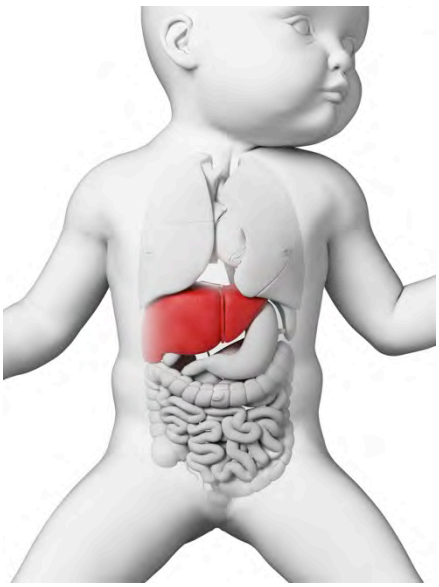
Jaundice & Breastfeeding

Jaundice is a yellowish color of the skin and the eyes. It is caused by a buildup in the blood of bilirubin, a yellow pigment that comes from the breakdown of red blood cells.
It can be very frightening for new parents when a baby has jaundice in those first days after birth. They might think that something is very wrong with their baby. However, understanding the facts about jaundice is very reassuring.
In this handout I will explain some facts about jaundice and answer some frequently asked questions.

1. What causes jaundice in the newborn?

A fetus obtains oxygen from the mother's blood through the placenta and the umbilical cord. In order to aid this process, a fetus has more and larger red blood cells than adults. At birth the baby starts breathing through the lungs. So, he moves from a low oxygen environment (in the mother's womb) to high oxygen environment (breathing through his lungs outside the womb). The baby no longer needs the larger red blood cells and he no longer needs that many. Excess red blood cells are broken down.



So, after the baby is born:
Excess red blood cells are broken down, thus an increase in bilirubin.
The newborn's immature liver can't process and excrete bilirubin fast enough, so there is more bilirubin in the bloodstream.
Some of the bilirubin can be re-absorbed in the gut, taking it back to the liver to process.
Result? A build-up in the blood of bilirubin and a yellow baby.
No wonder that 60-80% of all newborns develop jaundice in de first days of life. In the vast majority of cases, newborn jaundice is a normal process. New research even suggests that jaundice actually protects the baby's body against damaging substances called free radicals. Research has suggested that extra--but less than dangerous--levels of bilirubin might lessen the effect of stroke and even reduce the risk of cancer or heart attack.

2. Different kinds of jaundice:

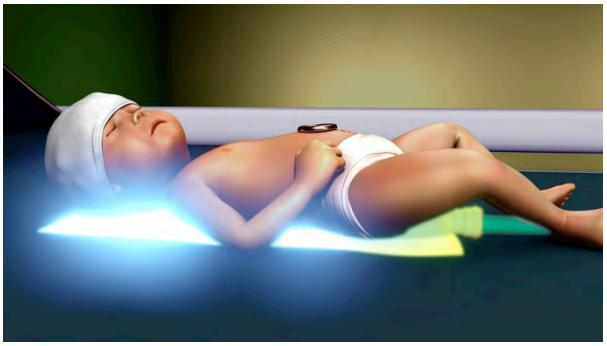
- ✓ physiological jaundice
- ✓ breastmilk jaundice
- ✓ pathological jaundice (including breast-non-feeding jaundice)

a. Physiological jaundice.

This is a yellow coloring of the skin in a thriving newborn with normal weight loss and normal wet and dirty diapers, which is due to a normal increase of bilirubin in the first days after the baby's birth. In healthy infants, bilirubin levels can rise to 15-20 mg/dl of blood in the first week after birth. In order to assess the level of jaundice, the doctor might order a blood test.
Cause: the increase in bilirubin causing physiological jaundice in the newborn is due to extra red blood cells broken down, the immaturity of the liver to process the bilirubin fast enough and due to some reabsorption of bilirubin in the gut.
Onset/peak/duration: Physiological jaundice usually begins about the second day after birth (never on the first day!), peaks on the third to fifth day and then disappears within a week.

Jaundice that persists beyond a week does not necessarily have to be abnormal, it may be due to something called breastmilk jaundice.

b. Breastmilk jaundice
Breastmilk jaundice is jaundice that persists after physiological jaundice subsides. It is seen in otherwise healthy, full-term, breastfed babies.
Cause: Unknown
Onset/peak/duration: breastmilk jaundice starts after day 5 (an extension of physiological jaundice), peaks at day 10-21. It can last for 3-12 weeks after birth.
Does your breastfed baby have jaundice past one week of age? Then ask yourself the following questions:
Is my baby healthy?
Is my baby feeding well?
Is he gaining weight well?
Is he alert and waking up for his feeds?
Does my baby have frequent normal yellow stools? (see our handout "Normal Wet and Dirty Diapers")
Is my baby passing plentiful clear urine (6-8 times a day)?
Are bilirubin levels normal? (check your baby's bilirubin levels at around 2-3 weeks of age and regularly afterwards as long as the baby is yellow)
If your answer is yes to all these questions, then your baby most probably has breast milk jaundice. Breast milk jaundice is normal. This form of jaundice does NOT mean that something is wrong with the mother's milk. There is not one bit of evidence that this jaundice causes any problem at all for the baby. If the baby is truly doing well on breast only, there is no reason to stop breastfeeding or supplement. Only occasionally treatment, such as phototherapy, is necessary.



