



## PROCEDURE

### Otoscopy

<b>Scope (Staff):</b>	Community health
<b>Scope (Area):</b>	CACH, WACHS

#### Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

### Aim

To assess a client's external auditory canal and tympanic membrane as a component of a broader ear health assessment.

### Risk

Non-compliance with the procedure may result in:

- delay or failure to identify and treat ear conditions, with possible hearing loss, developmental issues, and long term impacts.<sup>1</sup>
- compromising client safety.

### Background

Otoscopy is part of comprehensive ear health and hearing screening for children. Screening may also include video otoscopy, audiometry and/or tympanometry. The ear health and hearing screening schedule for Western Australian children can be viewed in the *Hearing and ear health guideline*.

Otoscopy allows a physical inspection and assessment of the pinna, ear canal and the tympanic membrane. Normally the canal is pink with a small amount of fine hairs and cerumen.<sup>2</sup> Deviations from normal include inflammation, infection, lesions, scaling, scratches, swelling, occlusion, drainage, discharge, foreign bodies, offensive odour and excessive or impacted cerumen.<sup>2</sup>

Accurate diagnosis of middle ear disorders such as otitis media (OM) requires an assessment of the appearance of the tympanic membrane by otoscope (or video otoscope) plus compliance/admittance or mobility of the tympanic membrane by pneumatic otoscopy or tympanometry.<sup>3</sup>

The tympanic membrane is assessed for colour, translucency, anatomic landmarks, light reflex, contour (position) and for the presence of perforations. Normally the tympanic

membrane is pearly grey to light pink and peripheral blood vessels may be evident.<sup>2</sup> The contour of the tympanic membrane is normally neutral or concave and will be intact.<sup>2</sup> There should be no signs of scarring, opacity or lesions.<sup>2</sup> Anatomical landmarks include identifying the long process of the malleus, the cone of light reflex reflected from where the long process of the malleus connects to the tympanic membrane, and the short process of the malleus.<sup>1</sup> These landmarks may become distorted or absent when fluid has accumulated behind the membrane.<sup>2</sup>

### Key points

- See [Hearing and ear health](#) guideline for screening schedules for WA children.
- Otoscopy is only to be performed by staff who have completed training approved by CAHS-CH or WACHS.
- Nurses should refer to the [Child health](#) and [School health](#) *Hearing and ear health assessment, review, and referral guides* at the end of this procedure. The guidance incorporates consideration of clinical judgment as well as tympanometry, audiometry, and otoscopy results (if performed).
- Otoscopy is to be performed prior to audiometry and tympanometry.
- Otoscopy is not to be performed if there is any evidence of pain or discharge.
- Clinical judgement is important to determine actions required for each child, including the following considerations;
  - parent/caregiver screening question responses
  - otoscopy, audiometry and/or tympanometry results
  - nurse observations
  - teacher observations, as relevant
  - child's risk factors and social circumstances.
- Key health education messages for families, children and school staff are to be provided as appropriate for the audience. See the [Hearing and ear health](#) guideline for key messages.
- If there is evidence that the child is under the care of a relevant health professional, clinical judgement is required about the need for otoscopy and other assessment.
- Nurses are to deliver culturally safe services by providing a welcoming environment that recognises the cultural beliefs and practices of all clients.
- All nurses will refer to the [Nursing and Midwifery Board AHPRA Decision-making framework](#) in relation to scope of practice and delegation of care to ensure that decision-making is consistent, safe, person-centred and evidence-based.
- Community health staff must follow the organisation's overarching Infection Control Policies and perform hand hygiene in accordance with WA Health Guidelines at all appropriate stages of the procedure.

## Equipment

- Otoscope
- Spare batteries and/or charging unit
- Disposable specula of various sizes (same brand as otoscope).

## Process

Steps	Additional Information
<p><b>1. Preparation for screening session</b></p> <ul style="list-style-type: none"> <li>• Check the otoscope for adequate light projection, as inadequate light may cause inaccuracy in findings.</li> </ul>	<ul style="list-style-type: none"> <li>• Switch the otoscope off between uses or remove batteries when the otoscope is not required for a period of time.</li> <li>• Batteries become flat very quickly and may leak if left in the otoscope.</li> </ul>
<p><b>2. Engagement and consent</b></p> <p>Ask parent/caregiver about health history, <b>and/or</b></p> <ul style="list-style-type: none"> <li>• Check parent/caregiver responses in CHS 409-1, CHS409-5 or CHS 719.</li> <li>• Ask the teacher about any hearing or ear health concerns for individual children.</li> <li>• Explain the procedure to the child and parent/caregiver, if present. Allow time for discussion of concerns.</li> <li>• Ensure written or verbal parental consent is obtained prior to otoscopy.</li> </ul>	<ul style="list-style-type: none"> <li>• When parent/caregivers are present, encourage involvement with the procedure, where possible.</li> <li>• See, <i>Hearing and ear health</i> guideline for ear health history guide.</li> </ul>
<p><b>3. Prior to otoscopy</b></p> <ul style="list-style-type: none"> <li>• Infants and young children should sit on parent/caregiver's lap. Older children may prefer to stand or sit.</li> <li>• Ask the parent/caregiver to hold the child's head securely against their chest and use their other arm to secure the child's arms and body to stop any sudden movement.</li> <li>• Prepare the child by telling them you are going to look in their ears with the</li> </ul>	<ul style="list-style-type: none"> <li>• When a child is not willing to have the procedure and staff or parent have concerns, discuss referral options with parent/caregiver.</li> </ul>

