EnginEars - the hearing implant program for kids

PART THREE
Welcome to EnginEars

EnginEars is a hearing implant program that helps babies, children and teenagers with moderately-severe to profound hearing loss. It includes a range of hearing implant options and a complete suite of services that addresses the child’s hearing loss, their speech and language, cognitive, social, emotional and physical development, and their educational needs. Each child is regularly assessed and monitored and their program tailored to their individual needs. Once their education is complete, the young adult can continue to access cochlear implant and associated services for the rest of their life.

The ESIA Hearing Implant Centre and the School of Special Educational Needs: Sensory (SSEN:S) work in partnership to deliver EnginEars. Each institute has a well-established service; SSEN:S has provided education services to the hearing impaired since 1949 and ESIA has specialised in hearing implantation for over 10 years. EnginEars has three convenient locations in Subiaco, Padbury and Hamilton Hill. EnginEars is unique. It provides a consistent and highly supportive environment that our children ‘grow up within’, developing relationships with our staff and familiarity with our co-located facilities from an early age. This consistency ensures they remain settled through early intervention, education and their transition through adolescence into adulthood, giving them every opportunity to develop to their full potential.
This guide

This booklet gives you information about EnginEars, our hearing implant program. It explains each stage of the program, who is involved at each stage, the services we offer and where to go next.

Our primary focus for all our little EnginEars is to give them the best hearing possible so that they may experience and enjoy life to the full. Our team of specialists are here to support your child and family throughout your journey together.
The program

The EnginEars program covers all stages of cochlear implantation including:

- Audiological, medical, speech and language and educational assessment to determine if your child would benefit from cochlear implants
- Cochlear implant surgery
- Switch-on of the implant including audiological programming and counselling post surgery
- Lifelong audiological and rehabilitation management and support
- Early childhood services and educational support
- Ongoing support for your family

Our program is run by an experienced team including ear, nose and throat surgeons, radiologists, paediatric audiologists, implant audiologists, educational audiologists, speech and language pathologists, school psychologists, Parent Liaison Officer and intake coordinators. Depending on your child’s needs, we may involve other professionals to ensure the best outcomes for your child.
The EnginEars program
- overview

Switch on (2 weeks after surgery)

Audiology mapping
Approx. 12 appointments in first year

Speech and language therapy
Approx. 12 appointments in first year

Early childhood and educational support

ENT review

Bi-annual review or as required

Bi-annual review or as required

Bi-annual review or as required

Review weekly, individually or in group sessions

Evaluation

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Approx. 12 appointments in first year

Speech and language therapy
Approx. 12 appointments in first year

ENT review

Early childhood and educational support

Evaluation

Bi-annual review or as required

Bi-annual review or as required

Bi-annual review or as required

Review weekly, individually or in group sessions
All children undergo a comprehensive medical, audiological and speech and language assessment when being evaluated for a cochlear implant. At the end of these assessments, the team will meet to discuss the results and determine whether your child is suitable for a cochlear implant or another implantable hearing device.

The assessment results and the recommended course of action will be fully discussed with you to help you make an informed decision. Throughout the evaluation process our Parent Liaison Officer will support you with any questions or concerns you may have. Through our mentor program you can meet other parents with children who have received cochlear implants.

If you decide to proceed with cochlear implantation, your surgeon will explain the process and book in your child’s surgery.
Through the years, extensive research has proven that the benefits of cochlear implantation outweigh the risks involved. Your surgeon will discuss the details of the surgical procedure with you, including such risks, prior to the operation.

With children, cochlear implantation is often performed with a one-night stay in hospital. The paediatric ward staff are very supportive and will take you and your child on a tour through the hospital to familiarise you with the surroundings and the procedure, ensuring that you are all well-prepared and know what to expect.

The surgery takes approximately two to three hours and anaesthesia is administered by a specialist paediatric anaesthetist. The implant audiologist will attend. Some tests are performed during the procedure to confirm that the implant is working and to measure the auditory (hearing) nerve’s response to sound. These measurements are used later on during the switch-on of the device.

For a few days following surgery, your child will wear a special bandage covering the implant. The surgeon will see them for a follow-up appointment, during which he will inspect the wound and remove the bandage. The surgeon will confirm whether the switch-on can proceed two weeks later.
Switch-on of the cochlear implant

The switch-on of the device normally takes place two weeks after surgery. This appointment will typically be with the audiologist and speech pathologist. The implant audiologist uses the intra-operative measurements from the theatre to create a ‘map’ or program for switch-on. Your child’s behavioural response to the sound is also measured.

The initial program is deliberately quite soft, to provide your child with a more comfortable introduction to hearing and enough time to gradually adjust to their new world of sound. The first rehabilitation goal is for your child to notice when there is sound in their environment. You will be asked to help them become aware of voices and environmental sounds and using their voice to communicate. Over time, during subsequent ‘mapping’ appointments, the levels of sound stimulation are increased and the program becomes more suitable for your child’s specific hearing development.
Cochlear implants need to be programmed according to your child’s individual needs. Over the first few months, changes occur inside the cochlear and the part of the brain that perceives sound. Mapping appointments are required more frequently over this period so that we can see how your child is adjusting to sound and make adjustments that optimise their hearing.

The feedback we receive from you, as parents/carers, and the team, including your child’s teachers and speech pathologist, guide us in the mapping process. We also provide ongoing training to help you manage the device and equipment. It is very important that the equipment functions optimally to provide the best possible hearing outcome for your child.

Rehabilitation sessions are conducted with you so you can support your child. The focus is on the development of listening skills using the device along with speech and language skills. Parents/carers are active participants in the sessions, learning and practising strategies that can help their child learn in everyday activities. Goals are developed for each individual child to help them progress through milestones towards improved spoken communication skills.
Early childhood services and educational support

The Western Australian Education Department provides educational and support services to children with hearing impairment throughout childhood and adolescence.

