What is newborn screening?

Newborn screening is a set of tests that check babies for serious, rare disorders. Most of these disorders cannot be seen at birth but can be treated or helped if found early. The three tests include blood spot, hearing, and pulse oximetry screening.

**Blood spot screening** checks for over 50 rare but treatable disorders. Early detection can help prevent serious health problems, disability, and even death. The box on the right lists the disorders screened for in Minnesota.

**Hearing screening** checks for hearing loss in the range where speech is heard. Identifying hearing loss early helps babies stay on track with speech, language, and communication skills.

**Pulse oximetry screening** checks for a set of serious, life-threatening heart defects known as critical congenital heart disease (CCHD). If detected early, babies with CCHD can often be treated with surgery or other medical interventions.

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**Blood spot screening checks babies for:**

- Arginemia
- Argininosuccinate acidemia
- Beta ketothiolase deficiency
- Biotinidase deficiency
- Carnitine acylcarnitine translocase deficiency
- Carnitine palmitoyltransferase deficiency (2 types)
- Carnitine uptake defect
- Citrullinemia (2 types)
- Congenital adrenal hyperplasia
- Congenital hypothyroidism
- Cystic fibrosis
- Dienoyl-CoA reductase deficiency
- Galactokinase deficiency
- Galactosemia
- Glutaric acidemia (2 types)
- Hemoglobinopathy variants
- Homocystinuria
- Hypermetioninemia
- Hyperphenylalaninemia
- Isovaleryl-CoA dehydrogenase deficiency
- Long-chain hydroxyacyl-CoA dehydrogenase deficiency
- Malonic acidemia
- Maple syrup urine disease
- Medium-chain acyl-CoA dehydrogenase deficiency
- Medium/short-chain hydroxy acyl-CoA dehydrogenase deficiency
- Medium-chain keto acyl-CoA thiolase deficiency
- Methylmalonic acidemia (3 types)
- Mucopolysaccharidosis type I
- Multiple CoA carboxylase deficiency
- Phenylketonuria
- Pompe disease
- Primary T-cell lymphopenias
- Propionic acidemia
- Severe combined immunodeficiency
- Short-chain acyl-CoA dehydrogenase deficiency
- Sickle cell disease
- Sickle-C disease
- S-βeta thalassemia
- Trifunctional protein deficiency
- Tyrosinemia (3 types)
- Very long-chain acyl-CoA dehydrogenase deficiency
- X-linked adrenoleukodystrophy
- 2-Methyl-3-hydroxybutyric acidemia
- 2-Methylbutyryl-CoA dehydrogenase deficiency
- 3-Hydroxy-3-methylglutaryl-CoA lyase deficiency
- 3-Methylcrotonyl-CoA carboxylase deficiency
- 3-Methylglutaconyl-CoA hydratase deficiency
What happens to the remaining blood spots and results after screening?

Following newborn screening, test results and any leftover blood spots are stored to allow for follow-up testing, if needed. Stored blood spots and test results are also used for general program operations, such as making sure screening is accurate, improving test methods, and developing new newborn screening tests. They are not used for research or public health studies without the parent’s written informed consent.

Parents have options regarding the storage of their child’s blood spots and test results. You may request that your child’s blood spots and results be destroyed, or you may request to obtain the blood spots through your child’s primary care provider at any time. You may also choose to allow your child’s blood spots and results to be used for public health studies or research. Ask your provider or visit the Newborn Screening Program website for forms and instructions on how to request these options and for the most up-to-date storage and use practices.

When will I get my baby’s results?

Your baby’s hearing and pulse oximetry screen results will be available on the same day of screening. Be sure to ask your birth provider or the person performing the screen to discuss them with you.

The blood spot screening process takes a few days, but your baby’s primary care provider will contact you as soon as possible if the results suggest a problem. The first well-child visit is also a good time to talk to your baby’s primary care provider about results.

What personal information is written on the screening card and sent to the Minnesota Department of Health (MDH)?

The newborn screening card that is sent to MDH for testing contains only the information about mom and baby that will help staff interpret test results and contact your baby’s primary care provider if more testing or follow-up is needed. This includes, but is not limited to, baby’s name, date of birth, time of birth, mom’s name, and the name of baby’s primary care provider or clinic.

Can I refuse screening for my baby?

Yes. If you do not want your baby screened, you must complete the Parental Refusal of Newborn Screening form. You can ask your birth provider for a copy of the form or download it from the Newborn Screening Program website. You may also choose to arrange for blood spot screening through a private laboratory.

For more information on newborn screening:

Minnesota Newborn Screening
www.health.state.mn.us/newbornscreening

MN Early Hearing Detection & Intervention Program
www.improveehdi.org/mn

Save Babies Through Screening Foundation
www.savebabies.org

Baby’s First Test
www.babysfirsttest.org