

## ADULT FROM COUNTRIES OUTSIDE OF SOUTH AFRICA PROTOCOLS AND PROCEDURES FOR COCHLEAR IMPLANT BY TYGERBERG HOSPITAL-STELLENBOSCH UNIVERSITY COCHLEAR IMPLANT UNIT

Thank you for your interest in our Cochlear Implant Unit at Tygerberg Academic Hospital-Stellenbosch University, Cape Town.

### 1. THE MIRACLE OF COCHLEAR IMPLANTATION

Cochlear Implantation is a wonderful technology which makes it possible for deaf individuals to access sound and is described by many as a modern-day miracle. It is also expensive to acquire and maintain and requires dedication, high levels of motivation and family support in order to achieve the best possible outcome.

*Successful cochlear implant use is dependent on full commitment from you, your family, and the team*

There are a number of assessments and visits to medical health professionals which are necessary in order to establish whether cochlear implantation is the best treatment option for you.

Ensuring the best outcomes for each individual is our goal, so our team is careful in selection of appropriate candidates for cochlear implantation. The assessment process and selection criteria we use are in keeping with internationally established protocols.

It should be noted that the most critical factors determining a good outcome are the duration of deafness, previous use of hearing aids, mode of communication (oral or signing) and in the case of a child, the age of the child. Cochlear implantation is contra-indicated in the case of older children and adults who do not use spoken language and sign language is their primary mode of communication.

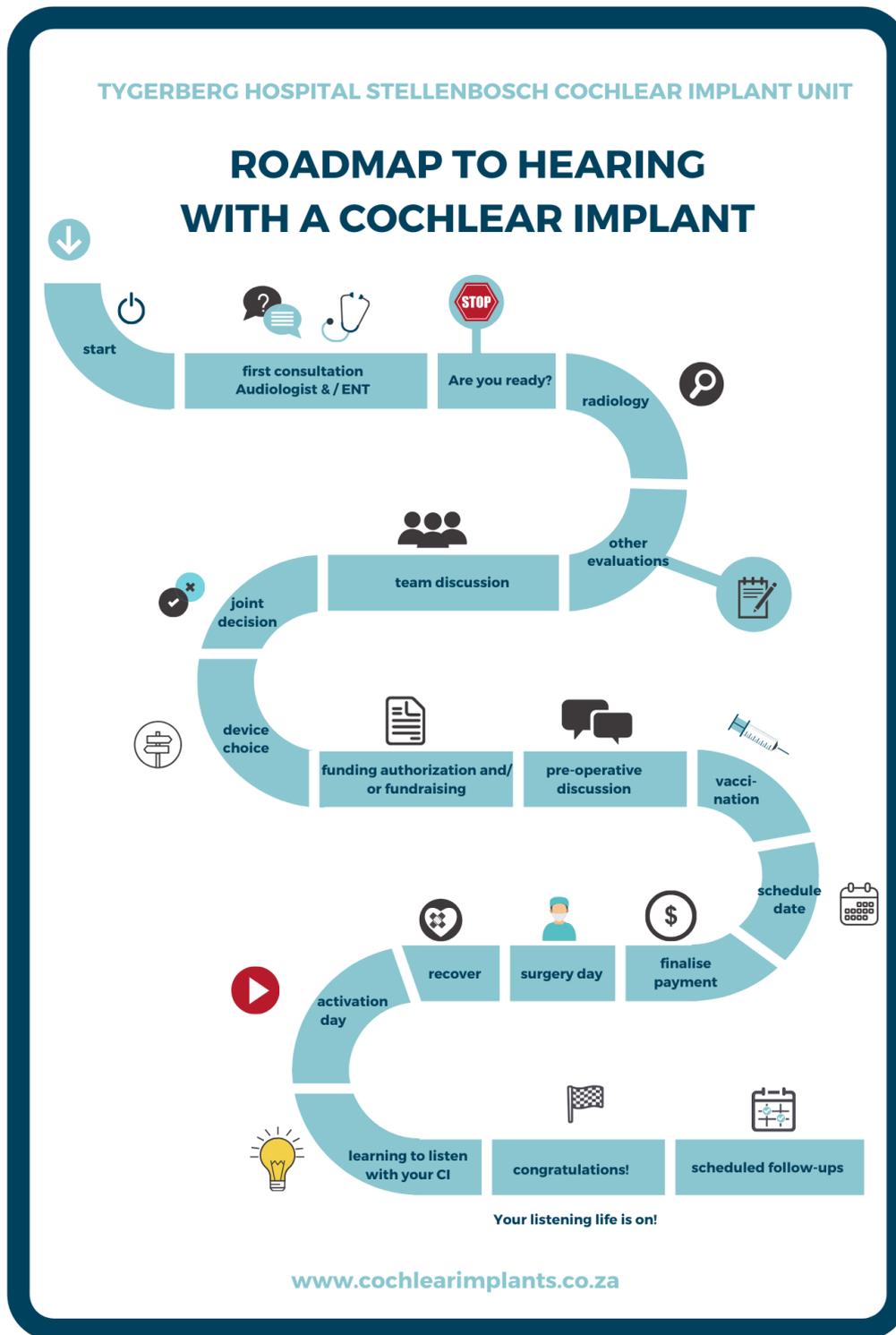
### 2. HOW DOES IT WORK GETTING A COCHLEAR IMPLANT AT OUR UNIT?