Steps	Additional Information
otoscope. Show the light by shining over their hand.	
<p><b>4. Otoscopy procedure</b></p> <ul style="list-style-type: none"> <li>• Inspect the outer ear (pinna and lobe) for deviations from normal. <ul style="list-style-type: none"> <li>○ Observe around mastoid process and under ear for infection, swelling or tenderness.</li> </ul> </li> <li>• Choose the largest speculum that will fit comfortably into the auditory canal.</li> <li>• Hold the otoscope in such a way that you can brace your little finger against the child's head or cheek, to prevent any potential damage as a result of sudden movement by the child. A 'pencil grip' at an upward angle ranging from 11 o'clock to 1 o'clock from the child's ear, is recommended.</li> <li>• For infants (up to 12 months) gently pull down and back on the ear lobe to straighten the canal and for children, gently pull the pinna up and back.</li> <li>• Gently insert speculum to the first turn of ear canal, just past the hairs. Inserting the speculum any further may cause pain and possible bleeding.</li> <li>• For infants, take care not to insert the speculum deep into the ear canal.</li> <li>• If discharge or wax from the first ear examined has contaminated the speculum, use a clean speculum for the second ear.</li> </ul>	<ul style="list-style-type: none"> <li>• The examiner's eyes should be at the same level as the child's ear.</li> <li>• If client reports ear pain or discharge is visible, do not proceed.</li> <li>• Consider the following when documenting the results of examination: <ul style="list-style-type: none"> <li>○ Normal external ear</li> <li>○ Normal external auditory canal</li> <li>○ Normal tympanic membrane</li> <li>○ Excessive cerumen</li> <li>○ Occlusion or impacted cerumen</li> <li>○ Lesions</li> <li>○ Discharge</li> <li>○ Inflammation</li> <li>○ Scaling</li> <li>○ Scratches</li> <li>○ Scarring</li> <li>○ Swelling</li> <li>○ Foreign body</li> <li>○ Grommets</li> <li>○ Offensive odour</li> <li>○ Distorted or absent anatomical landmarks</li> <li>○ Deviations of the tympanic membrane: <ul style="list-style-type: none"> <li>- Bulging</li> <li>- Retracted</li> <li>- Perforated – wet or dry</li> <li>- Fluid behind membrane</li> </ul> </li> </ul> </li> </ul>

Steps	Additional Information
	<ul style="list-style-type: none"> <li>• Other observations.</li> </ul>
<p><b>5. Video Otoscopy</b> (if used)</p> <ul style="list-style-type: none"> <li>• Refer to step 3 for undertaking an otoscopy examination.</li> <li>• The external auditory canal must be dry, so that the video otoscopy lens does not fog up.</li> <li>• Situate the video otoscope so that the handle is in a vertical downward position at approximately 5 – 7 o'clock.</li> <li>• View image on the computer screen.</li> <li>• Capture image by pressing the camera button.</li> <li>• Label images with the client's name, and store in client's record according to CAHS-CH or WACHS processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Video otoscopy allows an image of the tympanic membrane to be displayed on a computer and viewed by children and their parents/caregivers, or it can be used as a component of telemedicine.<sup>2</sup></li> <li>• Video otoscopy may be conducted in some settings by staff who have undertaken appropriate training.</li> <li>• Additional client consent may be required, when images are shared and/or in a videoconferencing format. Refer to local processes.</li> <li>• Refer to the manufacture instructions for operational and calibration details.</li> <li>• CAHS staff refer to the <a href="#">Medical equipment repair, maintenance and calibration workflow for CAHS Community Health</a> for advice on calibration of video otoscopy equipment</li> </ul>
<p><b>5. Communicate results with parents</b></p> <ul style="list-style-type: none"> <li>• If parent/caregiver present, discuss otoscopy findings including any concerns.</li> <li>• If parent/caregiver not present: <ul style="list-style-type: none"> <li>○ Contact to discuss if there are any concerns.</li> <li>○ Provide results in writing using CHS 409-6A Results for parents sheet or other relevant form.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• If unable to contact parent/caregiver by phone, follow CAHS-CH and WACHS processes to provide effective communication with family.</li> </ul>
<p><b>6. Referral and review</b></p> <ul style="list-style-type: none"> <li>• Make a clinical judgement about the need for referral based on screening assessments, observations and other relevant information.</li> </ul>	<ul style="list-style-type: none"> <li>• For results that suggest otitis media and related issues, refer to a medical practitioner.</li> <li>• For results that suggest sensory neural hearing loss or ongoing chronic middle ear pathology concerns, refer to Audiology.</li> </ul>

