# Hear things differently

# Information for Patients and Referrers



# Welcome to the Southern Cochlear Implant Programme

We are dedicated to helping children and adults with hearing loss, who gain minimal or no benefit from conventional hearing aids and aim to improve their hearing and spoken communication through the use of a cochlear implant or implants.

The benefits of a cochlear implant are life-changing; it connects or re-connects people with home, school, work, and community. Our team of specialists support the full spectrum of your or your child's cochlear implant journey, from initial assessment through to post-surgery rehabilitation. We welcome referrals and each person who enters the Programme has their needs assessed appropriately by our team.

We make the life-changing benefits of a cochlear implant more easily attainable for anyone who could benefit from the technology, whether publicly or privately funded.

As a registered charity operating as a not-for-profit, we aim to keep our fees and costs to a minimum in an effort to make cochlear implant technology accessible to as many people as possible.

### Why choose our service

#### Integrated services

We carry out all assessments, perform surgery, activate your implant, administer any adjustments required, and offer rehabilitation and speech and language therapy. We provide implant systems from all major manufacturers and provide back-up support for your equipment needs.

### Experience

We have been operating cochlear implant services for more than 15 years and currently provide care to more than 800 children and adults.

#### Wide reach

In addition to our two offices in Christchurch and Wellington, we also provide visiting clinics to a catchment area that includes all regions south of Taupo in the North Island and the entire South Island.

### How we are funded

The Programme has a contract with the Ministry of Health to provide public cochlear implant services to children and adults, but also offers private services to those who do not meet the Ministry of Health candidacy or eligibility guidelines.

Because demand often exceeds Ministry of Health funding, we look to fundraising and charitable donations to help fund cochlear implants for those in need.



# Am I suitable for a cochlear implant?

A cochlear implant is a surgical treatment for hearing loss and other auditory disorders, which can dramatically improve a person's quality of life.

The technology is primarily used to give access to spoken language for patients with severe to profound hearing loss where even well-fitted hearing aids are ineffective. It is suitable for both children and adults of all ages.

A cochlear implant may also be suitable for:

- Hearing loss caused by Auditory Neuropathy Spectrum Disorder (ANSD)
- Treatment for intractable tinnitus\*
- Providing binaural hearing for those with single-side deafness\*

\* These treatments are currently outside Ministry of Health funded guidelines so must be funded privately.

Before we recommend cochlear implantation we will need to establish whether the procedure is right for you, your child or your patient.

Becoming a cochlear implant candidate involves an evaluation that includes audiology, ear, nose and throat (ENT) consultation, and speech and language assessment.

# Hear things differently

# In adults, a cochlear implant might be the correct procedure if you display:

- Moderate to profound sensorineural hearing loss (i.e. ≥ 90dBHL at 2000Hz and above for better ear) including ski slope or reverse losses
- Good oral/ aural communication skills
- Limited or no benefit from hearing aids
- 60% or less on HINT Sentences, 30% or less on CNC Words
- Sensorineural hearing loss as a result of meningitis – NOTE: these patients should be referred urgently

#### In children, a cochlear implant might be the correct procedure if they display:

- Severe hearing loss or worse, from 1kHz to 8kHz on ABR testing or on an unaided test
- Limited aided speech information above 2kHz (as seen on speechmapping)
- Severe reverse sloping hearing loss or worse, or inadequate speech and language progress

- ANSD with inadequate speech and language progress
- Sensorineural hearing loss as a result of meningitis – NOTE: these patients should be referred urgently

### Important:

- There is no maximum or minimum age for referral to the Programme.
- Children older than three who are referred to the Programme should have documented evidence of developing oral language. Children over the age of four with no oral language will be considered and discussed only on a case-by-case basis. A child older than five with no oral language is unlikely to benefit from a cochlear implant.
- Patients with additional needs will be accepted for assessment.

### How to refer a patient

If you would like to refer your patients for cochlear implant treatment, our specialist team will be happy to help. If you are unsure about a possible referral, please call us to discuss.



# What to expect during the assessment process

The assessment determines whether a cochlear implant will provide you or your child more benefit than conventional hearing aids. The Programme carries out a full assessment over a number of appointments with its various specialists. We take time to listen to your concerns and answer any questions you have during the process. Following the assessment, test results will be explained, a report summarising the assessment will be written and a recommendation made.