Figure 1 demonstrates the roadmap to hearing with a cochlear implant (page 2).

#### a. **STEP 1 – ASSESSMENT**

The assessment process that occurs in Cape Town for at least two weeks for the following procedures and appointments include the following:

Audiological Assessment	Medical Assessment	Feasibility Assessment
<ul style="list-style-type: none"> <li>· Comprehensive hearing assessment (with and without hearing aids)</li> <li>· Speech-Language assessment if indicated</li> </ul>	<ul style="list-style-type: none"> <li>· Ear, Nose and Throat Investigation</li> <li>· Radiology</li> <li>· Other if indicated</li> </ul>	<ul style="list-style-type: none"> <li>· Access to Rehabilitation</li> <li>· Adherence to Mapping schedule</li> <li>· Financial resources</li> <li>· Social work</li> <li>· Communication resources (stable internet, couriers).</li> </ul>



The

Figure 1. Visual representation of the journey to hearing with a cochlear implant at our CI Unit.

**Assessment process includes:**

- An appointment with an audiologist from Tygerberg Hospital-Stellenbosch University Cochlear Implant Unit. A full history is taken, and the relevant information gathered. You will need to bring all relevant medical reports and history.
- Further hearing tests which will include behavioural and objective hearing tests.
- It is assumed that you will have already been fitted with hearing aids in your own country. If not, a trial period with appropriately fitted hearing aids will need to be arranged prior to your appointment with us.

- Appointment with an ENT surgeon who will assess your medical suitability for cochlear implantation and make arrangements for the radiological assessment.
- Radiology – this will be done during the first week. This is in order to assess whether implantation is possible and includes CT scan and MRI scan of internal auditory structures and brain.
- To ensure successful use of a cochlear implant, adequate access to financial resources are a critical component in the long term, in particular for patients from outside of South Africa. We need to safeguard that a cochlear implant is in the best interest of you and your family.

*Costs include*

PRE-IMPLANT COSTS	IMPLANT COSTS	POST IMPLANT COSTS	VISIT COSTS	POSSIBLE UNPLANNED EXPENSES
<ul style="list-style-type: none"> <li>• Audiological Assessments</li> <li>• ENT appointments.</li> <li>• Other assessments</li> <li>• CT and MRI <b>scans</b></li> </ul>	<ul style="list-style-type: none"> <li>• Theatre, hospital</li> <li>• ENT surgeon, Anaesthetist, medicine,</li> <li>• Cochlear implant system</li> </ul>	<ul style="list-style-type: none"> <li>• Mapping.</li> <li>• ENT appointments.</li> <li>• Maintenance costs (replacements and repairs)</li> <li>• Upgrades</li> </ul>	<ul style="list-style-type: none"> <li>• Accommodation</li> <li>• Visa</li> <li>• Transport</li> <li>• Interpreter costs and arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Courier fees</li> <li>• Visits</li> <li>• Retention options</li> <li>• Insurance</li> <li>• Internet</li> </ul>

Added to the implant system specific costs, you will need to be able to demonstrate intent and resources to allow for:

- a. Costs of assessment process and hospital visits (see attachment for estimated costs)
- b. Cost of the device (approximately R230 000- 300 000.00 for one system)
- c. Costs and ability of travelling, accommodation and visa requirements for the
  - assessment,
  - surgery,
  - subsequent programming of the device (every **3 months** for first year, **annually** thereafter assuming no problems arise between visits.
- d. If the patient is not fluent in English, an interpreter is required and the arrangements and costs of this will need to be borne by the individual.

**b. DECISION ABOUT COCHLEAR IMPLANT**

A monthly team meeting is held with all team members where the evidence is reviewed and a decision made as to whether cochlear implantation is recommended. Specific device options are discussed as available within our team.

**c. STEP 2 - SURGERY**

The surgery is when the internal cochlear implant electrode array is inserted. This is arranged by the ENT surgeon and audiologist. It is approximately a 3-hour procedure (if one implant is being done). An overnight stay in hospital may be required.

**d. STEP 3 - PROGRAMMING OF EXTERNAL SOUND PROCESSOR**

Approximately 2-3 weeks after the surgery, activation of the external device is done, where the sound processor is fitted. You will need to be in Cape Town for a minimum of 2-3 weeks from the day of activation for the fitting process and rehabilitation. Follow up visits are every 3 months for the first year. You will need to be in Cape Town for **1-2 weeks** during these visits. Follow-up visits are **required annually** thereafter. These visits may include appointments with the other team members.