Steps	Additional Information
<ul style="list-style-type: none"> <li>• Consider a review in 4-6 weeks in cases of recent upper respiratory tract infection, unwell or uncooperative.</li> <li>• Provide referral as indicated to medical practitioner, Ear, Nose and Throat (ENT) clinic, audiologist, speech pathologist or other health practitioner.</li> <li>• Include otoscopy results, as well as tympanometry and/or audiometry results if conducted.</li> <li>• Discuss and seek consent for referral from parent/caregiver.</li> <li>• For children at risk, follow up with patient/caregiver to determine if support is needed to action the referral.</li> </ul>	<ul style="list-style-type: none"> <li>• Adherence to CAHS-CH and WACHS clinical handover processes is required when handing over, or referring a client within, or outside of, the health service.</li> <li>• CAHS-CH: The <a href="#">Aboriginal ENT Clinic</a> provides a free specialist ENT service. Include clinic's email in referral: <a href="mailto:cach.earhealthreferral@health.wa.gov.au">cach.earhealthreferral@health.wa.gov.au</a> See clinic information for referral requirements.</li> </ul>

## Documentation

Nurses maintain accurate, comprehensive, and contemporaneous documentation of assessments, planning, decision making and evaluations according to CAHS-CH and WACHS processes.

## Compliance monitoring

Failure to comply with this policy document may constitute a breach of the WA Health Code of Conduct (Code). The Code is part of the [Integrity Policy Framework](#) issued pursuant to section 26 the [Health Services Act 2016](#) (WA) and is binding on all CAHS and WACHS staff as per section 27 of the same act.

Compliance monitoring methods will include:

- Health Service reporting of Universal Child Health Contacts.
- Health Service reporting of Aboriginal Ear Health Assessment.

References
<ol style="list-style-type: none"> <li>1. Coates H, Kong K, Mackendrick A, Bumbak P, Perry C, Friedland P, Morris P &amp; Chunghyeon. <i>Aboriginal, Torres Strait Islander and Pacific Islander Ear Health Manual</i>. Perth: Garnett Passe and Rodney Williams Foundation, 2020.</li> <li>2. Chiocca E. <i>Advanced Pediatric Assessment</i>. Second ed. New York: Springer Publishing Company; 2015.</li> <li>3. Technical Advisory Group. <i>Otitis Media in Aboriginal and Torres Strait Islander Children</i>. Darwin: Menzies School of Health Research; 2020</li> <li>4. Government of Western Australia. <i>WA Child Ear Health Strategy</i>. Perth; 2017.</li> </ol>

5. Centre for Remote Health, 2022. *CARPA Standard Treatment Manual (8th edition)*.
6. Yong M, Panth N, McMahon CM, Thorne PR & Emmett SD. How the World's Children Hear: A narrative review of school hearing screening programs globally. *American Academy of Otolaryngology – Head and Neck Surgery, OTO Open* 2020, 4(2): 1-8.

**Related internal policies, procedures and guidelines**

The following documents can be accessed in the CACH Clinical Nursing Manual: [HealthPoint link](#) or [Internet link](#) or for WACHS staff in the [WACHS Policy Manual](#)

[Hearing and Ear Health](#)

[Audiometry](#)

[Tympanometry](#)

[Factors impacting child health and development](#)

[Physical assessment 0-4 years](#)

[Universal Contact - School Entry Health Assessment](#)

[Universal Contacts – 8 week, 4 months, 12 months, 2 years](#)

**The following documents can be accessed in the [CACH Operational Policy Manual](#)**

[Client identification](#)

[Consent for services](#)

**The following documents can be accessed in the [CAHS Infection Control Manual](#)**

[Hand Hygiene](#)

**The following documents can be accessed in the [WACHS Policy Manual](#)**

Ear tissue spearing, irrigation and ear drop installation procedure

Engagement procedure

Enhanced Child Health Schedule

**The following documents can be accessed in the [Department of Health Policy Frameworks](#)**

[Clinical Governance, Safety and Quality](#)

Clinical Handover Policy ([MP0095](#))

## Otoscopy

Clinical Incident Management Policy ( <a href="#">MP 0122/19</a> )
<b>Related internal CACH <a href="#">resources</a> and <a href="#">forms</a></b>
<a href="#">Ear health school screening – Consent</a> CHS 719
<a href="#">Ear health assessment</a> CHS 423
<a href="#">Ear health assessment results for parents</a> CHS 423A
<a href="#">Clinical Handover/Referral</a> CHS 663
<a href="#">Hearing and ear health assessment, review, and referral guide – Child health</a>
<a href="#">Hearing and ear health assessment, review, and referral guide – School health</a>
<a href="#">Hearing tests and how to help</a> CDS handout
<a href="#">Referral to Community Health Nurse</a> CHS142
<a href="#">School Entry Health Assessment Parent Questionnaire</a> CHS 409-1
<a href="#">School Entry Health Assessment Results for staff</a> CHS409-2
<a href="#">School Entry Health Consultation for Education Support Students</a> CHS 409-5
<a href="#">School Entry Health Assessment Results for parents</a> CHS 409-6A