### 1. Pre-assessment

Before an assessment, we will request information from the local professionals already involved in the candidate's care. This may include:

- Copies of early hearing test results
- Details of hearing aids
- · History of the hearing loss
- Other medical reports
- Reports from school teachers (where appropriate)

2. Audiology assessment (estimated at 2-3 hours)

This assessment is to determine whether a cochlear implant is the best option. The audiology assessment involves:

- A full history
- A check of existing hearing aids used
- Unaided hearing testing
- Aided hearing testing
- Aided speech perception where appropriate

The number of appointments required will vary from individual to individual and will depend on a number of factors, such as age.

3. Rehabilitation assessment for adults (estimated at 1.5 hours)

A rehabilitation assessment considers your current listening and communication needs as well as the outcomes to be expected from a cochlear implant. The rehabilitation appointment is also an opportunity to look at a cochlear implant device and become familiar with how it works, and to discuss listening practise and rehabilitation post implant.

# 4. Speech and Language assessment for children (2 hours)

An evaluation of speech and language will be carried out at the clinic or, where necessary, at your home and/or your child's school. The Habilitationist will also liaise with the local speech and language therapists and others involved with your child's care.

In older children, an assessment may involve formal language assessments. In very young children, this may involve checklists and developmental scales.

# 5. ENT assessment (estimated at 30 minutes)

This assessment involves a discussion about:

- A medical case history
- Medical issues surrounding imaging (such as MRI and CT scans)
- Referral for an MRI and/or CT scan
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- The nature of the procedure
- The risks of the surgical procedure and likely outcomes

### 6. CT scans and MRI

Once it is determined that a patient may be an eligible candidate, a CT scan and possibly an MRI will be done to confirm the ear is suitable for implant surgery. The scans may be completed at St George's Hospital, Christchurch, or at the patient's local DHB.

7. Summary and Information (1 hour)

At the end of the assessment process, our team will make a recommendation if a cochlear implant is the right option for the candidate. If the recommendation is to proceed, you will be provided information about funding, implant systems and the process of implantation.

We will discuss with you what you or your child can expect from an implant, and the Programme will provide an opportunity for you to meet an existing cochlear implant recipient.





## About cochlear implant surgery

The operation takes approximately two hours and is carried out under a general anaesthetic.

Once the cochlear implant operation is completed, staff will perform some initial implant testing in the operating theatre. This testing is in preparation for the subsequent activation of the sound processor.

### Are there any risks?

While it is important to be aware that complications can occur, in practice very few significant negative side effects have been reported worldwide. The cochlear implant surgeon will discuss the risks with you in more detail before the surgery.

# How long do I need to stay in hospital?

An overnight stay in hospital after the procedure is usually required. Patients are generally admitted the day before surgery, or the day of surgery itself. Those with a more involved medical history may be admitted a few days prior to the scheduled surgery date.

### Can you hear after the surgery?

No. At this point only the internal parts of the device have been fitted. Depending on you or your child's recovery after surgery, you may have your device activated within 1-2 days after the operation. Otherwise there may be a wait of up to 14 days after surgery to allow any swelling or tenderness around the implant site to subside, before the external parts of the device are fitted. The external processor is adjusted to you or your child's individual hearing responses.

## Switching on your implant

Individuals respond differently on the first day of activation or 'switch-on'. It will take time to adjust to the new sound. This can be quite an emotional experience for a patient and their family.

Programming and evaluation of the implant system continues over the following months/years. The total number of appointments depends on individual needs, and speech and hearing tests are completed on a regular basis to measure benefit.

Estimated outline of ongoing support needed

Timeline	Team contact
Up to 14 days after surgery	Switch-on device over
	two days and written report
2 weeks after switch-on	Audiology and Habilitation/Rehabilitation
1 month after switch-on	Audiology and Habilitation/Rehabilitation
2 months after switch-on	Audiology and Habilitation
3, 6, 9, and 12 months after switch-on	Audiology and Habilitation/Rehabilitation
18 months after switch-on	Audiology and Habilitation
For children:	
Every 6 months thereafter	
until 6 years of age	Audiology and Habilitation
Annually after 6 years of age	Audiology and Habilitation
For adults:	
24 months after switch-on	Audiology
Annually thereafter	Audiology

## Outcomes - What to expect

Outcomes vary between patients and may be dependent on factors such as:

- The history of you or your child's hearing loss and past auditory experience
- Consistency of use of the implant system
- Listening practise as part of a spoken language programme

A cochlear implant in adults can provide access to spoken language with or without lip reading cues. Some adults may be able to hear on the phone. In young children, a cochlear implant can facilitate the development of spoken language. Children with congenital hearing loss implanted by their first birthday may achieve spoken language the equivalent of their hearing peers by the start of school.

