



Indiana State  
Department of Health

**Early Hearing Detection and Intervention Program**

**Birthing Facility/Hospital  
Policy Manual for Universal Newborn  
Hearing Screening (UNHS)**

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# INDIANA (UNHS/EHDI)

## UNIVERSAL NEWBORN HEARING SCREENING AND EARLY HEARING DETECTION AND INTERVENTION PROGRAM

### Legal Mandate

- Indiana Code 16-41-17-2 states that "... every infant shall be given a physiologic hearing screening examination at the earliest feasible time for the detection of hearing loss."
- Under Public Law 91-1999, screening for hearing loss began on July 1, 2000;
- Hospitals/birthing institutions required to report screening results and referral information to the Indiana State Department of Health each month.

### Mission

- Screen all newborns with state mandated physiologic screening prior to discharge;
- Monitor infants through the EHDI process;
- Provide surveillance on the incidence and prevalence of hearing loss in the state of Indiana;
- Promote public awareness and education about hearing loss.

### Goals

- Screen all infants prior to discharge, preferably before one month of age;
- Complete a diagnostic assessment of infants who do not pass before three months of age;
- Enroll all infants diagnosed with permanent hearing loss in appropriate early intervention before six months of age;
- Ensure that every infant with a hearing loss has a Medical Home.

## HOSPITAL AND BIRTHING INSTITUTIONS RESPONSIBILITIES

- Educate parents about the screening and provide the handout “*The Who, What and Why of the Program*”.
- Determine if any risk factors are present (See TIPS Appendix B);
- If parents have a religious objection to the screening, have them sign the Religious Objection form. A copy of this form must be sent to ISDH with the Monthly Summary Report (See MSR Appendix E );
- Perform the screening in both ears following hospital protocols;
- Document the results of the screening in the chart, including date, result, name of screener, and referrals made, if any;
- Re-screen prior to discharge any infant not passing the initial screen in one or both ears. **Re-screen both ears even if one ear passed on initial screen;**
- Discuss the results of the screening with the parents (see TIPS Appendix B);
- Distribute the Hearing Screening Results (on back of Who, What, Why brochure) to parents following the screening with the results and risk factors documented (see TIPS Appendix B);
- Provide the language and hearing developmental milestones to the parents so they can monitor their child’s progress (See Milestones Appendix C);
- For any infant who did not pass the second screening, distribute the brochure “*What If Your Baby Needs More Hearing Tests?*” (see MSR Appendix E for order form);
- Complete the UNHS portion of the blood spot card. If hearing screening is delayed for any reason, pull out the pink copy and put in the infant’s medical chart. Send the blood spot card in promptly to IU Labs. When hearing screening is completed, fill out the UNHS area on the pink copy and send to IU Labs for data entry (See TIPS Appendix B);
- Document on the EHDI Alert Response System (EARS) all infants who:
  - were not screened for any reason;
  - who did not pass the repeat screening or;
  - who pass but have risk factors for delayed onset hearing loss (See MSR Appendix E).
- Birthing facilities, in collaboration with a baby’s Primary Care Provider (PCP), should arrange for follow-up testing of babies who do not pass UNHS prior to discharge. These babies should be reported to the EHDI Program within five business days of UNHS and to the child’s PCP.
- Birthing facilities should refer babies who pass UNHS but present with one or more risk factors for acquired hearing loss to the baby’s PCP and to EHDI for follow-up at 9-12 months of age.

***If infant PASSES screening and has NO RISK FACTORS:***

- Inform parents of the results;
- Give parents the completed UNHS Results (on the back of the Who, What Why brochure) and provide a copy of the hearing and language milestones;
- Complete the blood spot card;
- Document the results of the screening in the chart, including date, result, name of screener;
- Provide results to PCP.