<b>Related WACHS resources</b>
<a href="#">Child Ear Health Services: Codesign Framework</a>
Ear Health Module 1 – Overview (EHOV EL1) WACHS My Learning
Ear Health Module 2 – Otoscopy (EHOT EL1) WACHS My Learning
Ear Health Module 3 – Tympanometry (EHOT EL1) WACHS My Learning
Ear Health Module 4 – Play Audiometry (EHPA EL1) WACHS My Learning
Ear Health Module 5 – Referrals (EHRE EL1) WACHS My Learning
<b>Related CACH e-Learning</b>
<a href="#">Aboriginal Cultural eLearning (ACeL) - Aboriginal Health and Wellbeing</a>
<a href="#">CACH Ear Health Module 1: Ear Health Assessment and Hearing Screening</a>
<a href="#">CACH Ear Health Module 2: Otoscopy</a>

<a href="#">CACH Ear Health Module 3</a> : Child Health Tympanometry
<a href="#">CACH Ear Health Module 4</a> : School Health Tympanometry
<b>Related external resources (including related forms)</b>
Coates H, Kong K, Mackendrick A, Bumbak P, Perry C, Friedland P, Morris P & Chunghyeon O. Aboriginal, Torres Strait Islander and Pacific Islander <a href="#">Ear Health Manual</a> . Perth: Garnett Passe and Rodney Williams Foundation, 2020.
<a href="#">PLUM and HATS speech resource</a> – Pictures and questions to assist with talking to parents about hearing, speech and language, National Acoustic Laboratories.
<a href="#">Blow-Breathe-Cough Program</a> . Hearing Australia resources for teachers and early childhood educators to promote ear health.
<a href="#">Care for Kid's Ears</a> . A wealth of information and resources for parents, early childhood educators, teachers and health professionals. Includes material in several different language groups.
<a href="#">Otitis Media Guidelines Smartphone App</a> . Created by the Centre for Research Excellence in Ear and Hearing Health of Aboriginal and Torres Strait Islander Children. The App is for use by clinicians and health workers who have responsibility for management of OM in Aboriginal and Torres Strait Islander children – in urban, rural and remote populations.

This document can be made available in alternative formats on request.

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## Healthy kids, healthy communities

Compassion
Excellence
Collaboration
Accountability
Equity
Respect

Neonatology | Community Health | Mental Health | Perth Children's Hospital



## Hearing and Ear Health Assessment, Review, and Referral Guide – Child Health

This guide supports decision-making by CACH and WACHS Community Health nurses regarding hearing and ear health assessment, review, and referral. The information in this child health focused resource relates to Universal screening, Universal Plus, and ECHS (WACHS only) assessments of children who are not developmentally able to perform audiometry.

For guidance regarding children who are able to perform audiometry, see [Hearing and Ear Health Assessment, Review, and Referral Guide – School Health](#).

Factors requiring consideration include tympanometry, audiometry and otoscopy results (if performed), responses to the hearing surveillance questions, parent/caregiver/teacher concerns, and the client's hearing and ear health risk factors, general observations, individual health, and social circumstances. Thorough consideration and documentation of all these factors will lead to appropriate referrals when concerns are identified. **Note that clinical judgement may override the guidance listed below.**

Nurses will conduct hearing and ear health screening in accordance with the [Hearing and ear health](#) guideline and [Audiometry](#), [Otoscopy](#), and [Tympanometry](#) procedures in the Clinical Nursing Manual.

**Concerns** regarding hearing and/or speech and language development and risk factors for hearing and ear health may be identified during Universal screening or may be the reason for a Universal Plus assessment. See [Hearing and ear health](#) guideline, p. 4 and 5 for signs and risk factors for poor hearing and ear health, and Table 3 for screening questions and observations. The presence or absence of concerns identified from hearing and ear health surveillance questions, general observations, or parent/caregiver feedback is indicated as 'Concerns' or 'No concerns' in the tables below.

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### CACH and WACHS Referral information

#### Table Legend

Return to Universal or ECHS hearing and ear health screening
Review required, and for referral to GP if indicated
Referral required

