



# Newborn Hearing and cCMV in Connecticut: Identifying, Tracking, and Supporting.



Early Hearing Detection and Intervention (EHDI) Program • July 2022

## What is Connecticut EHDI?

The **Early Hearing Detection and Intervention Program (EHDI)** is responsible for ensuring that all Connecticut-born children, ages 0-3 years, receive appropriate and timely newborn hearing screenings, congenital Cytomegalovirus (cCMV) tests, diagnostic hearing evaluations, Birth to Three early intervention services, and family support services to maximize developmental outcomes.

## Why EHDI?

**Congenital Hearing Loss** is one of the most commonly occurring birth defects found in babies. In Connecticut, data collected by EHDI shows that 2.3 babies per 1000 screened had a hearing loss. Unidentified hearing loss during infancy and early childhood may adversely impact development of speech and verbal language skills; social, emotional, cognitive, and academic development; and vocational, social, and economic potential. Our goal is to minimize any developmental delays associated with hearing loss and cCMV through timely hearing detection and intervention.

**Congenital CMV (cCMV)** is the most common infectious cause of birth defects in the United States. According to the CDC, 1 out of 5 babies with cCMV will have symptoms or long-term health problems, such as hearing loss. Hearing loss may progress from mild to severe during the first two years of life, which is a critical period for language learning. EHDI's goal is to ensure that babies are tested, and if positive for cCMV, get the appropriate audiological follow-up that could catch a delayed onset of hearing loss, which is common with cCMV cases.

## EHDI Mission Statement and Strategies

The program uses data collection and analysis; epidemiological case surveillance and management; data quality improvement methods; and outreach, education, and partnership-building with parents, medical providers, early intervention providers, and family-based organizations to meet the below goals of the nationally accepted **1-3-6-9 model**:

- Ensure that all babies receive a newborn hearing screening at birth, or by **one month of age**.
- Ensure that babies who failed their newborn hearing screening also receive cCMV testing.
- Ensure that babies who fail their newborn hearing screenings are evaluated by a pediatric audiologist and receive a diagnostic audiological follow-up test by **three months of age**.
- Ensure that babies diagnosed with a hearing loss receive early intervention services (Connecticut Office of Early Childhood's Birth to Three program) by **six months of age**.
- Ensure families of the deaf or hard of hearing are enrolled in family supports by **nine months of age**.

### KEY POINTS:

- Since January 1, 2003, almost **728,000** infants have been screened for hearing loss. \*
- Developmental delays due to hearing loss may be lessened with timely detection and appropriate hearing intervention services.
- Connecticut law requires all infants to be screened for hearing loss at birth.
- Connecticut law also requires infants who fail their newborn hearing screening be tested for congenital Cytomegalovirus (cCMV).

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## Connecticut Legislation

Connecticut passed a law on **July 1, 2000** that requires all birth facilities to implement a universal newborn hearing screening (UNHS) program for the purpose of screening all babies for hearing loss. As a result, the Early Hearing Detection and Intervention (EHDI) program was established to promote and oversee the UNHS program at the state level and is under the auspices of the Connecticut Department of Public Health (DPH). (C.G.S. § 19a-59). Additional legislation took effect on **January 1, 2016**, which required birthing facilities to test all babies who failed their newborn hearing screening for congenital Cytomegalovirus (cCMV). Promoting and facilitating cCMV testing also falls under the EHDI program umbrella. (C.G.S. § 19a-55)

## Connecticut EHDI Data

### Newborn Hearing Screening (2011-2021):

- 99.1% of babies born in Connecticut have been screened for hearing loss during the past decade.
- 98.6% of these babies were screened before **one month of age**.
- 35,000 – 42,000 babies are screened every year.
- 500 babies per year fail their newborn hearing screening and require diagnostic audiological follow-up.
- 1 in 6 babies who failed their newborn hearing screening at birth were diagnosed with a hearing loss.

### Cytomegalovirus Testing (2016-2021):

- 90.8% of all babies who failed their newborn hearing screening at birth were also tested for cCMV.
- 17 babies per 1000 who failed their newborn hearing screening and were tested for cCMV were positive.
- 2467 babies have been tested for cCMV in accordance with this law.
- 51.2% of all babies identified as having cCMV under this law were later diagnosed with a hearing loss.

### Diagnostic Audiological Follow-up / Identifying Hearing Loss (2011-2021):

- 930 babies were identified as having a congenital hearing loss.
- 64.7% of babies who failed their newborn hearing screening received a complete audiological diagnosis (either with a hearing loss or with adequate hearing levels) before **3 months of age**.
- 2.3 babies per 1000 that received their newborn hearing screen have a congenital hearing loss.

### Early Intervention (2011-2021):

- 91.9% of babies with a hearing loss were referred to Connecticut Birth to Three (B23).
- 67.9% of babies referred to B23 were enrolled in services.
- 46.2% of hearing loss babies enrolled in B23 did so before **6 months of age**.

## Staffing

The program is supported by 2.20 full-time positions.

## Federal Support

The DPH EHDI Program is primarily supported by funds from the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA). A portion of these funds are used to contract with the **American School for the Deaf** ([www.asd-1817.org](http://www.asd-1817.org)) to enroll families in supports to improve overall outcomes by providing direct support, education, and guidance to the parents of children with a hearing loss.

*\*Note – Rudimentary datasets became available 2003 and data standardization began January 1, 2011. Remaining Hearing Data is from 01/01/2011 through 12/31/2021. Congenital CMV data is from 0/01/2016 through 12/31/2021.*

