





BabySecure

Advanced Newborn Screening portfolio to secure the baby from the impact of Inherited **Disorders**



What is BabySecure Newborn Screening and why it is important?

BabySecure Newborn screening test is a simple test done 24 hours after (not before) a baby is born to identify serious disorders the baby might have been born with. These disorders, if undetected and untreated, can have adverse consequences for the baby. If a baby is born with a disorder, BabySecure helps identify it early so that treatment can start before the disorder causes any harm to the baby.

When a BabySecure Newborn Screening test done?

The test is done by performing a painless heel prick on the baby and collecting a few drops of blood, 24 to 72 hours, after birth.

Is there a time limit for the **BabySecure Newborn Screening test?**

No, even if you miss the 72-hour window, you can still do the test. There is no age limit but sooner the better because if a disorder is identified, treatment can start immediately.

Can disorders be prevented?

These disorders are inherited and cannot be prevented but they are treatable. Even healthy looking babies and those with no family history of such disorders may have them. If a baby is born with a disorder, early detection and treatment is the only solution. Failure to start the treatment in time may result in serious consequences.

How the BabySecure Newborn Screening test is performed?

The first step is to make a painless heel prick. A few drops of blood from the baby's heel are then placed on a special type of filter paper. The paper is allowed to dry and is then sent to the lab where tests are performed using Tandem Mass Spectrometry (TMS) and other technologies.







Test details

Test Code	Test Name	Disorders Covered	Sample Type	Turnaround Time (TAT)
MGM2704	Newborn Screening (NBS+) - Comprehensive Panel	65	Dried Blood spots(FTA Cards)	24 - 48 Hours
MGM2705	Newborn Screening 1 (NBS1)	61	Dried Blood spots(FTA Cards)	24 - 48 Hours

BabySecure Newborn Screening Panels

	Disorders	NBS+	NBS1
	Disorders Screened by Tandem Mass Spectrometry (TMS)		
Α	Fatty Acid Oxidation Disorders		
1	Carnitine / Acylcarnitine Translocase Deficiency	✓	✓
2	3-Hydroxy Long Chain Acyl-CoA Dehydrogenase Deficiency	✓	✓
3	Medium Chain Acyl-CoA Dehydrogenase Deficiency	✓	✓
4	Neonatal Carnitine Palmitoyl Transferase Deficiency Type II		✓
5	Very Long Chain Acyl-CoA Dehydrogenase Deficiency	✓	✓
6	Carnitine Palmitoyl Transferase Deficiency Type #	✓	✓
7	2,4-Dienoyl-CoA Reductase Deficiency	\checkmark	\checkmark
8	Multiple Acyl-CoA Dehydrogenase Deficiency	\checkmark	✓
9	Short-chain Acyl-CoA Dehydrogenase Deficiency	✓	✓
10	Trifunctional Protein Deficiency	\checkmark	✓
11	Short chain Hydroxy Acyl-CoA Dehydrogenase Deficiency	✓	✓
12	Medium Chain Ketoacyl-CoA Thiolase Deficiency	✓	✓
В	Organic Acid Disorders		
13	3-Hydroxy-3-Methylglutaryl-CoA Lyase Deficiency	✓	✓
14	Glutaric Acidemia Type I	\checkmark	\checkmark
15	Isobutyryl-CoA Dehydrogenase Deficiency	\checkmark	\checkmark
16	Isovaleric Acidemia	\checkmark	✓
17	2-Methylbutyryl-CoA Dehydrogenase Deficiency	✓	✓
18	3-Methylcrotonyl-CoA Carboxylase Deficiency	\checkmark	\checkmark
19	3-Methylglutaconyl-CoA Hydratase Deficiency	\checkmark	\checkmark
20	2-Methyl-3-Hydroxybutyric Aciduria	\checkmark	\checkmark
	Methylmalonic Acidemias		
21	Methymalonyl-CoA Mutase Deficiency	\checkmark	\checkmark
22	Methylmalonic Acidemia (Cobalamin Disorders)	\checkmark	\checkmark
23	Methylmalonic Acidemia with Homocystinuria	\checkmark	\checkmark
24	Maternal Vitamin B12 Deficiency	\checkmark	✓
25	Mitochondrial Acetoacetyl-CoA Thiolase Deficiency	✓	✓
26	Propionic Acidemia	\checkmark	✓
27	Multiple CoA Carboxylase Deficiency	\checkmark	✓
28	Malonic Aciduria	\checkmark	✓
С	Amino Acid Disorders		
29	Argininemia	✓	✓
30	Argininosuccinic Aciduria	✓	✓

	Disorders	NBS+	NBS1
32	Carbamoylphosphate Synthetase Deficiency#	\checkmark	✓
33	Ornithine Transcarbamylase Deficiency#	\checkmark	✓
34	Citrullinemia	\checkmark	✓
35	Citrullinemia Type II#	\checkmark	\checkmark
36	Homocystinuria	\checkmark	\checkmark
37	Hypermethioninemia	\checkmark	\checkmark
38	Hyperammonemia, Hyperornithinemia, Homocitrullinuria Syndrome#	✓	✓
39	Hyperornithinemia with Gyral Atrophy#	\checkmark	✓
40	Maple Syrup Urine Disease	\checkmark	✓
	Phenylketonuria		
41	Classic Phenylketonuria	\checkmark	\checkmark
42	Benign Hyperphenylalaninemia	\checkmark	\checkmark
43	Defects of Biopterin Cofactor Biosynthesis	\checkmark	\checkmark
44	Defects of Biopterin Cofactor Regeneration	\checkmark	\checkmark
	Tyrosinemia		
45	Transient Neonatal Tyrosinemia	\checkmark	\checkmark
46	Tyrosinemia Type I#	\checkmark	\checkmark
47	Tyrosinemia Type II	\checkmark	\checkmark
48	Tyrosinemia Type III	\checkmark	✓
49	Nonketonic Hyperglycemia#	\checkmark	✓
D	Other Disorders		
50	Liver Disease	\checkmark	✓
51	Carnitine Uptake Deficiency	\checkmark	\checkmark
Е	Other Observations		
52	Hyperalimentation	\checkmark	✓
53	Medium Chain Triglyceride Oil Administration	\checkmark	✓
54	Treatment with Benzoate, Pyvalic Acid, or Valproic Acid	✓	✓
55	Presence of EDTA Coagulants in Blood Specimen	✓	✓
	Disorders Screened by Other Technologies		
56	Congenital Hypothyroidism	\checkmark	✓
57	Galactosemia	\checkmark	\checkmark
58	Congenital Adrenal Hyperplasia	\checkmark	\checkmark
59	Glucose-6-Phosphate Dehydrogenase Deficiency	✓	✓
60	Biotinidase Deficiency	\checkmark	\checkmark
	Phenylketonuria		
61	Cystic Fibrosis	\checkmark	✓
62	Sickle Cell Anemia	\checkmark	×
63	Sickle-C Disease	\checkmark	×
64	S-ßeta Thalassemia	\checkmark	×
65	Hb Variants	\checkmark	×