

# Hearing Implant Referral Guide

For Clinicians



## Ear Science Implant Clinic

Ear Science Implant Clinic is part of Ear Science Institute Australia, a world-renowned medical research institute and official World Health Organization Collaborating Centre. Established in 2004 by Professor Marcus Atlas, Ear Science Implant Clinic is WA's largest private hearing implant program, changing the lives of more than 100 West Australians every year.

Ear Science Implant Clinic is committed to establishing partnerships with clinicians across WA, working together to provide clients with, and those who need hearing implants with the support they need.

### Our Role

- To support you and your client, and their family through each step of their hearing implant journey
- To provide your clients with the opportunity to speak to recipients through our Mentor Program and support events
- To provide a holistic, evidence-based, multidisciplinary team approach to every client care
- To ensure shared care, we encourage you to attend your client's appointments in our implant clinic
- Provide you with the support you need to continue to care for your bimodal clients

### Important Considerations

- **It's a shared responsibility.** If you think your client may benefit from a hearing implant, encourage them to have further testing.
- **Discuss hearing implants as a treatment option from the beginning using positive language.** People of any age and with many types of hearing loss may be suitable for a hearing implant.
- **Focus on your client's hearing goals and lifestyle.** Don't get stuck on the audiogram. Your client's goals are a good indicator for hearing implant suitability.





## When to CONSIDER a referral for a cochlear implant

A referral should be considered when your client is using optimised hearing aids and is **still not meeting their hearing goals**.

### Consider the following:

If your client experiences one or more of the following with well-fitted hearing aids, they may benefit from a cochlear implant.

- Difficulty hearing on the phone?
- Difficulty following a group conversation and avoids social situations?
- Often asks people to repeat themselves?
- Relies on lip-reading to understand what is being said?

## When to REFER for a cochlear implant assessment

Candidacy for referral is simple. Utilise the 60/60 guideline for referring adults for a cochlear implant assessment<sup>1</sup>

Refer if your client meets **ONE or more** of the screening criteria.

### Audibility

≥ 60dB pure tone average *in the better ear*

### Speech Understanding

≤ 60% on whole word scores in the better ear



1 Zwolan, Teresa & Schwartz-Leyzac, Kara & Pleasant, Terrence. (2020). Development of a 60/60 Guideline for Referring Adults for a Traditional Cochlear Implant Candidacy Evaluation. *Otology & Neurotology*, 41(7), 895-900. <https://doi.org/10.1097/MAO.0000000000002664>

## Traditional Hearing Implant Criteria

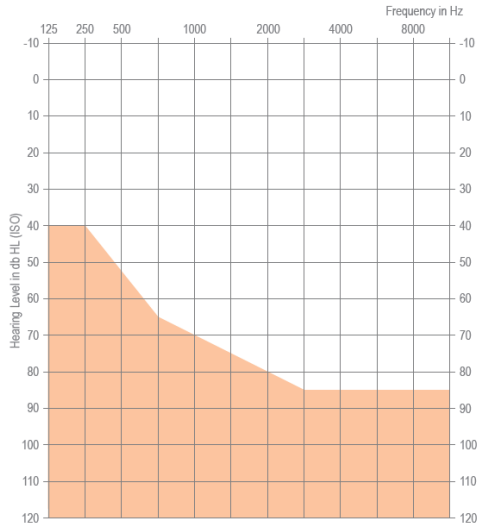
Referring your client to the Ear Science Implant Clinic is the first step in their hearing implant journey and using the 60/60 guideline is the simplest and quickest way of identifying if your client is suitable for a cochlear implant.

Over the next few pages, you will see the traditional criteria our Implant Clinic uses for the various hearing implants as part the implant assessment. This is for your reference only.

You will see there are different considerations and tests required for different hearing implants. These criteria continue to evolve as more outcomes data becomes available, and it is for this reason we recommend utilising a simpler 60/60 referral guideline.



