

Who should avail this test?

• Ideally every newborn should undergo this test so that many congenital disorders can be diagnosed early. This will help in early treatment measures and prevention of some important disorders which can severely affect the babies health and progress.



• Babies with unclear symptoms which can be due to an undiagnosed genetic disorder.

Methodology



Peripheral blood or Heel prick or cord blood.



DNA extraction



Genomics



Reports

Test Results

Pathogenic variant -
Variant known to cause the disease

Likely Pathogenic variant -
Alterations with strong evidence in favor of pathogenicity

Carrier state -
If only one of the two alleles shows mutation (variation) then it is called as a carrier state (not diseased)

No variant detected -
No gene variant identified (normal report)

References

- ACMG ACT Sheets and Algorithms [Internet]. Bethesda (MD): American College of Medical Genetics and Genomics; 2001-. Newborn Screening ACT Sheets and Algorithms available from: <https://www.ncbi.nlm.nih.gov/books/NBK55827/>
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About Greenarray

Greenarray is a molecular diagnostic laboratory. We offer diagnosis of infectious diseases, genetic testing and healthcare information to improve health and wellness. Our goal is to provide high quality affordable and accessible services.

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Newborn Genetic Screening Test

The first and the most important screening test for your newborn



Newborn Genetic Screening is a special comprehensive panel of genetic test which identifies risk of having rare and serious medical conditions that can affect normal development.

What is "Newborn Genetic Screening"?

- ✓ Newborn Genetic Screening tests screen the rare health disorders in newborn babies.
- ✓ This is the first test of your baby which is done soon after birth for several genetic and metabolic disorders.
- ✓ Early detection of these conditions through Newborn Genetic Screening allows timely diagnosis and it can be helpful to start healthy life.
- ✓ If we find a defect early, we can help to prevent serious conditions like mental retardation or rarely death.
- ✓ Tests are done on a small sample of baby's blood.

Greenarray's Newborn Genetic Screening vs Conventional NBS

Disease group	Disorders	Greenarray's Newborn Genetic Screening (> 400 disorders)	Conventional NBS
Metabolic Disorders	Propionic Acidemia, Phenylketonuria, Medium-chain acyl-CoA dehydrogenase (MCAD) deficiency, Galactosemia, Citrullinemia, Argininosuccinic aciduria, Methylmalonic acidemia, Tyrosinemia, Maple-syrup urine disease (MSUD), Homocystinuria, etc.	✓	✓
Blood Disorders	Thrombocytopenia, Hemophilia, a thalassemia, β thalassemia, Sickle cell disease, etc.	✓	✗
Hearing loss	Charcot-Marie-Tooth Disease with Deafness, Non-Syndromic Hearing Loss, Corneal Dystrophy and Perceptive Deafness, etc.	✓	✗
Immunodeficiency disorders (SCID)	Immunodeficiencies, Omenn syndrome, etc.	✓	✗
Congenital heart defects	Ventricular tachycardia, etc.	✓	✗

Greenarray's Newborn Genetic Screening vs Conventional NBS

Disease group	Disorders	Greenarray's Newborn Genetic Screening (> 400 disorders)	Conventional NBS
Neuromuscular disorder	Spinal Muscular Atrophy, Myopathy, etc.	✓	✗
Pediatric cancers	Xeroderma Pigmentosum, etc.	✓	✗
Epilepsy	Seizures, Pyridoxine-dependent epilepsy, Ceroid Lipofuscinosis, etc.	✓	✗
Vision loss	Retinal Dystrophies, Juvenile Retinoschisis, Retinitis Pigmentosa, etc.	✓	✗
Renal Disorders	Alport Syndrome, Renal Tubular Acidosis, Congenital Adrenal Hypoplasia, Polycystic Kidney Disease, etc.	✓	✗

Why Greenarray's Newborn Genetic Screening ?

- Required Sample Peripheral blood or Heel prick or cord blood
- Comprehensive Panel > 400 disorders covered
- Fast turnaround time
- Highly accurate and sensitive test
- Scientific advice for doctors and genetic counseling for patients, before and after the test.