

Did you know?

- The prevalence of PHL is about two per 1000 children at birth, rising to three to four per 1000 children at five years of age.
- The developmental impact of PHL can be mitigated with access to intervention by six months of age.
- Children whose risk is non-congenital or late in onset may be referred to IHP.
- Today's technology allows us to accurately diagnose hearing loss within 48 hours of birth.
- Children with mild hearing loss and hearing loss in only one ear also require timely intervention.
- When health care professionals consistently enquire about hearing status and reinforce the IHP recommendations to families, it can have a strong and positive impact on parents who might otherwise decline followup services.

Auditory Neuropathy Spectrum Disorder (ANSD) is now being diagnosed in about 10 per cent of infants with PHL:

ANSD is a set of pathologies that disrupt timing of signals from the inner ear to the auditory nerve. ANSD can cause any severity of PHL, as well as marked distortion of sound. Causes include genetic anomalies, perinatal hypoxia, hyperbilirubinemia, or infections.

For information about Regional Ontario IHP offices, please go to:

www.ontario.ca/infantheating



Early hearing detection and intervention in Ontario

Information for health care professionals

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Permanent hearing loss (PHL) is one of the most common congenital disorders. The goals of the Ontario Infant Hearing Program (IHP) are: screening of all newborns by one month of age, detailed audiometry by three months for those who do not pass the initial screening, and if appropriate, intervention before six months of age. Intervention involves providing services and supports so families can make informed decisions regarding hearing technology (e.g., hearing aids), signed or manual languages (e.g., American Sign Language) and other methods for communication development. The “1-3-6” goals are widely endorsed internationally.

1 – 3 – 6

Screening by one month of age

Assessment by three months of age

Intervention by six months of age

When health care professionals are familiar with the risk indicators for acquired PHL, they are able to direct the family to timely audiometric assessment and IHP intervention.



IHP early childhood high-risk indicators for acquired or late-onset PHL:

- Caregiver concern: hearing or speech development
- Cisplatin chemotherapy
- (Congenital) Cytomegalovirus infection (CMV,CCMV)
- Congenital diaphragmatic hernia (CDH)
- Extracorporeal membrane oxygenation (ECMO)
- Hyperbilirubinemia with exchange transfusion
- Meningitis (with hospital admission)
- Mumps infection with high fever
- Severe perinatal hypoxia/asphyxia
- Skull fracture (with hospital admission)

Syndromes associated with late-onset PHL:

- Alport
- Branchio-oto-renal (BOR, Mondini dysplasia)
- Charcot-Marie-Tooth
- Neurofibromatosis II
- Pendred (large vestibular aqueduct, LVA)
- Stickler
- Usher

Note: The above lists are not exhaustive.

There are other risk indicators associated with congenital hearing loss. Child newcomers may be at risk due to genetic, socio-economic and environmental factors that are not typical of the Canadian health care experience. Risks might include measles, rubella or high doses of ototoxic aminoglycoside antibiotics.