***If infant PASSES screening, but HAS RISK FACTORS:***

- Inform parents and PCP of screening results;
- Give parents the completed Hearing Screening Results (on the back of the Who, What Why brochure) noting the specified risk factor, and provide the language and hearing milestones;
- Explain to parents that a referral to the PCP will be made for continued monitoring for late onset or progressive hearing loss due to the presence of one or more risk factors: a) family history of permanent childhood hearing loss b) exposure to infection in-utero and c) hyperbilirubinemia that required an exchange transfusion and d) cranio-facial disorders. Ear anomalies may be referred directly for diagnostic testing and do not need to be screened.(See TIPS Appendix B);
- Diagnostic testing should occur when the baby is 9-12 months of age or sooner if there is parental concern;
- Inform PCP **if other risk factors are present** so that the physician can monitor and refer for testing at 9-12 months of age (i.e. spent more than five days in the Neonatal Intensive Care Unit, has a genetic syndrome/condition known to be associated with hearing loss, bacterial meningitis, parent or care giver concern regarding the development of hearing and language);
- Document the results of the screening in the chart, including date, result, name of screener and referrals made;
- Complete the blood spot card;

- Report these infants on the Monthly Summary Report through EARS;
- See the TIPS for Risk Factor Referral for complete instructions.

***If baby DOES NOT PASS screening (refers):***

- If the infant does not pass the initial screening, a second screening must be completed prior to discharge;
- If the infant passes the second screening, proceed as outlined in the section titled “If Infant Passes Screening and Has No Risk Factors”;
- If the infant does not pass the second screening, inform parents verbally and in writing
- Complete the Hearing Screening Results (on the back of the Who, What Why brochure);
- Give them a copy of the brochure “*What If Your Baby Needs More Hearing Tests?*”
- Emphasize that a referral does not necessarily mean that the infant has permanent hearing loss, but that further evaluation is needed (**See section on Communicating Results to Parents**);
- Explain to parents that their baby will be scheduled for an appointment for diagnostic audiology follow-up at a Level 1 audiology center;
- Note screening results and recommendation for diagnostic follow-up in infant’s chart for PCP and hospital staff;
- Schedule the follow-up appointment prior to the baby’s discharge from the hospital and provide the appointment date to the family verbally and in writing on the Hearing Screening Results (on the back of the Who, What Why brochure);
- Document the results of the screening in the chart, including date, result, name of screener and referrals made;
- Enter this baby into the Monthly Summary Report in EARS as soon as possible (within 5 days) to alert ISDH EHDI staff of need for follow
- Enter the appointment date, time and location in the comments section of EARS
- Complete the blood spot card.

## COMMUNICATING RESULTS TO PARENTS

- Follow your hospital's policies regarding who discusses the results with the family;
- Parents need to be informed of results prior to discharge;
- For infants who pass, encourage parents to monitor hearing and language developmental milestones and contact their PCP if concerns arise;
- For infants who do not pass, give parents the brochure "*What If Your Baby Needs More Hearing Tests?*"
- See "Tip Sheet" in Appendix B.

### *Keep what you say simple*

*Avoid using anxiety provoking words like "failed" and "deaf"*

*Reassure the family there are several reasons why the baby might not pass and that diagnostic testing will clarify how the infant is hearing. Follow up should be completed in a timely manner, ideally before 3 months of age*

*Early detection of hearing loss is important for language development*

*Inform parents that the hospital will schedule their baby for follow-up testing prior to the baby's discharge.*

- If you are concerned that a parent has more questions than you are comfortable addressing, provide them with the name of the Regional Audiology Consultant for their area (*See Regional Consultant Appendix A*) or contact the EHDI Program;

***If parents refuse screening:***

- Explain that hearing screening is mandated by state law;
- The only acceptable refusal is one based on religious objection;
- Provide family with written material on the importance of screening (See TIPS Appendix B);
- Provide family with hearing and language developmental milestones so they can monitor language development (See Milestones Appendix C);
- The *Sound Beginnings* video can also be used to help educate parents;
- Have parents sign the religious objection form and include a copy with the Monthly Summary Report to ISDH;
- Document refusal of the screening in the chart;
- Complete the blood spot card;
- Inform PCP of religious objection/refusal;
- Ask the PCP for assistance in educating the family regarding the importance of the screening.

***If infant is not screened prior to hospital discharge for any reason, except religious refusal :***

- Contact family and have them return for the screening as soon as possible, preferably before one month of age;
- Have a standard letter ready and mail to the infant's family and the infant's physician stating the importance of the screening and the need for the family to return to the hospital for this screening;
- If the family does not return for follow-up, contact the Nurse Consultant at ISDH for assistance. This will allow for quicker intervention for the babies who did not receive a screen prior to discharge;
- If the hearing screening equipment malfunctions a back-up plan needs to be in place so that infants can be screened promptly (See TIPS Appendix B).