**Table 1 - WA children under 6 months: Universal, ECHS, and Universal Plus assessments**

	Surveillance questions, general observations, parental concerns	Otoscopy	Audiometry	Tympanometry	Outcomes
<b>INITIAL</b>	<b>No concerns</b>	Not performed	N/A	Not performed	<ul style="list-style-type: none"> <li>Continue with Universal or ECHS hearing and ear health screening pathway</li> </ul>
	<b>Concerns</b>	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Attempt assessment again in 4-6 weeks</li> </ul>
		Normal	N/A	Normal	<ul style="list-style-type: none"> <li>Refer to GP for referral to Audiology if concerns with hearing</li> </ul>
		Abnormal	N/A	Normal	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
		Normal or Abnormal	N/A	Abnormal	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
	<p><b>Note: If the NEWBORN HEARING SCREEN (NBHS) was not performed, or if the infant failed their first NBHS and has not attended the follow-up appointment, advise parent/caregiver to contact the WA NBHS Program Coordinator on: Ph - 6456 0037.</b></p>				
<b>REVIEW</b>	<b>Concerns</b>	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Refer to GP for referral to Audiology</li> </ul>
	<b>Concerns resolved</b>	Normal	N/A	Normal	<ul style="list-style-type: none"> <li>Continue with Universal or ECHS hearing and ear health screening pathway</li> </ul>
		Abnormal	N/A	Normal	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
		Normal or Abnormal	N/A	Abnormal	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
	<b>Concerns</b>	Normal	N/A	Normal	<ul style="list-style-type: none"> <li>Refer to GP for referral to Audiology if concerns with hearing</li> </ul>
		Abnormal	N/A	Normal	<ul style="list-style-type: none"> <li>Refer to GP and suggest referral to Audiology if concerns with hearing</li> </ul>
		Normal or Abnormal	N/A	Abnormal	<ul style="list-style-type: none"> <li>Refer to GP and suggest referral to Ear, Nose and Throat (ENT) services</li> </ul>

**Table 2 - Aboriginal children and children with risk factors under 6 months: Universal, ECHS, and Universal Plus assessments**

	Surveillance questions, general observations, parental concerns	Otoscopy	Audiometry	Tympanometry	Outcomes
<b>INITIAL</b>	Concerns or no concerns	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Attempt assessment again in 4-6 weeks</li> </ul>
	No concerns	Normal	N/A	Normal	<ul style="list-style-type: none"> <li>Continue with Universal or ECHS hearing and ear health screening pathway</li> </ul>
	Concerns	Normal	N/A	Normal	<ul style="list-style-type: none"> <li>Refer to GP and suggest referral to Audiology for hearing concerns</li> </ul>
		Abnormal	N/A	Normal	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
		Normal or Abnormal	N/A	Abnormal	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
<b>Note: If the NEWBORN HEARING SCREEN (NBHS) was not performed, or if the infant failed their first NBHS and has not attended the follow-up appointment, advise parent/caregiver to contact the WA NBHS Program Coordinator on: Ph - 6456 0037</b>					
<b>REVIEW</b>	No concerns	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Continue with Universal or ECHS hearing and ear health screening pathway</li> </ul>
	Concerns	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Refer to GP and suggest referral to Audiology for hearing concerns</li> </ul>
	Concerns resolved	Normal	N/A	Normal	<ul style="list-style-type: none"> <li>Continue with Universal or ECHS hearing and ear health screening pathway</li> </ul>
		Abnormal	N/A	Normal	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
		Normal or Abnormal	N/A	Abnormal	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
	Concerns	Normal	N/A	Normal	<ul style="list-style-type: none"> <li>Refer to GP and suggest referral to Audiology if concerns with hearing</li> </ul>
		Abnormal	N/A	Normal	<ul style="list-style-type: none"> <li>Refer to GP and suggest referral to Audiology if concerns with hearing</li> </ul>
Normal or Abnormal		N/A	Abnormal	<ul style="list-style-type: none"> <li>Refer to GP and suggest referral to ENT services</li> </ul>	

**Table 3 - WA children from 6 months age until developmentally able to perform audiometry: Universal, ECHS, and Universal Plus Assessments**

	Surveillance questions, general observations, parental concerns	Otосcopy	Audiometry	Tympanometry	Outcomes
<b>INITIAL</b>	No concerns	Not performed	N/A	Not performed	<ul style="list-style-type: none"> <li>Continue Universal or ECHS hearing and ear health screening pathway</li> </ul>
	Concerns	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Attempt assessment again in 4-6 weeks.</li> </ul>
		Normal or abnormal	N/A	Type A	<ul style="list-style-type: none"> <li>Refer to Audiology</li> <li>Refer to GP if indicated</li> </ul>
		Normal or abnormal	N/A	Type B normal	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
		Abnormal	N/A	Type B high volume	<ul style="list-style-type: none"> <li><u>Grommet in-situ and patent</u>: No review required. If concerns about hearing, advise follow-up with their ENT service provider.</li> <li><u>Perforation</u>: No review required. Refer to GP unless perforation is documented and long-standing.</li> </ul>
		Normal or Abnormal	N/A	Type B low volume	<ul style="list-style-type: none"> <li>Reposition tympanometer and test again as probe may be against wall of ear canal</li> <li>Refer to GP for removal of wax or foreign body if present</li> <li>Review 1-2 weeks post-removal of wax or foreign body</li> </ul>
		Normal or Abnormal	N/A	Type C	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Implement Blow, Breathe, Cough program</li> <li>Refer to GP if indicated</li> </ul>
<b>REVIEW</b>	Concerns	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Refer to GP if indicated</li> <li>For referral to Audiology if concerns with hearing</li> </ul>
	Concerns resolved	Normal	N/A	Type A	<ul style="list-style-type: none"> <li>Return to Universal or ECHS hearing and ear health screening pathway</li> </ul>
		Abnormal	N/A	Type A	<ul style="list-style-type: none"> <li>Refer to GP if indicated</li> </ul>
		Normal or Abnormal	N/A	Type B normal	<ul style="list-style-type: none"> <li>Refer to GP</li> <li>For referral to Audiology</li> </ul>