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<thead>
<tr>
<th>Age</th>
<th>Program/service</th>
<th>Where</th>
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<tbody>
<tr>
<td>0 – 3 years</td>
<td>Playgroup and individual sessions</td>
<td>SSEN:S Early Childhood Service (Padbury or Southwell Primary School)</td>
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<tr>
<td>3 – 4 years</td>
<td>Lighthouse Littlies pre-kindergarten group</td>
<td>SSEN:S Early Childhood Service (Padbury or Southwell Primary School)</td>
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<td>4 – 5 years</td>
<td>Kindergarten</td>
<td>Mainstream kindergartens with visiting teacher</td>
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<td></td>
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<td>SSEN:S Early Childhood Service (Padbury or Southwell Primary School)</td>
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<tr>
<td>5 – 11 years</td>
<td>Pre-primary and Primary School</td>
<td>Mainstream local school with visiting teacher</td>
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<td>Mosman Park School for Deaf Children (Auslan and spoken English)</td>
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<td>12 – 17 years</td>
<td>High School</td>
<td>Mainstream local school with visiting teacher</td>
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<td>Shenton College Deaf Education Unit or Belmont City College Deaf Education Unit</td>
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Early intervention

The Early Childhood Service provides a comprehensive early intervention program for children aged 0-4 years with a hearing loss.

You will have the opportunity to engage in individual and/or group activities to promote your child’s language, cognitive, social, emotional, and physical development.

Communication opportunities are offered across the continuum of spoken and signed language.

The Early Childhood Service aims to equip your family with the skills to enable your child to successfully access and participate in your local kindergarten program and eventually at your school of choice.
Early childhood programs
Your child can attend a playgroup or the Lighthouse Littlies program. If eligible, they can also access individual sessions with a teacher of the deaf. These sessions are conducted at Padbury or Southwell Primary School or, in some circumstances, at home. When your child reaches kindergarten age they may be eligible to receive sessions in your local school. If you live in a rural or remote area you are able to access these sessions via Skype.

School-aged children
School-aged children with hearing impairment have a choice of educational settings available to them, including:

• Full inclusion in a mainstream school with a visiting teacher of the deaf and/or educational assistant, depending on individual needs, or
• Placement in primary or secondary deaf education facilities offering additional services on an individual needs basis

The visiting teacher of the deaf works with student services, families and school staff to help deaf and hard of hearing students reach their academic and social potential. The team provides a coordinated approach focused on delivering holistic educational programs that work to achieve specific goals for each student.

Student Services is an interdisciplinary team comprising educational audiologists, school psychologists, speech pathologist, access and equity coordinator, in-house interpreters (Auslan) and intake coordinators.
Family support

The EnginEars team is here to support you and your child throughout their childhood and adolescence. Once their education is complete, the ESIA Hearing Implant Centre supports you and your child throughout their adult life. There are three initial points of contact.

Educational intake coordinator at SSEN:S

The intake coordinator is the first point of contact for families and manages all aspects of your child’s referral, initial educational appointments and an internal case conference until enrolment in an educational program or service is recommended.

Parent liaison service at the ESIA Hearing Implant Centre

The decision to proceed with a cochlear implant for your child can at times be daunting.

You are welcome to contact our Parent Liaison Officer for a confidential discussion over the phone or at our clinic. We aim to assist you, in whatever way we can, in choosing the best pathway for your family.

Mentor Program

The EnginEars program has parents available for you to meet and discuss their experiences of cochlear implants and the process involved. We try to match your situation as best we can with theirs to ensure they can share similar experiences, however every child’s situation is unique. If you would like to enquire about meeting parents of children with cochlear implants please email kids@hearingimplantcentre.org.au or phone (08) 6380 4944.
About us

About the ESIA Hearing Implant Centre
Founded in 2004, the ESIA Hearing Implant Centre pushes the boundaries of implantable hearing devices to achieve better hearing outcomes for children and adults. Our highly respected and experienced team provides diagnoses and complex hearing solutions for people with severe hearing impairment. We work closely with device manufacturers and conduct clinical research on the outcomes of implantation, ensuring our clients always have the latest technology and rehabilitation services available to them.

From assessment through implantation and ongoing rehabilitation, our aim is to empower and enhance the lives of those with significant hearing loss to allow them to make the most out of every day. We are committed to fostering long-term relationships with each and every client and proactively maintain contact through education events, support groups, technology updates and regular communications.

We form part of the Ear Science Institute Australia, a not-for-profit organisation dedicated to improving the lives of those with hearing loss through ground breaking research programs and education, community and clinical services.

More information is available at www.hearingimplantcentre.org.au

About the School of Special Educational Needs: Sensory (SSEN:S)
The SSEN:S (formerly the WA Institute for Deaf Education (WAIDE) is one of three special education needs schools, (the other two being the School of Special Education Needs: Disabilities and the School of Special Education Needs: Medical and Mental Health). These three schools are part of the Statewide Services Branch of the Department of Education, Western Australia.
SSEN:S provides educational support for students who are deaf, deaf-blind, hard of hearing or have a vision impairment. Services are delivered to students in public and private schools, through deaf education facilities, and in the home for children younger than school age.

More information is available at www.ssens.wa.edu.au

**Where to go next**

If you have any further questions, or if your child has been diagnosed with a hearing loss and you are interested in discussing an assessment, our Parent Liaison Officer is available to meet with you or discuss further questions over the phone. Contact the ESIA Hearing Implant Centre on (08) 6380 4944 or email kids@hearingimplantcentre.org.au.
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