## ***Sensitivity to Deaf Culture***

Hospital personnel need to be aware of parents who may have a perspective from a cultural model, meaning they do not view being deaf as a disability. Members of the Deaf community, which may include individuals with family members who are Deaf, may not be concerned about the hearing status of their infant. In these cases, hospital personnel should be respectful of their view. Families with this perspective are fully capable providing the child with language, i.e. American Sign Language, and may not see a need to pursue intervention.

However, state law mandates newborn hearing screening. If the baby does not pass the screening, inform the parents of the result and refer as you would for any other baby for follow-up testing.

## ***Transferred Babies***

- The birthing hospital transfers the infant without a hearing screening;
- The receiving hospital screens hearing when infant is medically stable;
- The receiving hospital notifies the birthing hospital of screening results and/or birthing hospital contacts the receiving hospital to obtain screening results;
- This is to be a shared responsibility;
- Both hospitals should report results on the MSR EARS on the Exceptions page;
- Establish a contact with the area hospitals with which your hospital most often shares babies;
- If specific hospital contact information is needed, contact your regional audiology consultant (See Regional Consultant Appendix A).

## **Hospital General Guidelines**

### ***Screening Equipment***

- Two different screening methods are acceptable. Some hospitals use a combination of both. Otoacoustic Emissions (OAE) measure the sound waves generated in the inner ear (cochlea). Automated Auditory Brainstem Response (AABR) measures the response of the entire system up to the brainstem. Both tests are accurate and reliable. Your hospital has selected a method based on resources, available personnel, cost, and the number of babies born
- New recommendation from the Joint Committee on Infant Hearing recommend that all infants in the intensive care nursery (NICU) be screened using AABR

### ***Quality Assurance***

- Referral rates should be approximately 1.5 to 4 percent or less;
- Assure infants with risk factors are identified;
- Ensure appropriate and timely referrals;
- Follow hospital policies regarding infection control;
- Ensure documentation of results;
- Monitor screener competency in administration of screening;
- Monitor hospital staff's competency in communicating results to parents.

### ***Screener Responsibilities***

Evaluate infants to be screened based on established hospital protocol. Factors to consider include: time of birth, estimated discharge time, need for second screen prior to discharge, and infant's activity level. (See TIPS Appendix B)

- Inform parents of the hearing screening and answer any questions;
- Identify any risk factors for hearing loss (See TIPS Appendix B);
- Perform the screening using the equipment and following established protocols and procedures;
- Inform parents of the results of the hearing screening and answer any questions they may have;
- Provide parents with the Hearing Screening Results (certificate) and provide the hearing and language milestones;
- Report any infants who do not pass as recommended (See TIPS Appendix B);

- Report any infants who pass but have risk factors as recommended (See TIPS Appendix B);
- Report any “problem” cases to the supervisor;
- Document UNHS results and risk factors in medical record, hearing screening log, as per your facility’s protocol;
- Complete blood spot card;
- Follow established infection control procedures;
- Use appropriate baby handling skills;
- Recognize problems with screening equipment. Troubleshoot and report unresolved problems to the supervisor immediately;
- Recognize potential problems with the infant that may interfere with the screening;
- Monitor inventory of supplies and report needs to program supervisor.

*The birthing facilities have the responsibility to make certain all staff providing the newborn hearing screening are trained and competent to provide services. All screeners should have an annual review. ( See Screener Guidelines Appendix D for guidelines)*

## ***Documentation/EARS/Monthly Summary Report***

Information from EHDI Alert Response System (EARS) or the MSR report allows ISDH to provide follow-up on all infants who were referred for follow-up or who were not screened for any reason. The method of reporting is the web-based EARS reporting system.

- Results of all newborn hearing screenings, attempts, and/or refusals must be documented in the hospital chart;
- If a religious waiver is signed, a copy should be kept in the hospital chart and a copy sent to ISDH for documentation when using EARS and/or with the MSR;
- The blood spot card should be completed and sent to IU labs.