**Table 3 (continued) - WA children from 6 months age until developmentally able to perform audiometry: Universal, ECHS, and Universal Plus Assessments**

<b>REVIEW</b>	<b>Concerns resolved</b>	Normal or Abnormal	N/A	Type B high	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
			N/A	Type B low	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
			N/A	Type C	<ul style="list-style-type: none"> <li>Refer to GP if indicated</li> </ul>
	<b>Concerns</b>	Normal or Abnormal	N/A	Type A	<ul style="list-style-type: none"> <li>For referral to Audiology if concerns with hearing</li> <li>Refer to GP if indicated</li> </ul>
	<b>Concerns</b>	Normal or Abnormal	N/A	Type B normal	<ul style="list-style-type: none"> <li>Refer to GP</li> <li>For referral to Audiology if concerns with hearing</li> </ul>
			N/A	Type B high	<ul style="list-style-type: none"> <li>For referral to Audiology if concerns with hearing</li> <li>Refer to GP for concerns about recent perforation</li> <li><b>NOTE:</b> No need to review or refer patent grommets</li> </ul>
			N/A	Type B low	<ul style="list-style-type: none"> <li>Refer to GP</li> <li>For referral to Audiology if concerns with hearing</li> </ul>
			N/A	Type C	<ul style="list-style-type: none"> <li>Refer to GP</li> <li>For referral to Audiology if concerns with hearing</li> </ul>

**Table 4 - Aboriginal children and children with risk factors from 6 months age until developmentally able to perform audiometry: Universal, ECHS, and Universal Plus Assessments**

	Surveillance questions, general observations, parental concerns	Otосcopy	Audiometry	Tympanometry	Outcomes
<b>INITIAL</b>	Concerns or no concerns	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Attempt assessment again in 4-6 weeks</li> </ul>
	No concerns	Normal	N/A	Type A	<ul style="list-style-type: none"> <li>Continue Universal or ECHS hearing and ear health screening pathway</li> </ul>
	Concerns	Normal	N/A	Type A	<ul style="list-style-type: none"> <li>For referral to Audiology if concerns with hearing</li> </ul>
	Concerns or no concerns	Abnormal	N/A	Type A	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
		Normal or Abnormal	N/A	Type B normal	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
		Abnormal	N/A	Type B high volume	<ul style="list-style-type: none"> <li>Grommet in-situ and patent: No review required. If concerns about hearing, advise follow-up with their ENT service provider.</li> <li>Perforation: No review required. Refer to GP unless perforation is documented and long-standing.</li> </ul>
		Normal or Abnormal	N/A	Type B low volume	<ul style="list-style-type: none"> <li>Reposition tympanometer and test again as probe may be against wall of ear canal</li> <li>Refer to GP for removal of wax or foreign body if present</li> <li>Review 1-2 weeks post-removal of wax or foreign body</li> </ul>
		Normal or Abnormal	N/A	Type C	<ul style="list-style-type: none"> <li>Review in 4-6 weeks and refer to GP if indicated</li> <li>Implement Blow, Breathe, Cough program</li> </ul>
<b>REVIEW</b>	No concerns	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Continue with Universal or ECHS hearing and ear health screening pathway</li> </ul>
	Concerns	Unable to perform	N/A	Unable to perform	<ul style="list-style-type: none"> <li>Refer to Audiology if concerns with hearing</li> <li>Refer to GP if indicated</li> </ul>
	Concerns resolved	Normal	N/A	Type A	<ul style="list-style-type: none"> <li>Return to Universal or ECHS hearing and ear health screening pathway</li> </ul>
		Abnormal	N/A	Type A	<ul style="list-style-type: none"> <li>Refer to GP if indicated</li> </ul>
		Normal or Abnormal	N/A	Type B normal	<ul style="list-style-type: none"> <li>Refer to GP and Audiology</li> </ul>
N/A	Type B high		<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>		

**Table 4 (Continued) - Aboriginal children and children with risk factors from 6 months age until developmentally able to perform audiometry: Universal SEHA screening, ECHS, and Universal Plus assessments**

