



# Newborn Screening News

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## Spotlight on Hemoglobinopathies

by *Nkechi Eke, RN, BSN*  
*Nurse Consultant*

The Texas Newborn Screening Program began in 1963 screening for Phenylketonuria (PKU). In 1979, the Program was expanded to include two other diseases, galactosemia and congenital hypothyroidism. On November 1, 1983, the Texas Department of Health (TDH) began universal screening for hemoglobin disorders (hemoglobinopathies). TDH currently screens for five disorders. The most recent disorder added to the panel was Congenital Adrenal Hyperplasia (CAH).

The goal for the hemoglobinopathy Newborn Screening Program is to reduce the morbidity and mortality in infants and young children with sickle cell disease. This goal, as evidenced by the decreased death rate among children with sickle cell disease, is being accomplished.

*Specimen Collection:* It is important to carefully read and follow the instructions on the filter paper form before specimen collection. All full term babies should have their initial screens collected within 72 hours of birth and within seven days for pre-mature births. Transfused newborns should be re-tested 90 days after transfusion. It is important that a "3" is placed in the box marked "status" to document transfusion because transfusion can cause erroneous test results.

*Screening Process:* Isoelectric focusing (IEF), and High Pressure Liquid Chromatography (HPLC) are used for screening. HPLC is used to confirm IEF results. If a newborn screening result is positive for an abnormal hemoglobin pattern, parents and the health care providers are notified by mail. The letter will also inform them that further testing by DNA analysis would be performed to validate the result. PCR, a DNA testing process, is used to validate the abnormal hemoglobin pattern. This test is

currently performed by the TDH Genetics Laboratory. The DNA test is part of the newborn screening testing protocol. We have received requests from health care providers for the DNA results on newborns. Because the state lab has not applied for certification as a DNA laboratory, we cannot issue a formal DNA lab report.

If you have any questions or comments, please direct them to Nkechi Eke, R.N., B.S.N., or call toll-free 1-800-422-2956, extension 2071, or e-mail [nkechi.eke@tdh.state.tx.us](mailto:nkechi.eke@tdh.state.tx.us) OR Lynette Borgfeld, MT, (ASCP), Newborn Screening Lab Branch Supervisor, extension 2471, e-mail: [lynette.borgfeld@tdh.state.tx.us](mailto:lynette.borgfeld@tdh.state.tx.us)

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## Free Literature

For free literature about Newborn Screening Case Management and Laboratory, please call us toll-free at 1-800-422-2956, extension 2129, or visit the online publications ordering form at: [www.tdh.state.tx.us/newborn/pubs.htm](http://www.tdh.state.tx.us/newborn/pubs.htm)



## Child passenger safety: there is help out there

By *Johnny Humphreys,*  
*children's traffic safety team leader*

Injury, not disease, is the greatest killer of Americans between the ages of 1 to 34. And by a large margin, motor vehicle crashes are the number-one cause of injury-related death for children ages 1 to 14. Former Surgeon General C. Everett Koop stated that if it were a disease that was killing the numbers of people that currently die due to motor vehicle crashes, the public would be outraged and demand that something be done.

Well, the good news is that something can be done. Child safety seats, used correctly and used consistently, can prevent injuries and deaths to children.

Part of the challenge in the field of child passenger safety has to do with keeping up with changes. Some of the current best practices and safety recommendations are as follows:

- C Children should ride rear-facing in safety seats until they reach both 20 lbs and one year of age
- C Children over one year of age and 20 lbs should ride in forward-facing safety seats until they reach 40 lbs.
- C Children over 40 lbs should ride in booster seats using the vehicle's lap/shoulder belts until they reach 80 lbs and about 4'9" tall
- C All children ages 12 and under should ride restrained in the back seat. No child should ever ride in front of an air bag.

There is help out there: the Texas Department of Health Safe Riders Program coordinates child safety seat distribution programs throughout the state for low-income families, conducts training courses and presentations,

conducts child safety seat check-up events and provides free educational materials.

Call Safe Riders at **1-800-252-8255** and request an order form for free, up-to-date child passenger safety materials that are appropriate for young parents. Most materials are available in English and in Spanish. Safe riders' web site is [www.tdh.state.tx.us/injury/safe](http://www.tdh.state.tx.us/injury/safe)

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## Newborn Screening Posters

The Texas Newborn Screening Program is pleased to announce the availability of Newborn Screening Posters. These posters are 16" x 20" with English and Spanish text on front and back. The posters are free of charge and can be ordered by calling 1-800-422-2956, extension 2129, or place your order online at [www.tdh.state.tx.us/newborn/pubs.htm](http://www.tdh.state.tx.us/newborn/pubs.htm)

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