

# AJO-Neo : Device to Measure Neonatal Bilirubin Level

## Why in News

Recently, researchers from the S.N. Bose National Centre For Basic Sciences (SNBNCBS), Kolkata have developed a device called **"AJO-Neo " to measure neonatal bilirubin level.** 

 SNBNCBS is an autonomous research Institute under the Department of Science and Technology (DST), Government of India.

## **Key Points**

#### Description:

- AJO-Neo is a non-contact and non-invasive spectrometry-based technique for measurement of neonatal bilirubin level without limitations of other available bilirubin meters.
- Bilirubin is a yellowish substance in the blood. It forms after red blood cells break down, and it travels through liver, gallbladder, and digestive tract before being excreted.
  - It is a necessary process in the **body's clearance of waste products** that arise from the destruction of aged or abnormal red blood cells.
- Significance:
  - The screening of bilirubin level in new-borns is necessary to reduce incidents of a type of brain damage called kernicterus that can result from high levels of bilirubin in a baby's blood.
    - Kernicterus leads to **Neuro-psychiatry problems** in neonates.
- Advantages:
  - It is reliable in measuring bilirubin levels in preterm, and term neonates irrespective of gestational or postnatal age, sex, risk factors, feeding behavior or skin color.
    The device delivers an instantaneous report (about 10 seconds) to a concerned doctor.
    - The **conventional "blood test"** method takes **more than 4 hours** to generate the report.

### Source: PIB

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