# Cochlear Implant Candidacy

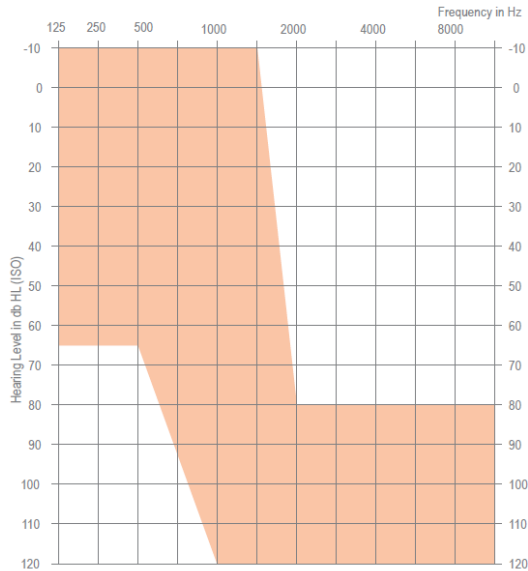


Candidacy Criteria

- **Sensorineural Hearing Loss**
  - Moderately severe to profound SHNL in one or both ears
  - Poor Speech Discrimination
  - Limited benefit from conventional amplification
  - **SSD - Must have trialed non-surgical options/BCI on test-band before recommended for CI**
- **Mixed hearing loss**
  - Hearing aid is medically contraindicated
  - Progressive hearing loss and bone conduction thresholds are outside criteria for a BCI >65dBHL
  - **Such individuals must be reviewed in a team meeting to rule out the possibility of other implantable devices**

AIDED SPEECH	Better Ear	Poorer Ear
CNC phonemes in quiet 65dB SPL	74%	54%
CNC words in quiet 65dB SPL	50%	26%
Open set CUNY in Quiet 65dB SPL	90%	62%

# Electric-Acoustic System Candidacy



## Electric-Acoustic System Criteria



- **Stable SNHL**
  - Low Frequency: Normal - moderate loss, High Frequency - profound loss
  - No air-bone gap
- **No medical contra-indications to fitting an acoustic device to the implanted ear**
- **Has trialed hearing aids recently with limited benefit**
  - Consider trial of frequency transposition/compression amplification
  - Consider degree of difficulty candidate is experiencing in background noise

AIDED SPEECH*	Implant Ear
CNC words in quiet	10-60%

# Bone Conduction Implant Candidacy - Mixed or Conductive Hearing Loss

## Main Criteria:

- Stable BC thresholds (BC thresholds  $\leq 65$ dBHL)
- Air-Bone Gap  $> 30$  dB (PTA4)



- Good speech perception in ear to be implanted
- Symmetrical BC thresholds (unless there is no other rehabilitation option)
  - Careful consideration should be given if there is  $>10$  dB asymmetry between BC levels due to the potential for crossover of the BC signal.
  - Review at the clinical meeting if candidacy is unclear/ borderline
- Inability to use conventional hearing aids

## Why a bone conduction implant over a hearing aid?

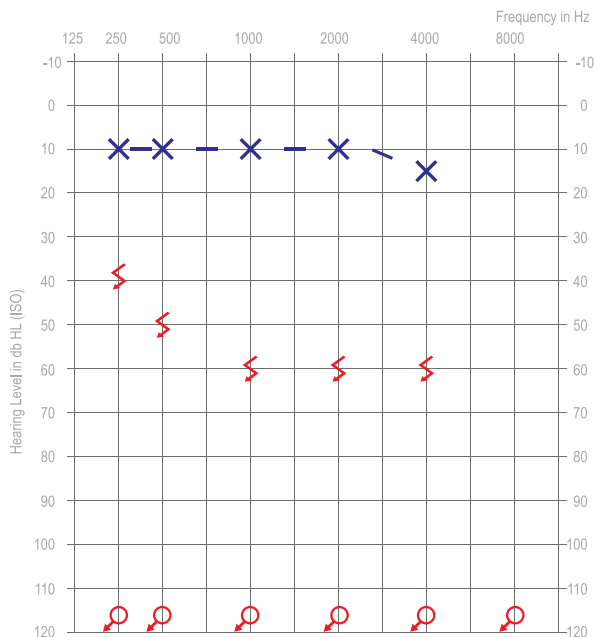
	Air bone gap $>30$ dB	Ear canal allergy	Previous surgeries	Recurrent Otitis Media
Bone Conduction Implant	✓	✓	✓	✓
Hearing Aid	✓	✗	✓	✗