<b>REVIEW</b>	<b>Concerns resolved</b>	Normal or Abnormal	N/A	Type B low	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
			N/A	Type C	<ul style="list-style-type: none"> <li>Refer to GP if indicated</li> </ul>
	<b>Concerns</b>	Normal	N/A	Type A	<ul style="list-style-type: none"> <li>Refer to Audiology if concerns with hearing</li> </ul>
			Abnormal	N/A	Type A
		Normal or Abnormal	N/A	Type B normal	<ul style="list-style-type: none"> <li>Refer to GP</li> <li>Refer to Audiology if concerns with hearing</li> </ul>
			N/A	Type B high	<ul style="list-style-type: none"> <li>Refer to Audiology if concerns with hearing</li> <li>Refer to GP for concerns about recent perforation</li> <li><b>NOTE:</b> No need to review or refer patent grommets</li> </ul>
			N/A	Type B low	<ul style="list-style-type: none"> <li>Refer to GP</li> <li>Refer to Audiology if concerns with hearing</li> </ul>
			N/A	Type C	<ul style="list-style-type: none"> <li>Refer to GP</li> <li>Refer to Audiology if concerns with hearing</li> </ul>

## CACH Referral information

**GP referral** is generally required to access ENT clinics and PCH Audiology. Nurses should familiarise themselves with local hearing and ear health services, and their referral requirements.

In their referral to the GP, nurses may suggest a further referral if indicated to PCH ENT clinic, PCH Audiology, or Aboriginal ENT clinic. Include the referral email address if known.

### **Audiology**

**PCH Audiology** can provide services for clients aged under 6 months.

**CDS Audiology** provides services to clients aged 6 months and over. See [Child and Adolescent Health Service | CAHS - Referrals and eligibility](#)

See CDIS User Guide for [Recording Referrals](#)

### **AHT Ear Health Services**

Visit the [Aboriginal Health Team page](#) for information about the ear health services they provide. The team can be contacted to enquire about further support for Aboriginal children and families.

### **Speech Pathology (when indicated)**

Refer to Speech Pathology for concerns about speech/language development.

For CDS Speech Pathology referrals, see [Child and Adolescent Health Service | CAHS - Referrals and eligibility](#)

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### **Private service providers**

Parents may prefer to access private Audiology, Speech Pathology, or ENT specialist medical services.

For private Audiology and Speech Pathology services, direct the referral to the parent's preferred service provider. See CDS resource [The right services for your child](#) for professional websites that list some private allied health service providers.

## WACHS referral information

Referral options for hearing and ear health concerns differ across regional WA. WACHS staff are advised to be familiar with the services and referral options in each region and location. Consider WACHS Child Development Services, WACHS Ear Health teams, GPs, Nurse Practitioners, Aboriginal Medical Services, private services providers and non-government agencies that provide services for hearing and ear health concerns.



## Hearing and Ear Health Assessment, Review, and Referral Guide – School Health

This guide supports decision-making by CACH and WACHS Community Health nurses regarding hearing and ear health assessment, review, and referral. The information in this school health focused resource relates to Universal SEHA screening, Universal Plus, and ECHS (WACHS only) assessments of children who are developmentally able to perform audiometry.

For guidance regarding children who are not yet developmentally able to perform audiometry, see the [Hearing and Ear Health Assessment, Review, and Referral Guide – Child Health](#).

Factors requiring consideration include tympanometry, audiometry and otoscopy results (if performed), responses to the hearing surveillance questions, parent/caregiver/teacher concerns, and the client’s hearing and ear health risk factors, general observations, individual health, and social circumstances. Thorough consideration and documentation of all these factors will lead to appropriate referrals when concerns are identified. **Note that clinical judgement may override the guidance listed below.**

Nurses will conduct hearing and ear health screening in accordance with the [Hearing and ear health](#) guideline and [Audiometry](#), [Otoscopy](#), and [Tympanometry](#) procedures in the Clinical Nursing Manual.

**Concerns** regarding hearing and/or speech and language development and risk factors for hearing and ear health may be identified during Universal screening or may be the reason for a Universal Plus assessment. See [Hearing and ear health](#) guideline, p. 4 and 5 for signs and risk factors for poor hearing and ear health, and Table 3 for screening questions and observations. The presence or absence of concerns identified from hearing and ear health surveillance questions, general observations, or parent/caregiver feedback is indicated as ‘Concerns’ or ‘No concerns’ in the tables below.

### Contents

**Table 1** - WA children - developmentally able to perform audiometry

**Table 2** - Aboriginal children and children with risk factors - developmentally able to perform audiometry

### CACH and WACHS Referral information

#### Table Legend

Return to Universal or ECHS hearing and ear health screening
Review required, and for referral to GP if indicated
Referral required

