DETECTION OF HEARING LOSS (CODEPEH) With representatives from: The Spanish Association of Paediatrics, The Spanish Society of Otolaryngology and FIAPAS (codepeh@gmail.com)		Progressive, late-onset, or acquired hearing loss in children	
CONFEDERACIÓN ESPAÑOLA DE FAMILIAS DE PERSONAS SORDAS ENTANDO INCLUSIÓN. APOYANDO PERSONAS. AVANZANDO SOLIDARIAMENTE. E SPANISH CONFEDERATION OF FAMILIES OF DEAF PEOPLE (FIAPAS)	MINISTERIO DE DERECHOS SOCIALES Y AGENDA 2030 MINISTRY OF SOCIAL RIGHTS AND 2030 AGENDA ROYAL BOARD ON DISABILITY	School	
мотны Inclusion. Supporting People. Арчанстия Тодетнев. CELLENCE INNOVATION SUSTAINABILITY Pantoja, 5 (Local) - 28002 Madrid - Tel.: 91 576 51 4 fiapas@fiapas.es - www. Available at http://bibliote	.fiapas.es 📑 🖄 📘 🞯 🖍		
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The list provided includes the FIAPAS Federations and Confederated Associations as of November 2023. (For the most up-to-date contact details: www.fiapas.es)

**POSTNATAL HEARING LOSS** 

Postnatal hearing loss is a hearing disorder that is detected after birth, but the time of onset may not be known.

There are three types: progressive, late-onset, and acquired.

In addition to these, there are those attributed to a lack of sensitivity of the technology used, or to a lack of compliance or adherence to the protocols established for hearing loss detection.

## Hearing assessment

Progressive and late-onset hearing loss. Progressive hearing loss is already present at birth and goes unnoticed as detection is not possible because of limitations in the technology used for screening. The explanation for this is that mild or restricted hearing losses at certain auditory spectrum frequencies may not be detectable until months or years later when they progress and become recognisable, both symptomatically and in hearing tests.

Late-onset hearing loss, on the other hand, passes newborn screening because it is not present at the time when this is performed. Therefore, at birth, hearing is normal. However, the aetiology that determines its occurrence already exists at birth in a latent form that will develop into hearing loss in the future.

Both forms can be caused by genetic or infectious causes, or by inner ear malformations.

Acquired hearing loss. Acquired hearing loss occurs from supervening causes, which were not present at birth and lead to hearing loss, such as trauma, infection, ototoxic disorders, autoimmune disorders, or exposure to loud noise.

## Causes of late diagnosis

Late diagnosis of hearing loss may be due to limitations in screening technology or errors in implementation of the recommended protocol.

Technology-related limitations may be due to the degree or frequency of hearing loss, the time of its occurrence, whether it is conductive hearing loss or from other causes that result in a "false negative".

In addition, children who do not complete the recommended assessments after an abnormal hearing test may be lost to follow-up. This situation also affects children with or without identified risk factors who pass the initial screening. Process losses arise from lack of awareness or understanding, language or communication barriers for families, as well as access barriers, cultural barriers and/or financial constraints. They may also be due to inadequate data collection in medical records.

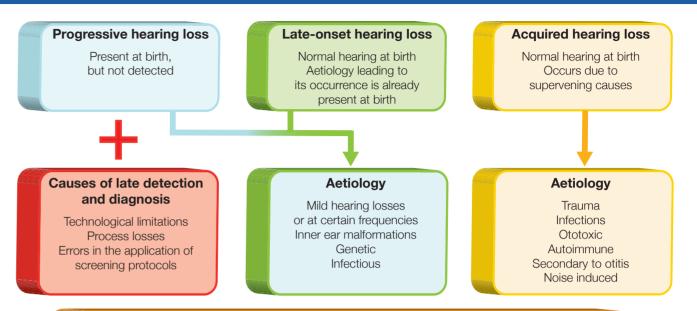
### Preventive strategies

- Hearing screening tests are a valuable tool, but they're not foolproof.
  - It should be ensured that children with identified risk factors for hearing loss and those who fail screening are assessed and monitored according to established protocols. This requires clear and effective communication and support to overcome access and economic barriers.
  - At the social and family level, the key is the provision of culturally sensitive care and consideration of the beliefs or concerns of families about hearing loss and therapeutic interventions.
  - Most postnatal hearing loss has no recognisable risk factors.

Therefore, other initiatives are required such as hearing tests beyond the neonatal period, for example, during infant health checks, at the time of school entry, and at the start or end of each educational stage.



Commission for the Early Detection of Hearing Loss - CODEPEH



#### **RECOMMENDATIONS FOR EARLY DETECTION AND DIAGNOSIS**

Comprehensive medical history Ongoing training of professionals Verify correct recording of screening result Adequate information for guardians Make appointments before hospital discharge. Flexibility and appointment reminder Address language barriers Family aid and support Promote genetic screening Perform cytomegalovirus screening Compliance with vaccination schedule Perform hearing studies after head trauma Hearing monitoring after use of ototoxics Timely and early treatment of infections Adequate care for secretory otitis Raise awareness of noise injuries and the use of headphones or other electronic devices

## AREAS FOR APPLICATION OF POSTNATAL SCREENING

# Suspicion by family, caregivers and/or educators

"Healthy Child"

programme

At each health check, assess

Hearing skills

Middle ear status

Developmental milestones

No response to familiar sounds and voices Delay and/or alterations in speech and language development Lack of attention to noisy toys, storytelling or games with verbal interaction Delay in learning and/or changes in school performance

## School health programme

Targeted questionnaires Computer applications to perform hearing tests Hearing tests

The early detection programme for hearing loss in children should be set up as a continuous hearing prevention service throughout childhood, both to monitor cases that "do not pass" newborn screening and those with hearing risk factors, and for detecting postnatal hearing loss.

<sup>\*</sup> The content of this brochure is merely informational. Lex artis must at all times align with the most up-to-date knowledge through the study of the scientific literature and be adapted to the context of each child.