

# Jaundice in Newborn Babies

A common condition in newborns, jaundice refers to the yellow color of the skin and whites of the eyes caused by excess **bilirubin** in the blood. Bilirubin is produced by the normal breakdown of red blood cells.

Normally bilirubin passes through the liver and is excreted as bile through the intestines. Jaundice occurs when bilirubin builds up faster than a newborn's liver can break it down and pass it from the body. Reasons for this include:

- A newborn baby's still-developing liver may not yet be able to remove adequate bilirubin from the blood.
- More bilirubin is being made than the infant's liver can handle.
- Too large an amount of bilirubin is reabsorbed from the intestines before the baby gets rid of it in the stool.

High levels of bilirubin - usually above 20 mg - can cause deafness, cerebral palsy, or brain damage in some babies. In rare cases, jaundice may indicate the presence of hepatitis. The American Academy of Pediatrics recommends that all infants should be examined for jaundice within a few days after being born.

## **Types of Jaundice**

There are several types of newborn jaundice. The following are the most common:

**Physiological (normal) jaundice:** occurring in more than 50% of newborns, this jaundice is due to the immaturity of the baby's liver, which leads to a slow processing of bilirubin. It generally appears at 2 to 4 days of age and disappears by 1 to 2 weeks of age.

**Jaundice of prematurity:** this occurs frequently in premature babies since they take longer to adjust to excreting bilirubin effectively.

**Breast milk jaundice:** in 1% to 2% of breastfed babies, jaundice can be caused by substances produced in their mother's breast milk that can cause the bilirubin level to rise above 20 mg. These substances can prevent the excretion of bilirubin through the intestines. It starts at 4 to 7 days and normally lasts from 3 to 10 weeks.

**Blood group incompatibility (Rh or ABO problems):** if a baby has a different blood type than the mother, the mother might produce antibodies that destroy the infant's red blood cells. This creates a sudden buildup of bilirubin in the baby's blood. Incompatibility jaundice usually begins during the first day of life. Rh problems once caused the most severe form of jaundice, but now can be prevented with an injection of Rh immune globulin to the mother within 72 hours after delivery, which prevents her from forming antibodies that might endanger any subsequent babies.

## Symptoms and Diagnosis

Jaundice usually appears around the second or third day of life. It begins at the head and progresses downward. A jaundiced baby's skin will appear yellow first on the face, followed by the chest and stomach, and finally, the legs. It can also cause the whites of an infant's eyes to appear yellow.

Since many babies are now released from the hospital at 1 or 2 days of life, parents should keep an eye on their infants to detect jaundice.

A simple test for jaundice is to gently press your fingertip on the tip of your child's nose or forehead. If the skin shows white (this test works for all races) there is no jaundice; if it shows a yellowish color, you should contact your child's doctor to see if significant jaundice is present.

At the doctor's office, a small sample of your infant's blood can be tested to measure the bilirubin level. The seriousness of the jaundice will vary based on your child's age and the presence of other medical conditions.

## When to Call Your Child's Doctor

Your child's doctor should be called immediately if jaundice is noted during the first 24 hours of life, the jaundice involves arms or legs, your baby develops a fever over 100 degrees Fahrenheit (37.8 degrees Celsius), or if your child starts to look or act sick. (In children under age 5, temperatures should be taken rectally or orally.) Call your child's doctor if the color deepens after day 7, the jaundice is not gone after day 15, your baby is not gaining sufficient weight, or if you are concerned about the amount of jaundice in your baby's skin.

## Treatments

In mild or moderate levels of jaundice, by 5 to 7 days of age the baby will take care of the excess bilirubin on its own. If high levels of jaundice do not clear up, **phototherapy** - treatment with a special light that helps rid the body of the bilirubin by altering it or making it easier for your baby's liver to get rid of it - may be prescribed.

More frequent feedings of breast milk or formula to help infants pass the bilirubin in their stools may also be recommended. In rare cases, a blood exchange may be required to give a baby fresh blood and remove the bilirubin.

If your baby develops jaundice that lasts more than a week, your doctor may ask you to temporarily stop breastfeeding. During this time, you can pump your breasts so you can keep producing breast milk and you can start nursing again once the condition has cleared.

If the amount of bilirubin is high, your baby may be readmitted to the hospital for treatment. Once the bilirubin level drops, however, it is unlikely it will increase again.

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