### The Québec Newborn Hearing Screening Program

Between 4 and 6 of every 1,000 babies are born with some degree of hearing loss in one or both ears. Parents and caregivers of hearing-impaired infants may not realize for some time that their children have a hearing loss. The Québec Newborn Hearing Screening Program offered by Ministère de la Santé et des Services sociaux makes it possible to detect hearing problems in newborn infants. This free program will eventually be offered to all babies born in Québec who are eligible for public health insurance through Régie de l'assurance maladie du Québec.

The program is designed to detect deafness in the very first months of life, so the necessary intervention can occur promptly. Screening is quick and there's no discomfort or risk for the child. The test is usually administered within hours of birth, when your newborn is quiet or asleep. You will receive the results as soon as the test is finished, and you'll also be informed if other tests are needed.





# Québec Newborn Hearing Screening Program

After your baby is born, you'll be invited to take part in the Québec Newborn Hearing Screening Program.

#### The decision to participate or refuse is up to you.

You'll be able to ask questions and take time to think it over, if necessary. You will be asked to fill out a consent form indicating your decision.

For more information on the program, you can contact Services Québec by phone at **1877 644-4545 (toll free)** 

For persons with a hearing or speech impairment: 1 800 361-9596 (toll free)



#### Deafness

Deafness is the inability to hear sounds. Some people are born deaf, others lose their hearing later in life. Certain factors can cause deafness—or it may have no obvious cause.

Deafness can be related to a malformation or malfunctioning of the outer ear, middle ear, or inner ear. There are varying degrees of deafness. It can affect the ability to hear certain sounds (such as deep or high-pitched ones), or all sounds.

Lastly, some types of hearing loss are temporary and can be treated medically, while other types are permanent.









## Tests used to screen for hearing loss

The most commonly used screening procedure involves **otoacoustic emissions**. The person administering the test places a tiny device in your baby's ear. It emits sounds and records the ear's response, which reflects back like an echo.



If your child doesn't pass the otoacoustic emissions test, or if certain risk factors for deafness are identified, a different procedure, the **auditory brainstem response**, will be used. In this case, the screener inserts a small device in the baby's ear and puts three self-adhesive sensors on the child's head. The device makes sounds and using these sensors, records the response.

With both tests, the response is automatically recorded in minutes. Your child is considered to have passed the screening if the expected response is recorded for both ears.

## PHASES of the Hearing Screening Program

#### For a newborn born in a hospital

- 1 An initial screening test is done shortly after birth. Two attempts can be made before the newborn leaves.
- 2 If the screening test is not successful, it should be repeated around two weeks later, most often at the hospital of birth. Most newborns pass the screening test the second time round.
- If the screening test is still not successful, a comprehensive audiological evaluation is required.

#### For a newborn born in a birthing centre

- 1 The screening test will be done on an outpatient basis at the hospital affiliated with the birthing centre.
- 2 If the screening test is not successful, a comprehensive audiological evaluation is required.

Most older babies who are seen on an outpatient basis when they are around two weeks old, whether it is their first test (baby born in a birthing centre) or second test (baby born in a hospital), will pass the test at this stage.

#### **Hearing screening results**

If your baby passes the screening test for both ears, it most likely means that your child hears well.

If your baby doesn't pass the screening test at one or two days of age, it doesn't mean that he or she is deaf. In the first 24 to 48 hours after birth, certain factors can interfere with the recording of responses—for instance, if the child is fussing when the test is given or if liquid or debris is temporarily present in the ear canal.

#### **Diagnostic confirmation tests**

If your baby does not pass the screening tests, an audiologist should conduct more in-depth tests to assess hearing ability. These tests will tell you if your child hears normally or if there is hearing loss in one or both ears.

## ADVANTAGES of the Hearing Screening Program

- » Deafness can be detected shortly after birth.
- » Intervention can occur promptly, if needed (hearing aids, strategies to communicate with the child, etc.).
- Testing is quick, painless, and poses no risk to your child.
- » Results are available as soon as the test is finished.

## **DRAWBACKS or LIMITATIONS** of the Hearing Screening Program

- » More than one screening test may be needed.
- You may need to return to the hospital a few times during your baby's first weeks of life.
- Screening tests may not be successful even if the child hears well, requiring more in-depth testing at a facility where a diagnostic confirmation can be made.
- Childhood deafness may not be detected by the screening test, or may develop during a child's early years.

Some parents may worry if their children have to undergo further tests, or while they await test results. Your health professionals are available to discuss your concerns and answer your questions.

#### Parental monitoring

Certain forms of deafness are not detected by the screening test or may develop during a child's early years. Therefore it's important to monitor your child's hearing capability, even if the initial screening test results were good.

If you're concerned about how well your child hears, talk to the professional who is caring for your child; comprehensive tests can be administered at any age.

#### Monitoring by audiologists

Some factors increase the risk that a baby may become deaf.

#### Here are several examples:

- » Deafness in the family
- » Malformation of the head or ears
- » Certain complications at birth
- Certain infections contracted during pregnancy or at birth
- » Presence of a syndrome associated with deafness

If your newborn passed the screening test at birth but one or more risk factors for hearing loss are present, a comprehensive audiological evaluation during baby's first year will be recommended.