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### ***Jaundice (Hyperbilirubnemia)***

Jaundice is a word used to describe an infant's skin or the white's of the eyes when they turn yellow or slightly orange. Jaundice is common in term and preterm newborns.

#### **What Is Jaundice?**

A baby has jaundice when bilirubin, which is produced naturally by the body, builds up faster than a newborn's liver can break it down and get rid of it in the baby's stool. This happens because of one or more of the following reasons:

- The baby's developing liver is not yet able to remove the bilirubin from the blood.
- More bilirubin is being made than the liver can handle.
- Too much bilirubin is reabsorbed from the intestines before the baby gets rid of it in the stool.

Too much bilirubin makes the baby's skin look yellow. The yellow color will appear first on the face, then on the chest and stomach and finally on the legs.

#### **What Is Bilirubin?**

Everyone's blood contains hemoglobin inside the red blood cells. Hemoglobin carries oxygen to all of the cells and organs of the body. Red blood cells live only a short time. As they die they release hemoglobin into the blood stream that is changed to yellow bilirubin in the liver. Premature babies and normal newborns have more bilirubin because their livers are not efficient at removing it. Older babies, children and adults get rid of this yellow blood product quickly, usually through bowel movements.

#### **Can Jaundice Hurt My Baby?**

Some degree of jaundice is normal in every infant. However, jaundice can be dangerous if the bilirubin reaches too high a level. If the blood and skin are filled with bilirubin, it can be deposited in the brain where it can lead to hearing loss and damage the developing nervous system. Many factors such as the infant's age, whether the infant was full term or premature, and the presence of other medical problems such as infection, will help determine the type of treatment as well as when to start treatment. If your doctor identifies risk factors in your baby, it will be important for you to watch your baby closely for jaundice. Your baby may need to see a doctor 24 hours after discharge.

#### **How Do I Know If My Baby Has Jaundice?**

Look at your baby under good light. An easy way to test for jaundice is to gently press on your infant's forehead or nose with your fingertip. If the skin looks white where you pressed, there is no jaundice. If the skin looks yellow or orange, your baby probably has jaundice. This test is true for babies of all races. If you see a yellowish color, contact your baby's doctor.

A small sample of your baby's blood can be tested to measure the bilirubin level. This can be obtained with a simple prick of the heel. Other tests may be needed to see if your baby has a special cause for the jaundice.

## **How Is Jaundice Treated?**

Mild to moderate levels of jaundice do not require any treatment. A high level of jaundice requires treatment. Your baby may be treated with special lights called "phototherapy." Phototherapy is similar to sunlight and helps break down bilirubin in the blood and skin. Phototherapy is done in the hospital or sometimes at home. The infant's clothes (except for the diaper) are removed and the infant's eyes are covered to protect them from the light. Phototherapy will continue until the level of bilirubin in the infant's blood falls and remains at a safe level.

Another treatment is more frequent feedings of breastmilk or formula to help pass the bilirubin out in the stools. Giving water or sugar water does not work to get rid of bilirubin. In rare cases of very high bilirubin levels, a procedure to exchange the blood may be done. Old blood containing the high bilirubin level is exchanged for fresh blood. This procedure is called an "exchange transfusion" and your physician will give you more details if this or other treatments are necessary.

## **How Does Breastfeeding Affect Jaundice?**

Many people think that breastfed babies have more jaundice than bottle fed babies. This is not necessarily true. When breastfed babies are fed as nature intended (10 - 12 times per 24 hours), the amount of jaundice appears to be the same as with formula fed infants, but it does last a few days longer. Bilirubin, the substance that causes the jaundice, may be a natural protector against the harmful effects of oxygen free radicals.

The early jaundice (2 - 3 days after birth) seen in breastfed babies is usually due to a lack of breastmilk going through the infant's intestines. This may happen because mother's full milk supply has not "come in" yet or the infant is not yet efficient at removing the milk from the mother's breast. Increasing breastfeeding will increase the number of stools to help remove bilirubin. A referral to a lactation consultant may be helpful. Your physician may suggest adding some formula to help increase the number of stools and remove the bilirubin. Giving water, teas or juices will not help.

Breastfed babies may also have jaundice later (5 - 10 days after birth) due to naturally occurring substances in mother's breastmilk. If other causes of jaundice have been ruled out, and the infant appears to be healthy and gaining weight, the infant should continue to breastfeed. Bilirubin levels will need to be watched by the doctor. Occasionally, the doctor may ask that breastfeeding be stopped for 24 - 48 hours and formula given to help reduce the bilirubin level faster. If breastfeeding is interrupted you must pump your breasts to maintain your milk supply. The bilirubin level should decrease quickly, and then increase slightly again when breastfeeding is restarted, and then fall slowly thereafter.

### **Remember:**

- Jaundice in newborn full term and premature infants is very common.
- In most cases the condition is normal, harmless and lasts for only a short time.
- When treatment is necessary, the methods used are safe and effective.