## ***EARS Reporting***

- When using the EARS system, daily entry of screening results is encouraged;
- ISDH follow-up can begin as soon the infant is entered into the system;
- This allows more timely reporting and improved outcomes for families;
- Daily reporting will facilitate follow-up;
- Daily reporting will lessen the burden on the MSR reporter at the end of the month;
- The Monthly Summary Report must be completed by the 15<sup>th</sup> of the month following the end of the month the infants are screened.

**Please see MSR Appendix E for complete instructions**

## ***FYI: What happens after the hospital refers a baby?***

- Upon referral, a designated hospital representative will assist parents by scheduling an appointment, preferably at a Level 1 audiology facility;
- Diagnostic audiological testing should ideally be completed before the infant is 3 months of age;
- Results of the diagnostic evaluation are reported to ISDH and/or Indiana Birth Defect and Problem Registry by the audiologist and/or PCP;
- Infants with diagnosed hearing loss will be enrolled in early intervention services;
- Infants identified with a hearing loss should have referrals to other medical professionals such as the pediatrician, an otolaryngologist (ENT physician), geneticist, and ophthalmologist.

## Referral Procedures:

### Hospital Procedure for Follow-up of Babies from Universal Newborn Hearing Screening (UNHS)

- 1) For babies who do not pass two UNHS screenings:
  - a. Prior to discharge, facility informs mother of screening results, need for follow-up diagnostic audiology testing, and location(s) of Level 1 Audiology Center(s).
  - b. Facility obtains physician referral (unless “standing orders” exists).
  - c. Facility contacts audiologist to schedule the follow-up testing.
  - d. Facility faxes physician’s referral and hospital referral form to audiologist.
  - e. Facility notifies mother of appointment date and time verbally and in writing and documents follow-up appointment on the discharge summary.\*
  - f. Facility enters child into EARS within 5 business days of second screening and indicates diagnostic audiology appointment location, date and time in the comments section on the Monthly Summary Report (MSR) Exceptions page of EARS.

\*If a child is not scheduled for diagnostic audiology testing prior to discharge (i.e. child is discharged on a weekend when audiology office is not open), the facility should contact the parent to schedule an appointment. If the facility is unable to reach the family by phone *and* schedule the baby within three days of discharge, the facility should fax a referral form (a sample template, Indiana Audiology Referral Form, is attached) to the child’s PCP with “Need assistance in scheduling this child for audiology follow-up” written on the form. The facility should maintain a copy of the faxed document.

- 2) For babies who pass UNHS, but are at risk for delayed onset hearing loss because of an identified risk factor:
  - a. Prior to discharge, facility notifies mother of UNHS results, the identified risk factor, and the need for follow-up diagnostic audiology testing at 9-12 months of age.
  - b. Facility enters child into EARS as an exception within 5 days of UNHS.
  - c. Facility notifies PCP of need for follow-up diagnostic audiology testing at 9-12 months of age (or earlier if concerns arise).

## ***Medical Home for Children Identified With Hearing Loss***

One of the goals of the UNHS/EHDI program is that children identified with hearing loss have a medical home where health care services are accessible, family-centered, continuous, comprehensive, coordinated, compassionate, and culturally-competent.

According to American Academy of Pediatrics, a Medical home is not a building, house, or hospital, but rather an approach to providing health care services in a high-quality and cost-effective manner. Children and their families who have a medical home receive the care that they need from a pediatrician or physician (pediatric health care professional) whom they trust. The pediatric health care professionals and parents act as partners in a medical home to identify and access all the medical and non-medical services needed to help children and their families achieve their maximum potential.

### Accessible

- Care is provided in the child's community
- All insurance, including Medicaid, is accepted and changes are accommodated

### Family-Centered

- Recognition that the family is the principle caregiver and the center of strength and support for children
- Unbiased and complete information is shared on an ongoing basis

### Continuous

- Same primary pediatric health care professionals are available from infancy through adolescence
- Assistance with transitions (to school, home, adult services)

### Comprehensive

- Health care is available 24 hours a day, 7 days a week
- Preventive, primary, and tertiary care needs are addressed

### Coordinated

- Families are linked to support, educational, and community-based services
- Information is centralized

### Compassionate

- Concern for well-being of child and family is expressed and demonstrated

### Culturally Effective

- Family's cultural background is recognized, valued, and respected