Jaundice in Babies and Hyperbilirubinemia

Jaundice [JAWN-dis] is when the skin has a yellowish color. Jaundice is common, affecting 6 out of every 10 newborn babies. It usually happens shortly after birth.

Jaundice is usually caused by too much bilirubin [BIL-lee-roo-bin] in the blood. This is called hyperbilirubinemia [hi-per-billy-roo-bin-EE-mee-uh]. Bilirubin is a yellow pigment that comes from red blood cells that have been broken down. Normally, the body gets rid of excess bilirubin with the help of the liver.

How do babies get jaundice?
Red blood cells are part of blood. Newborn babies have an extra supply of red blood cells. After the baby is born, the body breaks down the extra red blood cells. This is normal, but causes more bilirubin in the blood. A newborn baby’s liver is still developing and may not be able to remove enough bilirubin from the blood. Sometimes this goes away by itself. In other cases, the baby has to be treated with phototherapy [foe-toe-THER-ah-pee], also called light treatment (see below).

Types of Jaundice
The most common types of jaundice are:

• **Normal (physiologic) jaundice:** This occurs when the baby’s liver is too immature to process all the bilirubin made by the body. Babies usually are most yellow between the 2nd to 4th day after birth and may not require any treatment.

• **Breastfeeding jaundice:** Before the mother’s milk supply comes in, the baby may not get enough fluids to help the body get rid of the extra bilirubin. This type of jaundice usually shows up between the 2nd to 4th days of life.

• **Breast milk jaundice:** Sometimes the mother’s milk may contain something that prevents the baby from getting rid of bilirubin. This type of jaundice usually begins between the 4th to 7th day of life, and may last for 3 to 12 weeks.

• **Jaundice of prematurity:** The bodies of premature babies are even less ready to eliminate bilirubin effectively, making jaundice even more common. This type of jaundice affects 8 out of every 10 premature babies.

• **Blood group incompatibility (Rh or ABO problems):** In some situations, the mother and the baby have different blood types. The mother’s body might produce antibodies that destroy the infant’s red blood cells. This may begin as early as the first day of life and will require treatment.
How do I prevent jaundice and when do I call the doctor?

1. Feed your newborn baby regularly. If you are breastfeeding, your baby should eat every 2 to 3 hours.
2. Make sure your baby has 6 to 8 wet diapers a day. This shows that your baby is getting enough fluid.
3. Call your doctor if your baby:
   - Has fewer than 4 to 6 wet diapers a day
   - Has skin that looks yellow or the yellow is spreading
   - Starts to look or act sick
   - Isn’t feeding well
   - Is sleepier than usual
   - Has a fever of 100.4° F (38.0° C) or higher

A baby’s brain can be affected if jaundice is not treated. For this reason, if your child is jaundiced, it is very important to call your child’s doctor.

How does phototherapy work?

Phototherapy is a specialized light that shines on a child’s uncovered skin. This light helps change bilirubin so it is easier for the body to get rid of it. These lights are sometimes called “bililights” [billy-lights]. Here’s what to expect:

- Your baby will have patches placed over their eyes to protect them from the bright lights. Your child’s eyes are closed before the patches are put on.
- Lotions and creams are not used while your child is under the lights because they could cause skin irritation or burning.
- For the lights to work, your baby needs to be under them as much as possible. Your baby may be held and fed for short periods without the lights. Ask your nurse or healthcare provider for instructions.
- Your nurse will check your baby often. Depending on your baby’s size, your child may be placed in an isolette [eye-so-LET] which helps keep your baby warm. Or, your baby may be placed in an open crib. The phototherapy lights provide some heat for your baby. Your child’s nurse will check your baby’s temperature often. This is done to make sure your baby is not too warm or too cold.

How is hyperbilirubinemia treated?

When you take your baby to the doctor or the emergency room for jaundice, they will take a sample of blood from your baby’s finger or heel. The blood is sent for a test to check the level of bilirubin in your baby’s blood. If the level is high, the doctor may prescribe phototherapy to be used at home. If the level is too high, your child’s doctor may admit your baby to the hospital for 2 to 3 days. In the hospital your baby will receive more intense phototherapy. While in the hospital, your child’s healthcare team will make sure your child has enough fluids. In rare severe cases, a blood transfusion may be necessary.

How does my baby get enough fluid?

In the hospital, your baby is fed breast milk or formula every 2 to 3 hours. Jaundice may make your baby tired, inactive, and not hungry. To make sure your baby gets enough fluid, your child may be fed with an IV [eye-vee] or intravenous [in-trah-VEE-nuss] line. As your baby starts to eat more, the IV is used less and less.

Your child’s diapers are saved and weighed to make sure your baby is urinating (peeing) enough.

When can my child go home?

While your child is in the hospital, the bilirubin levels are tested regularly. When the level is low enough, phototherapy can be stopped. Your baby’s doctor or healthcare provider may want to keep them in the hospital for another 12 to 24 hours. This is to make sure the bilirubin level does not go up again.

After you leave the hospital, your child’s doctor or healthcare provider may ask you to check your baby’s bilirubin levels again. They may ask you to bring your child to the pediatrician’s office or the hospital as an outpatient (without staying overnight) for testing.