c. Abnormal or pathological jaundice
If jaundice starts on the first day, bilirubin levels are rapidly rising, or bilirubin levels are over 15-20 mg/dl then extra treatment is necessary, because severe jaundice--over 25-30mg/dl of bilirubin--can cause brain damage if left untreated. Treatment includes improving feeding and phototherapy, by which the baby will be put under a light which

helps to break down the bilirubin. Sometimes an exchange transfusion is necessary.
What can be reasons for bilirubin levels to become too high?
The baby breaks down even more red blood cells than usual. For example in case Hb or ABO incompatibility or after the baby had a bad bruise due to a difficult birth.
There may be other conditions (infection, prematurity, stress from a difficult birth, respiratory distress, poor liver function, blocked tubes that transport bilirubin to the intestines, under functioning of the baby's thyroid gland, some rare inherited disorders) that can cause too high levels of bilirubin and which require treatment.
In these situations, should breastfeeding be discontinued?
Some doctors might advice to stop breastfeeding, because they are afraid that the breastmilk may cause the jaundice to be worse.
Other doctors say that there is absolutely no reason to stop breastfeeding. After all, the cause of the high levels of bilirubin is not breastmilk, the conditions that cause pathological jaundice don't have anything to do with breastfeeding. So stopping breastfeeding doesn't make sense. The colostrum and breastmilk the baby receives will help him move his bowels, speeding up the elimination of bilirubin from his system. And a sick baby needs the benefits of breastmilk even more than a healthy baby. Even if the baby needs to go under the light: continue breastfeeding and whatever other treatment is necessary to bring down the bilirubin levels.

"Not-enough-breastmilk" Jaundice
Another type of abnormal jaundice is "not-enough-breastmilk "jaundice. Ineffective feeding, because the baby is sleepy, premature, not well positioned at the breast, not feeding often or long enough, can result in the baby not getting enough milk. If the baby doesn't get enough milk (whether that is breastmilk or formula), output decreases, so less stools and thus less bilirubin leaving the baby's body. So, if the baby doesn't get enough milk, then yes, jaundice is worse, because less bilirubin leaves the body through the stools.
What can we do about "not-enough-breastmilk" jaundice?
Improve breastfeeding
Improve latch
Breastfeed more often, not limiting frequency and duration of feeds
If necessary start pumping as well and supplement with expressed breastmilk. (see handout "Expressing Breast Milk")
After having done the above and the baby still doesn't get enough milk, first ask for help. A Lactation Consultant can perhaps suggest other methods to improve breastfeeding. She'll also be able to advice if it is necessary to start supplementing with formula.
Should you stop breastfeeding? Remember: it isn't the breastmilk that is the problem, but poor breastfeeding, not enough breast milk, that's the problem. Making sure that the baby gets more breastmilk will solve the problem.

Last but not least:

3. Can we prevent jaundice?

No, jaundice is due to a natural process. Nearly all infants are jaundiced to some degree. This is normal and might even have a protective effect on the baby!

4. Can we prevent jaundice from getting worse?

Yes, we can! How?

Start breastfeeding early (within one hour of birth). See our handout "Breastfeeding Right after Birth".

Breastfeed on-demand, at least 8-12 times per 24 hrs, not limiting frequency and duration of the feeds. Is the baby sleepy? Wake it up. Don't allow more than three hours between feeds! See our handout "Is My Breastfeeding Baby Getting Enough to Eat?"

Make sure the baby has a good latch. See our handout "The Importance of the Latch-on".

If necessary: express after breastfeeding and supplement with expressed breastmilk. See our handout "Expressing Breast Milk".

Expose a jaundiced baby to direct sunlight (warning: make sure the baby doesn't get too hot in the sun!)

Some doctors suggest that all baby's bilirubin levels are tested before leaving the hospital, because just looking at the baby to assess the level of jaundice might not be enough.

Don't supplement with water or sugar water. This will only reduce milk intake and thus reduce bowel movements and thus will cause a delay in bilirubin excreted from the baby's body.

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http://www.gentlebirth.org/archives/jaundiceGood.html

Slight Yellow Tint May Be Protective for Newborns

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https://www.breastfeeding.asn.au/exclusive-breastfeeding-and-jaundice