It is important to understand that a cochlear implant does not restore normal hearing. People may still experience difficulty hearing in background noise or other group or difficult listening situations.

Expectations and outcomes for each patient are discussed in some depth prior to implantation.



# Costs and funding options

## Am I eligible for Ministry of Health funding?

The Ministry of Health funds cochlear implant services for people with severe to profound hearing loss where hearing aids prove ineffective for acquiring or maintaining spoken language.

For those who meet eligibility criteria, the Ministry of Health funds bilateral implants for children (up to 19 years of age) and one implant for adults. Funding generally meets demand for children's services. Demand exceeds available funding for adults and therefore funding is prioritised based on a national Clinical Priority Access Criteria (or CPAC) tool. There may be a wait time.

We use the Cochlear Limited system for all Ministry of Health funded patients.

Only patients who live in New Zealand permanently and are eligible for publiclyfunded health and disability services may qualify.

The Ministry of Health funded service includes:

- Initial assessment
- The device (an implanted electrode and a sound processor which is worn externally)
- Surgery
- Audiology
- Rehabilitation for adults or habilitation for children
- Processor replacement when the current processor becomes unserviceable

For funded patients, the cost of travel to our offices for an audiology assessment, surgery and followup appointments may be covered through the Ministry of Health's National Travel Assistance Scheme.

Spare parts, batteries, and repairs for the sound processor are funded for children until they reach 19 years of age. Anyone aged over 19 is |required to pay these ongoing costs themselves.

## Private patients

Patients who do not meet the Ministry of Health eligibility criteria for full funding may elect to fund a cochlear implant(s) themselves.

We work with the four main implant manufacturers and can discuss the cochlear implant system best suited to your needs. While private patients may elect the manufacturer of their choice, in some cases clinical circumstances will dictate the recommended implant system.



All prices include GST and may be subject to change. For a full list of terms and conditions contact our Christchurch clinic. Prices listed are for the implant system only; Surgical, hospital and consult fees are separate.

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### Our consultation fees – Private Patients

Cochlear Implant Candidacy assessment (Audiology, Rehabilitation)	\$750
"Meet-and-greet" pre-op discussion	No charge
Post-implant follow-up\$5,400 per implant*(once-off fee, includes Audiology and Habilitation/Rehabilitation)	
Spare parts, batteries, and repairs	At cost
Travel and accommodation	Out of pocket. Not eligible for National Travel Assistance

\* A 40 per cent discount on consultation fees is offered for simultaneous recipients on the second ear.

Prices provided here are accurate, but may change at any time. For confirmation of implant prices and fees, please request a formal quote which is valid for 30 days.

### Hospital and surgeon costs - Private Patients

We work with other specialists for the hospital and surgical aspects of your cochlear implant care. These costs need to be obtained directly from the specialist(s) concerned, subject to their own terms and conditions.

Approximate hospital, surgical and associated medical costs (not including the cost of your implant) is: \$18,000 - \$20,000

Contact details for the specialists we work with are listed below:

### ENT Services – Surgeon's Fees

Phil Bird 03 962 6020 or tania@chchorl.co.nz

Melanie Souter 03 355 3299 or deb@chchorl.co.nz

### Anaesthetist

Anaesthesia Associates 03 365 3777 or office@anaesthesia.co.nz

### Hospital Stay – Theatre Fees and Ward Stay

St George's Hospital 03 355 9179 or sjw@stgeorges.org.nz

### Radiology – CT Scan and X-Ray

St George's Radiology 03 355 6070 or stg.bookings@prg.co.nz

## Our locations

### Christchurch clinic

Milford Chambers St George's Hospital 249 Papanui Road Christchurch 8014

Freephone: 0800 500 405 Phone: 03 355 3041 SMS: 027 355 3041 Email: reception@scip.co.nz

All private surgery is carried out at our Christchurch clinic at present.

### Wellington clinic

JAG Legal Building Level 1 119 Queens Drive Lower Hutt 5010

Freephone: 0800 504 405 Phone: 04 589 9853 SMS: 027 589 9853 Email: scip.wellington@scip.co.nz

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