What is Newborn Screening?

Newborn Screening is a simple blood test to help identify babies that may be at risk of having one or more of the disorders on the Texas Newborn Screening Panel.

Why is Newborn Screening important?

Most children appear healthy at birth and are from healthy families. Early treatment of these disorders can prevent serious complications such as:

- Growth problems
- Developmental delays
- Seizures
- Early death

Did you know?

On average, 1 in 400 babies born in Texas is identified to have one or more of the disorders on the Texas Newborn Screening Panel.

Contact Newborn Screening Laboratory

Department of State Health Services
Laboratory Services Section
Mail Code: 1947
PO BOX 149347
Austin, TX 78714-9347

512-776-7333

NewbornScreeningLab@dshs.texas.gov

dhs.texas.gov/lab/newbornscreening.shtm

Providing testing services in support of the Texas Newborn Screening Program.

Early detection of disorders, from a heel stick blood sample, allows early treatment that can prevent serious complications.
### Newborn Screening Overview

Each baby born in Texas is tested for over 50 genetic disorders and hypothyroidism.
- The first screen is collected when baby is 24-48 hours of age
- The second screen is collected when baby is 1-2 weeks of age
- About 380,000 babies are screened each year
- About 750,000 specimens are tested each year

### Testing

- Small dots are punched from dried blood spots to initiate the testing
- Initial results are reviewed and re-tested as necessary
- The Laboratory reports out-of-range results to NBS Clinical Care Coordination staff who begin follow-up protocols
- Results are reported to the submitting provider within 3-4 business days (Monday- Saturday)

### Information About Some Newborn Screening Disorders

<table>
<thead>
<tr>
<th>Name of Disorder</th>
<th>What is the problem?</th>
<th>What is the treatment?</th>
<th>What happens without treatment?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amino Acid Disorders</td>
<td>Body can’t break down certain proteins</td>
<td>May include low protein diet, special medical foods and formula, and medication</td>
<td>Muscle weakness, seizures, intellectual disability, or death</td>
</tr>
<tr>
<td>Fatty Acid Oxidation Disorders</td>
<td>Body can’t break down certain fats and is unable to change some fats into energy</td>
<td>May include low fat diet, frequent food intake, supplementation with L-Carnitine and medium-chain triglycerides</td>
<td>Breathing problems, seizures, coma, or death</td>
</tr>
<tr>
<td>Organic Acid Disorders</td>
<td>Body can’t break down certain proteins and fats</td>
<td>Restricting protein in diet and vitamin supplements</td>
<td>Muscle weakness, breathing problems, seizures, intellectual disability, or death</td>
</tr>
<tr>
<td>Congenital Adrenal Hyperplasia</td>
<td>Body unable to produce certain hormones including cortisol which helps regulate response to stress and blood sugar levels</td>
<td>Lifelong hormone replacement therapy</td>
<td>Dehydration, diarrhea, vomiting, slow growth and development; death, if untreated</td>
</tr>
<tr>
<td>Congenital Hypothyroidism</td>
<td>Body unable to produce enough thyroid hormone</td>
<td>Thyroid hormone replacement therapy</td>
<td>Intellectual and growth disabilities</td>
</tr>
<tr>
<td>Hemoglobin Disorders</td>
<td>Red blood cells can’t efficiently carry oxygen throughout the body</td>
<td>Daily penicillin</td>
<td>Illness, infections, or death</td>
</tr>
<tr>
<td>Biotinidase Deficiency</td>
<td>Body is unable to reuse and recycle the vitamin biotin</td>
<td>Daily dose of biotin</td>
<td>Hearing and vision problems, seizures, delay in development, death in severe cases</td>
</tr>
<tr>
<td>Cystic Fibrosis</td>
<td>Body produces excess mucus that is thick and sticky</td>
<td>May include breathing treatments, physical therapy, medications, proper diet</td>
<td>Breathing and digestive problems, early death</td>
</tr>
<tr>
<td>Galactosemia</td>
<td>Body can’t digest galactose, a sugar found in milk and milk products</td>
<td>Special diet - no milk or dairy products, including breast milk</td>
<td>Seizures, blood infections, liver disease, eye problems, or death</td>
</tr>
<tr>
<td>Severe Combined Immunodeficiency</td>
<td>Body can’t fight off serious and life threatening infections, parts of immune system do not work properly</td>
<td>May include bone marrow transplant, medication, appropriate diet</td>
<td>Difficulty fighting infections, and early death</td>
</tr>
<tr>
<td>X-linked Adrenoleukodystrophy</td>
<td>Body can’t break down certain fats called very long chain fatty acids</td>
<td>May include stem cell transplant, medications, physical therapy, gene therapy, or experimental dietary therapies</td>
<td>Hearing and vision problems, seizures, loss of developmental abilities, and death</td>
</tr>
</tbody>
</table>