### 3. ASSESSMENT FOR COCHLEAR IMPLANTATION AT THE TYGERBERG HOSPITAL- STELLENBOSCH UNIVERSITY COCHLEAR IMPLANT UNIT - OUR TEAM

Our unit was established in 1986 and is comprised of a highly skilled, professional medical and rehabilitation team who endeavour to provide the most appropriate management of your hearing loss within a multidisciplinary context. Figure 2 demonstrates the depth of our team with team members including Ear Nose and Throat Surgeons, Audiologists, Speech and Language Therapists, as well as other health professionals.

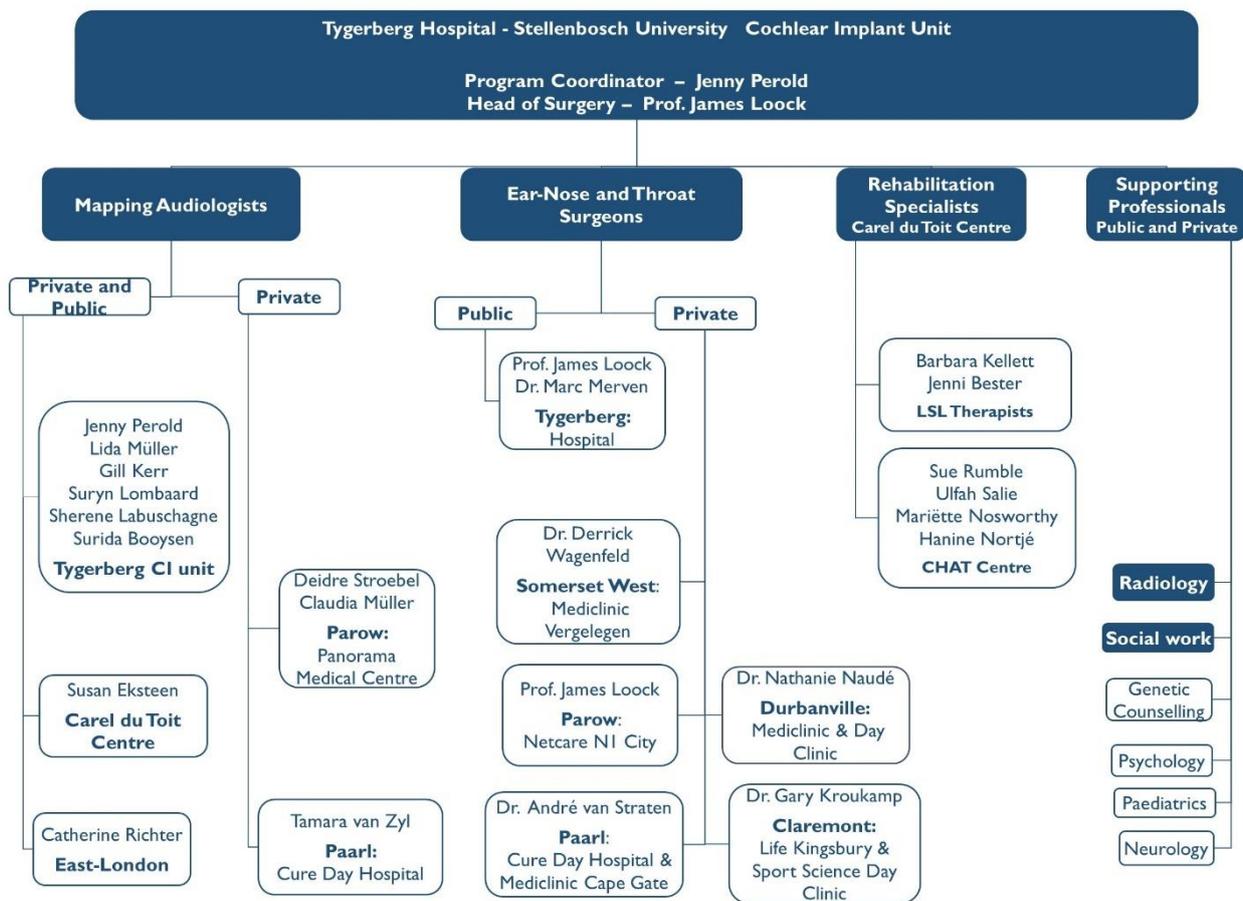


Figure 2. Core members of the TBH-SU- CIU team.

### 4. STILL INTERESTED?

If you feel the above-mentioned factors are possible for you, we encourage you to make contact with us for an assessment appointment.

For more information, please look at our website: [www.cochlearimplants.co.za](http://www.cochlearimplants.co.za). If you would like to make contact with other patients who are in a similar situation please let us know. We are able to put you in touch with other recipients.