

Infant Jaundice

Overview:

- Jaundice is yellow discoloration of a newborn baby's skin and eyes, caused by a buildup of the yellow pigment (bilirubin) in the blood.
- This condition usually occurs in preterm babies because their liver isn't mature enough to get rid of the bilirubin in the bloodstream.
- Jaundice in newborns is not a disease in itself and it often disappears within two weeks without any treatment, only requiring some observation.
- In some advanced cases, neglecting treatment could lead to brain damage.
- One of the best ways to prevent infant jaundice is through breastfeeding. Infants should get 8 to 12 feedings a day for the first several days of life.

Introduction:

Infant jaundice is a common condition, - particularly in babies born before 38 weeks' gestation (preterm babies)- caused by the buildup of bilirubin in the bloodstream which is a yellow pigment formed by the breakdown of used red blood cells to be replaced by new red blood cells. Bilirubin is filtered in the liver and then it is expelled with the stool.

Other names:

Newborn Jaundice - Icterus - and hyperbilirubinemia.

Causes:

- Physiological jaundice:

While the fetus is in the womb, the placenta removes the yellow substance (bilirubin) from the body, and after birth, the liver takes over this function. The underdeveloped liver of newborns is not fully functioning yet to efficiently filter bilirubin from the bloodstream resulting in its

accumulation. Most babies between two and four days old are naturally yellowish in color, and the amount of the yellow substance in the body does not exceed 200 micromole/liter. This yellowing often disappears within two weeks.

- **Pathological jaundice:**

- 1- Neonatal jaundice: It appears in the first 24 hours of the newborn's life, and is caused by:
 - The breakdown of blood cells (such as: Rh disease(incompatibility between the mother's blood type and the baby's blood type), and Glucose-6-phosphate dehydrogenase (G6PD) deficiency.)
 - Infection: Before childbirth (such as: Toxoplasmosis, German Measles (Rubella) and Syphilis), After childbirth
 - Crigler–Najjar syndrome.
- 2- Prolonged neonatal jaundice: It lasts for more than two weeks, and more than 21 days in preterm infants, and it is caused by:
 - Infection (such as Urinary tract infection).
 - Hypothyroidism.
 - Digestive tract issues (such as: bile duct problems, and neonatal hepatitis).

Symptoms:

The first sign of infant jaundice is yellow skin and eyes the second day after birth.

When to see a doctor:

The infant will be examined within 72 hours of delivery to confirm jaundice, and the doctor must be consulted immediately if the symptoms develop in any of the following ways:

- The infant's skin becomes more yellow.
- The infant is difficult to awaken.
- The infant isn't gaining weight.
- The infant makes high-pitched cries.
- The infant is feeding poorly or refusing feedings.

- If jaundice lasts more than two weeks.

Diagnosis:

- Physical examination:
- Laboratory tests : Measuring levels of bilirubin in the blood, and any other necessary tests.

Risk factors:

- A family member previously suffered from jaundice.
- Family history of blood diseases.
- Infant malnutrition during the first days of life.
- Premature birth (preterm infants).
- Low birth weight.
- Bruising during birth.
- Incompatibility between the mother's blood type and the baby's blood type.
- Diabetic mothers.

Complications:

When the jaundice lasts more than three weeks, the infant may suffer from the following complications:

- Hearing loss.
- Cerebral palsy and other forms of brain damage.

Treatment:

Infant jaundice often disappears within two weeks without any treatment, only requiring some observation. Treatment is usually recommended only if tests show that the infant has very high levels of bilirubin in the blood



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(more than 200 micromole/ liter). There are two main treatments that can be administered at the hospital:

- Light therapy (phototherapy) The light breaks down the structure of bilirubin molecules so they can be excreted.
- In extreme cases the infant may need an exchange transfusion.

Prevention:

- Infants should be breastfed 8 to 12 times a day for the first several days of life.
- It is important not to miss any medical appointments after birth.
- The newborn must be closely observed during the first 5 days after birth.

Clinical Health Education Department

For further questions kindly contact us via email:

Hpromotion@moh.gov.sa