● good benefit   ● reasonable benefit   ● no benefit

# Single Sided Deafness - Candidacy Criteria

## Single Sided Deafness:

No useable hearing in one ear,  
normal hearing in the other



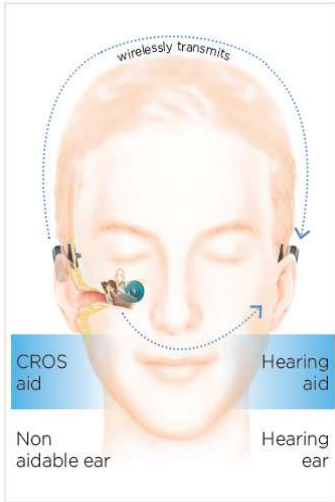
### Single Sided Deafness - Candidacy



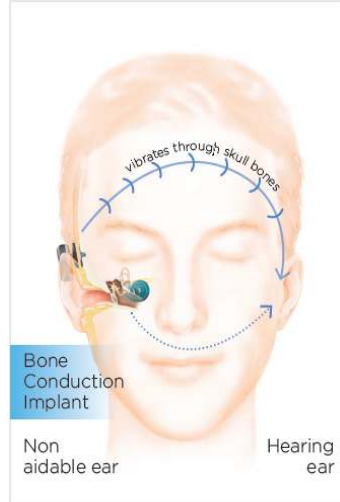
- Stable, normal to near-normal BC thresholds (good ear)
- Average AC in good ear  $\leq 20$  dB HL
- Completion of a take-home trial with a device on a test band and/ or a CROS system MUST have been completed
- Dissatisfaction with results obtained with non-implantable options
- Non-surgical options (e.g. CROS/ BiCROS/conventional HA) have been discussed and trialed if appropriate