**Table 1 - WA children - developmentally able to perform audiometry:**

	Surveillance questions, general observations, parental concerns	Otосcopy	Audiometry	Tympanometry	Outcomes
<b>INITIAL</b>	<b>Concerns or no concerns</b>	Unable to perform	Unable to perform	N/A	<ul style="list-style-type: none"> <li>Attempt assessment again in 4-6 weeks.</li> <li>Consider having parent present at next screen</li> </ul>
	<b>No concerns</b>	Normal	Normal	N/A	<ul style="list-style-type: none"> <li>Return to Universal or ECHS hearing and ear health screening pathway</li> </ul>
	<b>Concerns or no concerns</b>	Unable to perform	Unable to perform	N/A	<ul style="list-style-type: none"> <li>Attempt assessment again in 4-6 weeks.</li> <li>Consider having parent present at next screen</li> </ul>
		Not normal	Normal	N/A	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
		Normal or Abnormal	Abnormal	N/A	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>No tympanometry at this stage</li> <li>Advise parent/school that child currently has hearing loss</li> <li>Refer to GP if indicated</li> </ul>
<b>REVIEW</b>	<b>Concerns</b>	Unable to perform	Unable to perform	Unable to perform	<ul style="list-style-type: none"> <li>Refer to Audiology</li> <li>Refer to GP if indicated</li> </ul>
	<b>Concerns resolved</b>	Normal	Normal	N/A	<ul style="list-style-type: none"> <li>Return to Universal or ECHS ear health screening pathway</li> </ul>
	<b>Concerns</b>	Normal	Normal	N/A	<ul style="list-style-type: none"> <li>Refer to GP for ongoing concerns</li> </ul>
	<b>Concerns or no concerns</b>	Normal	Abnormal	Type A	<ul style="list-style-type: none"> <li>Complete 500Hz and 2000Hz as expanded screen is required</li> <li>Refer to Audiology for possible risk of sensory neural hearing loss. Include all results in referral to enable priority appointment</li> </ul>
		Normal or Abnormal	Normal	Type Bs – all Type C	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
Abnormal	Type Bs – all Type C		<ul style="list-style-type: none"> <li>Complete 500Hz and 2000Hz as expanded screen is required</li> <li>Refer to GP</li> <li>Refer to Audiology</li> </ul>		

**Table 2 - Aboriginal children and children with risk factors - developmentally able to perform audiometry:**

	Surveillance questions, general observations, parental concerns	Otосcopy	Audiometry	Tympanometry	Outcomes	
<b>INITIAL</b>	Concerns or no concerns	Unable to perform	Unable to perform	Unable to perform	<ul style="list-style-type: none"> <li>Attempt assessment again in 4-6 weeks.</li> <li>Consider having parent present at next screen</li> </ul>	
	No concerns	Normal	Normal	Type A	<ul style="list-style-type: none"> <li>Continue Universal or ECHS screening pathway</li> </ul>	
	Concerns	Normal	Normal	Type A	<ul style="list-style-type: none"> <li>Refer to GP for ongoing concerns</li> </ul>	
	Concerns or no concerns	Normal or Abnormal	Normal	Abnormal	Normal or abnormal	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Advise parent/school that child currently has hearing loss</li> <li>Refer to GP if indicated</li> </ul>
			Abnormal	Normal	Normal or abnormal	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>
		Normal or Abnormal	Normal	Type B normal volume	<ul style="list-style-type: none"> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>	
		Abnormal	Normal or Abnormal	Type B high volume	<ul style="list-style-type: none"> <li><u>Grommet</u> in-situ and patent: No review required. If concerns about hearing, advise follow-up with ENT service provider.</li> <li><u>Perforation</u>: No review required. Refer to GP unless perforation is documented and long-standing.</li> </ul>	
		Normal or Abnormal	Normal or Abnormal	Type B low volume	<ul style="list-style-type: none"> <li>Reposition tympanometer and test again as probe may be against wall of ear canal</li> <li>Refer to GP for removal of wax or foreign body if present</li> <li>Review 1-2 weeks post-removal of wax/foreign body</li> </ul>	
Normal or Abnormal	Normal or Abnormal	Type C	<ul style="list-style-type: none"> <li>Implement Blow, Breathe, Cough program</li> <li>Review in 4-6 weeks</li> <li>Refer to GP if indicated</li> </ul>			
<b>REVIEW</b>	No concerns	Unable to perform	Unable to perform	Unable to perform	<ul style="list-style-type: none"> <li>Refer to GP if indicated</li> </ul>	
	Concerns	Unable to perform	Unable to perform	Unable to perform	<ul style="list-style-type: none"> <li>Refer to Audiology</li> <li>Refer to GP if indicated</li> </ul>	
	No concerns	Normal	Normal	Type A	<ul style="list-style-type: none"> <li>No further action required</li> </ul>	
	Concerns	Normal	Normal	Normal	Type A	<ul style="list-style-type: none"> <li>Refer to GP for ongoing concerns</li> </ul>
			Abnormal	Normal	Type A	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
	Concerns or no concerns	Normal or Abnormal	Normal	Normal	Type B's or C	<ul style="list-style-type: none"> <li>Refer to GP</li> </ul>
Abnormal			Abnormal	Type A	<ul style="list-style-type: none"> <li>Complete expanded screen 500Hz and 2000Hz as required</li> <li>Priority referral to Audiology as results may suggest a sensory neural hearing loss.</li> </ul>	
Abnormal			Abnormal	Type B's or Type C	<ul style="list-style-type: none"> <li>Complete 500Hz and 2000Hz as expanded screen is required</li> <li>Refer to GP and Audiology</li> </ul>	

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