaired listeners require a higher SNR than normal hearing listeners to achieve the same level of speech understanding.

For most, the standard intervention is the provision of hearing aids, and some hearing aids can improve the SNR by incorporating directional microphones and various speech enhancement and noise reduction features.

However, how do we know who needs these features and who doesn't? Remember, the more features a hearing aid has, the pricier it will be. What if you are rarely exposed to bothersome noise or what if noise doesn't really bother you? Usually we do a needs analysis to determine, together with the diagnostic results, who would need extra help with listening to speech in noise and who won't. A standard part of a diagnostic assessment is a test called the word recognition test (WRT). It gives us an idea of how well you hear, process and interpret speech. It is critical in giving us an indication of how well hearing aids can work for you. A diagnostic WRT is done in quiet though, so how do we know whether you'd cope in noise?

To get an idea of how well or how poorly a person would hear and process speech in the presence of background noise, we can do a speech-in-noise test. It incorporates the WRT but presents the words in the presence of background babble - the type of noise that most people might struggle with. It's presented at a positive SNR, meaning there is still enough speech for those with good neural function to hear the speech above the noise, but just enough noise for those who have significant difficulty in noise to score low on the test. This way we can better gauge who really needs a higher level of technology and who doesn't.

Again, these tests require specialized equipment and currently we can offer these tests at our Wynberg and Fish Hoek rooms. We will only do them as a part of the standard battery of tests if we suspect major difficulties in noise, but if you would like a Speech-in-Noise test done to see how you perform in the presence of background noise, especially if you feel your hearing aids are underperforming, or you are considering an upgrade, please contact us to book an appointment. If you haven't had a recent hearing test, we would need to retest you first.

In Other News...

year, Francis celebrated her 20th year in the practice, we bid a sad farewell to Barbara, and we welcomed Lizel to the Fish Hoek team. It's been a long, rough year, with ups and downs, many happy moments and some very very sad ones, but we are yet again grateful for your support and encouragement through it all. We had to unfortunately pull the plug on the Camps Bay rooms due to the ongoing renovations, causing dust, moisture, noise and disturbances which are not tolerable when you do sound-sensitive work and not only damages our equipment but creates an unhealthy environment for both ourselves and our clients. We were very sad to walk away so soon, but Que Sera Sera.

Please keep in mind that October to December is crazy season at the practices so don't leave your new hearing aid orders, repairs or spares to the last minute. We close our Wynberg and Claremont rooms for Christmas on 20 December, Tokai will close on 17 December and Fish Hoek will close on 18 Dec. We re-open in Wynberg and Fish Hoek on 6 January and in Claremont and Tokai on 7 January. Please note that all medical aid claims for 2019 must be submitted before 20 December to be processed correctly, so please book early to avoid disappointment. We've heard some disturbing rumours about the Discovery Hearing Aid Benefits next year, so if you were planning on waiting for the new year to claim a new hearing aid, please check your 2020 benefits well in advance so that you don't get a nasty surprise next year.

Download our Hearing Clinic Family App where you can find information on all the latest hearing aids or make direct contact with us. The links are below to download it from the Google Play Store or from Apple iTunes. A new article is posted twice a month on our [Blog](#) covering interesting topics about audiology and new hearing aids. It is also posted on our [Facebook Page](#).

Try our free hearing screening test at www.hearingclinic.co.za/hearing-test. It's a nice way of monitoring your own hearing or to help someone take the first steps to identifying a hearing loss.

Hearing aids are prone to internal moisture build up during the cold winter months and in extreme heat, causing corrosion which voids the warranties on the products. Keep them dry by using Dry Capsules or an Electronic Drying Box. Purchase a Care Kit for only R100 to help with cleaning and moisture prevention.

Our Summer Battery Discount Drive is Back

Buy 4 packs of batteries and get 1 pack free! R40/pack. **That's 5 packs for R160 or 10 packs for R320 only!**

Offer valid until 20 December 2019. Not applicable to rechargeable batteries or Cochlear Implant batteries.

Francis Slabber

Elisha Berridge

Celeste Leveson

Beth Cockcroft

Sarah Buitendag

Wynberg

30 Constantia Road

Monday to Friday

8h30 – 17h00

021 797 7948

Tokai

Tokai Village, Vans Road

Tues & Thurs

8h30 – 16h30

021 715 5623

Claremont

19 Belvedere Rd

Mon, Tues, Wed & Fri

8h30 – 13h30

021 797 7948

Fish Hoek

Valyland Centre

Mon - Fri

8h30 – 16h30

021 782 3322