# Single Sided Deafness – Treatment Options

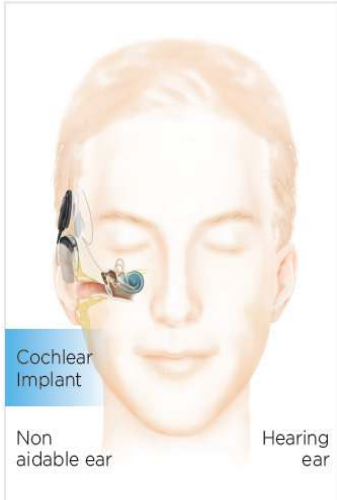
## BiCROS/CROS



## Bone Conduction Implant



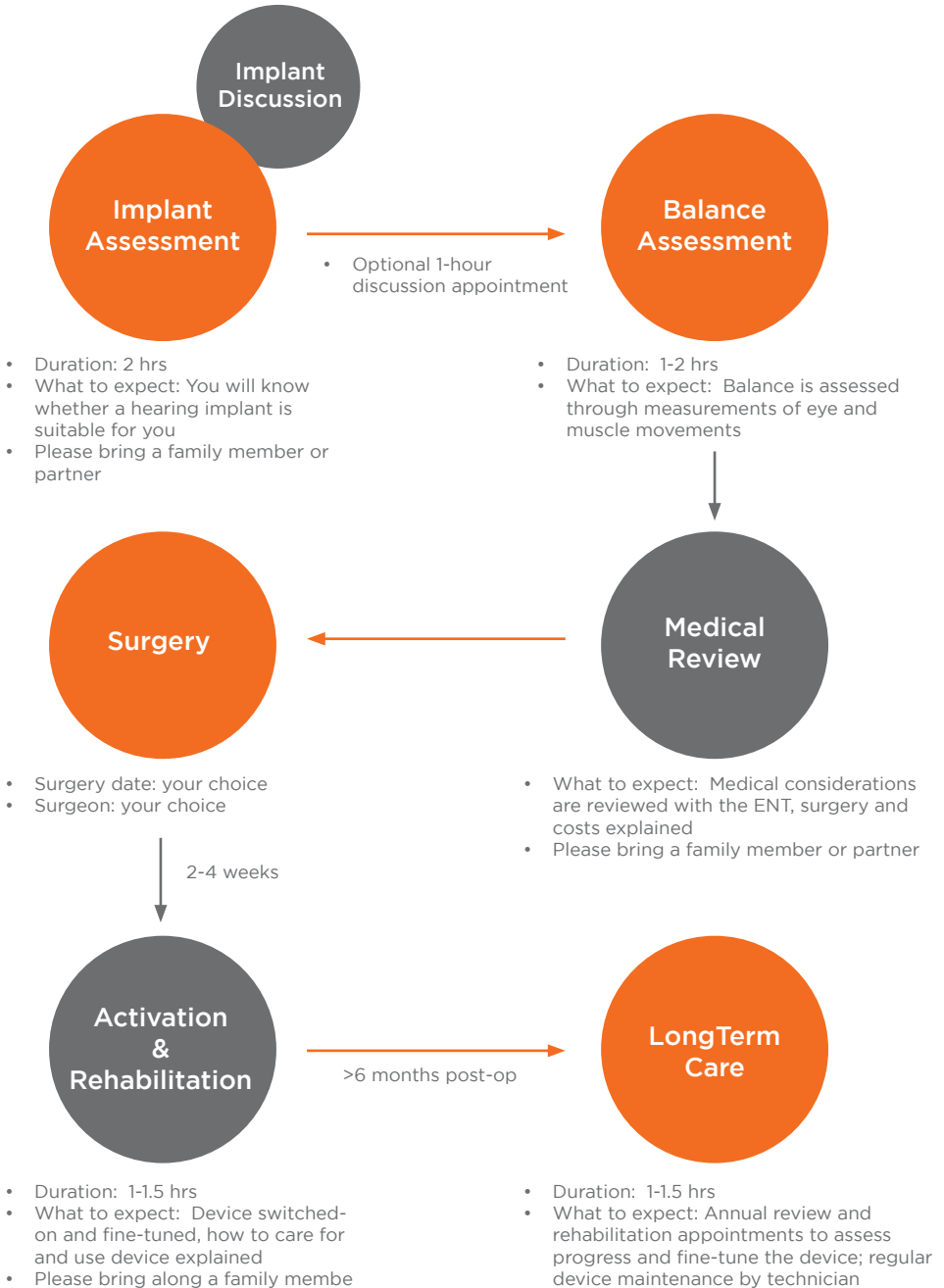
## Cochlear Implant



- Single Sided Deafness is when a person has usable hearing in one ear only.
  - PTA in better hearing ear  $\leq 30$  dB HL
  - SNHL  $\geq 70$  dB HL in the poorer ear with no functional hearing (unaidable)



# Your Clients Hearing Implant Journey



## How to Refer

Please complete the referral form  
Email to [info@earsclenceclinic.org.au](mailto:info@earsclenceclinic.org.au)  
Fax 6380 4950

### Information to include in your referral

- Latest full audiogram
- A report highlighting the reason for referral and the client's motivation
- Optimised hearing aids (set to NAL targets)
- Other information you feel will be helpful

## Our Locations

Subiaco Head Office:

Suite 2, Level 2, 1 Salvado Road,  
Subiaco

Five convenient locations:

Subiaco, Perth City, Joondalup,  
Winthrop and Bunbury



## Dedicated Support

Our Implant Co-ordinator is here to help you and your clients with all your questions. If you have questions about the journey, funding options, costs or a question about a specific client, please call our Implant Co-ordinator on 0427 384 989.

## Mentor Program

Our dedicated mentor program is offered to anyone considering an implant. Our mentors volunteer their time to share their stories and experiences as an implant recipient.

## Cochlear Implant Information Evenings

We hold regular information evenings at our Subiaco Clinic with guest speakers who share their experience of having a cochlear implant.

To **attend or request an invitation** for your client, please email [info@earsienceclinic.org.au](mailto:info@earsienceclinic.org.au)



# Our Services

Service	Duration	Cost
<p><b>Hearing Implant Candidacy Assessment</b></p> <p>Comprehensive hearing assessment including speech perception testing to identify suitability for a range of hearing implants (cochlear implants, bone conduction implants, middle ear implants and brain stem implants).</p>	2 hours	<p>Fully subsidised for DVA cardholders</p> <p>\$150 for all other clients</p>
<p><b>Pre-Implant Vestibular Assessment</b></p> <p>Completed as part of the hearing implant candidacy assessment. Includes vHIT, cVEMP and caloric testing.</p>	1 - 2 hours	<p>Fully subsidised for DVA gold cardholders.</p> <p>Up to \$115 for all other clients</p>
<p><b>Diagnostic Vestibular Assessment</b></p> <p>Includes an audiogram, oculomotor evaluation, video head impulse testing (vHIT), cervical vestibular evoked myogenic potential (cVEMP) &amp; bithermal caloric testing.</p>	2 hours	<p>Fully subsidised for DVA gold cardholders.</p> <p>\$150 for Pension cardholders \$220 for all other clients</p>
<p><b>Diagnostic Vestibular Assessment + ECochG</b></p> <p>A full diagnostic vestibular assessment with electrocochleography, a valuable tool in the diagnosis of early-stage Meniere's disease.</p> <p>(3 hours if combined with SSCD testing)</p>	2.5 hours	<p>Fully subsidised for DVA gold cardholders.</p> <p>\$210 for Pension cardholders \$280 for all other clients</p>
<p><b>Diagnostic Vestibular Assessment + SSCD</b></p> <p>A full diagnostic vestibular assessment for semicircular canal dehiscence (SCCD), including vestibular evoked myogenic potential threshold seeking (cervical and ocular) and sound and pressure evoked testing.</p>	2.5 hours	<p>Fully subsidised for DVA gold cardholders.</p> <p>\$210 for Pension cardholders \$280 for all other clients</p>
<p><b>Diagnostic Vestibular Assessment + BPPV</b></p> <p>A full diagnostic vestibular assessment with positional tests &amp; repositioning manoeuvres (where indicated).</p>	2.5 hours	<p>Fully subsidised for DVA gold cardholders.</p> <p>\$210 for Pension cardholders \$280 for all other clients</p>



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