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“Jaundice in Healthy Newborns”

www.kidshealth.org

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:

- Newborns make more bilirubin than adults do since they have more turnover of red blood cells.
- A newborn baby's still-developing liver may not yet be able to remove adequate bilirubin from the blood.
- 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 25 mg — can cause deafness, cerebral palsy, or other forms of brain damage in some babies. In less common cases, jaundice may indicate the presence of another condition, such as an infection or a thyroid problem. The American Academy of Pediatrics (AAP) recommends that all infants should be examined for jaundice within a few days of birth.

Types of Jaundice

The most common types of jaundice are:

- **Physiological (normal) jaundice:** occurring in most newborns, this mild 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:** occurs frequently in premature babies since they are even less ready to excrete bilirubin effectively. Jaundice in premature babies needs to be treated at a lower bilirubin level than in full term babies in order to avoid complications.
- **Breastfeeding jaundice:** jaundice can occur when a breastfeeding baby is not getting enough breast milk because of difficulty with breastfeeding or because the mother's milk isn't in yet. This is not caused by a problem with the breast milk itself, but by the baby not getting enough to drink.

- **Breast milk jaundice:** in 1% to 2% of breastfed babies, jaundice may be caused by substances produced in their mother's breast milk that can cause the bilirubin level to rise. These can prevent the excretion of bilirubin through the intestines. It starts after the first 3 to 5 days and slowly improves over 3 to 12 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 can begin as early as 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 usually 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, it is best for the baby to be seen by a doctor within 1 to 2 days of leaving the hospital to check for jaundice. Parents should also keep an eye on their infants to detect jaundice.

If you notice your baby's skin or eyes looking yellow 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. Some offices use a light meter to get an approximate measurement, and then if it is high, check a blood sample. The seriousness of the jaundice will vary based on how many hours old your child is and the presence of other medical conditions.

When to Call the Doctor

Your doctor should be called immediately if:

- jaundice is noted during the first 24 hours of life
- the jaundice is spreading or getting more intense
- your baby develops a fever over 100° Fahrenheit (37.8° Celsius) rectally
- if your child starts to look or act sick

Also call the doctor right away if the color deepens, your baby is not feeding well, or if you feel your baby is sleepier than usual. It is difficult to tell how significant jaundice is just by looking at a baby, so any baby who has yellow eyes or skin should be checked by the doctor.

Treatments

In mild or moderate levels of jaundice, by 1 to 2 weeks of age the baby will take care of the excess bilirubin on its own. For high levels of jaundice, 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 used.

More frequent feedings of breast milk or supplementing with 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 seems to be from breast milk, 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 and the treatment is stopped, it is unlikely that treatment for jaundice will need to be restarted.