

JAUNDICE

What is jaundice?

In jaundice the skin and the whites of the eyes (the sclera) are yellow because of increased amounts of a yellow pigment called bilirubin in the body. Bilirubin is produced by the normal breakdown of red blood cells. Bilirubin builds up in the body if the liver doesn't send it into the intestines at a normal rate.

What is the cause?

Jaundice can be caused by several different problems:

- **Physiological jaundice:** This is the most common cause of newborn jaundice and occurs in more than 50% of babies. Because the baby has an immature liver, bilirubin is processed slower. The jaundice first appears at 2 to 3 days of age. It usually disappears by 1 to 2 weeks of age, and the levels of bilirubin are harmless.
- **Breast-feeding jaundice:** Breast-feeding jaundice may occur when your baby does not drink enough breast milk. It occurs in 5% to 10% of newborns. The jaundice symptoms are similar to those of physiological jaundice, just more pronounced. The jaundice indicates a need for help with breast-feeding.
- **Breast-milk jaundice:** Breast-milk jaundice occurs in 1% to 2% of breast-fed babies. It is caused by a special substance that some mothers produce in their milk. This substance causes your baby's intestine to absorb more bilirubin back into their body than normal. This type of jaundice starts at 4 to 7 years of age. It may last 3 to 10 weeks. It is not harmful.
- **Blood group incompatibility (Rh or ABO problems):** If a baby and mother have different blood types, sometimes the mother produces antibodies that destroy the newborn's red blood cells. This causes a sudden buildup of bilirubin in the baby's blood. This serious type of jaundice usually begins during the first 24 hours of life. Rh problems formerly caused the most severe form of jaundice. However they are now preventable if the mother is given an injection of RhoGAM within 72 hours after delivery. This prevents her from forming antibodies that might endanger other babies she has in the future.

What is the treatment?

- **Physiological jaundice:** If you feed your baby with a bottle, feed your baby more often. Try to feed your baby every 2 to 3 hours during the day.
- **Breast-feeding:** The main treatment is to increase the supply of breast milk. Read about breast-feeding or talk with a lactation specialist. Nurse your baby more often. Nurse your baby every 1-1/2 to 2-1/2 hours. Since the bilirubin is carried out of the body in the stools, passing frequent bowel movements (BMs) is helpful. If your baby sleeps more than 4 hours at night, awaken them for a feeding. Frequent weight checks are also important. If you must supplement, use formula, not glucose water.
- **Breast-milk:** Occasionally the bilirubin will not come down with frequent feeding. In this situation the bilirubin level can be reduced by alternating each breast-feeding with formula feeding for 2 or 3 days. Supplementing with glucose water is not as helpful as formula feeding for 2 to 3 days. Supplementing with glucose water is not as helpful as formula for moving the bilirubin out of the body. Whenever you miss a nursing, be sure

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to use a breast pump to keep your milk production flowing. Breast-feeding should never be permanently discontinued because of breast-milk jaundice. Once the jaundice clears, you can return to full breast-feeding and you needn't worry about the jaundice coming back.

- Severe jaundice (blood group incompatibility): High levels of bilirubin (usually above 20 mg/dl) can cause deafness, cerebral palsy, or brain damage in some babies. High levels usually occur with blood type differences. These complications can be prevented by lowering the bilirubin using phototherapy (blue light that breaks down bilirubin in the skin). In many communities, phototherapy can be used in the home.

In rare cases where the bilirubin reaches dangerous levels, an exchange transfusion may be used. This technique replaces the baby's blood with fresh blood. Physiological jaundice does not rise to levels requiring this type of treatment.

How do I check for jaundice?

Newborns often leave the hospital within 24 to 48 hours of their birth. Parents therefore have the responsibility to closely observe the degree of jaundice in their newborn. The amount of yellowness is best judged by viewing your baby unclothed in natural light by a window.

When should I call my child's healthcare provider?

Call *immediately* if:

- You observe any signs of dehydration.
- Jaundice is noticed during the first 24 hours of life.
- Your baby develops a fever over 100.4°F (38°C).
- Your baby also starts to look or act sick.

Call during office hours if:

- Your baby looks deep yellow or orange.
- Your baby is not getting enough milk or gaining weight well.
- Your baby has less than three good-sized BMs per day.
- Your baby has less than six wet diapers per day.
- The jaundice is not gone by Day 14.
- You have other questions or concerns.

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