

Breastfeeding and Jaundice



Introduction Jaundice is due to a buildup in the blood of bilirubin, a yellow pigment that comes from the breakdown of old red blood cells. It is normal for old red blood cells to break down, but the bilirubin formed does not usually cause jaundice because the liver metabolizes it and gets rid of it into the gut. The newborn baby, however, often becomes jaundiced during the first few days because the liver enzyme that metabolizes bilirubin is relatively immature. Furthermore, newborn babies have more red blood cells than adults, and thus more are breaking down at any one time; as well many of these cells are different from adult red cells and they don't live as long. All of this means more bilirubin will be made in the newborn baby's body. If the baby is premature, or stressed from a difficult birth, or the infant of a diabetic mother, or more than the usual number of red blood cells are breaking down (as can happen in blood incompatibility), the level of bilirubin in the blood may rise higher than usual levels.

Two Types of Jaundice

The liver changes bilirubin so that it can be eliminated from the body (the changed bilirubin is now called *conjugated*, *direct reacting*, or *water soluble* bilirubin--all three terms mean essentially the same thing). If, however, the liver is functioning poorly, as occurs during some infections, or the tubes that transport the bilirubin to the gut are blocked, this changed bilirubin may accumulate in the blood and also cause jaundice. When this occurs, the changed bilirubin appears in the urine and **turns the urine brown**. This brown urine is an important clue that the jaundice is not "ordinary". Jaundice due to conjugated bilirubin is *always* abnormal, frequently *serious* and needs to be investigated thoroughly and immediately. Except in the case of a few *extremely rare* metabolic diseases, breastfeeding can and should continue.

Accumulation of bilirubin before it has been changed by the enzyme of the liver may be normal—"physiologic jaundice" (this bilirubin is called *unconjugated*, *indirect reacting* or *fat soluble* bilirubin). Physiologic jaundice begins about the second day of the baby's life, peaks on the third or fourth day and then begins to disappear. However, there may be other conditions that may require treatment that can cause an exaggeration of this type of jaundice. Because these conditions have no association with breastfeeding, breastfeeding should continue. ***If, for example, the baby has severe jaundice due to rapid breakdown of red blood cells, this is not a reason to take the baby off the breast. Breastfeeding should continue in such a circumstance.***

So-Called Breastmilk Jaundice

There is a condition commonly called breastmilk jaundice. No one knows what the cause of breastmilk jaundice is. In order to make this diagnosis, the baby should be at least a week old, though interestingly, many of the babies with breastmilk jaundice also have had exaggerated physiologic jaundice. The baby should be gaining well, with breastfeeding alone, having lots of bowel movements, passing plentiful, clear urine and be generally well (see the information sheet *Is my Baby Getting Enough Milk?* and see also the video clips at the website nbc.ca). In such a setting, the baby has what some call breastmilk jaundice, though, on occasion, infections of the urine or an under

functioning of the baby's thyroid gland, as well as a few other even rarer illnesses may cause the same picture. Breastmilk jaundice peaks at 10-21 days, but may last for two or three months. Breastmilk jaundice is **normal. Rarely, if ever, does breastfeeding need to be discontinued even for a short time.** Only very occasionally is any treatment, such as phototherapy, necessary. There is not one bit of evidence that this jaundice causes any problem at all for the baby. Breastfeeding should not be discontinued "in order to make a diagnosis". If the baby is truly doing well on breast only, there is **no reason, none**, to stop breastfeeding or supplement even if the supplementation is given with a lactation aid, for that matter. The notion that there is something wrong with the baby being jaundiced comes from the fact that the formula feeding baby is the model we think is the one that describes normal infant feeding and we impose it on the breastfed baby and mother. This manner of thinking, almost universal amongst health professionals, truly turns logic upside down. Thus, the formula feeding baby is rarely jaundiced after the first week of life, and when he is, there is usually something wrong. Therefore, the baby with so called breastmilk jaundice is a concern and "something must be done". However, in our experience, **most exclusively** breastfed babies who are perfectly healthy and gaining weight well are still jaundiced at five to six weeks of life and even later. The question, in fact, should be whether or not it is normal *not to be jaundiced* and is this absence of jaundice something we should worry about? **Do not stop breastfeeding for "breastmilk" jaundice.**

Not-Enough-Breastmilk Jaundice

Higher than usual levels of bilirubin or longer than usual jaundice may occur because the baby is *not getting enough milk*. This may be due to the fact that the mother's milk takes longer than average to "come in" (but if the baby feeds well in the first few days this should not be a problem), or because hospital routines limit breastfeeding or because, most likely, the baby is poorly latched on and thus not getting the milk which is available (see the information sheet *Is my Baby Getting Enough Milk?* and see also the video clips at the website [nbc.ca](http://www.nbc.ca)). When the baby is getting little milk, bowel movements tend to be scanty and infrequent so that the bilirubin that was in the baby's gut gets reabsorbed into the blood instead of leaving the body with the bowel movements. Obviously, the best way to avoid "not-enough-breastmilk jaundice" is to get breastfeeding started properly (see the information sheet *Breastfeeding—Starting Out Right*). Definitely, however, the first approach to not-enough-breastmilk jaundice is not to take the baby off the breast or to give bottles (see the information sheet *Protocol to Manage Breastmilk Intake*). If the baby is breastfeeding well, more frequent feedings may be enough to bring the bilirubin down more quickly, though, in fact, nothing really needs be done. If the baby is breastfeeding poorly, helping the baby latch on better may allow him to breastfeed more effectively and thus receive more milk. Compressing the breast to get more milk into the baby may help (see the information sheet *Breast Compression*). If latching and breast compression alone do not work, a lactation aid would be appropriate to supplement feedings (see the information sheet *Lactation Aid*). See also the information sheet: *Protocol to Manage Breastmilk Intake*. See also the website [nbc.ca](http://www.nbc.ca) for videos to help use the Protocol by showing how to latch a baby on, how to know the baby is getting milk, how to use compressions, as well as other information on breastfeeding.

Phototherapy (Bilirubin Lights)

Phototherapy increases the fluid requirements of the baby. If the baby is breastfeeding well, more

frequent feeding can usually make up this increased requirement. However, if it is felt that the baby needs more fluids, **use a lactation aid to supplement**, preferably expressed breastmilk, expressed milk with sugar water or sugar water alone rather than formula.

Questions? First look at the website [nbc.ca](http://www.nbc.ca) or drjacknewman.com. If the information you need is not there, go to *Contact Us* and give us the information listed there in your email. Information is also available in **Dr. Jack Newman's Guide to Breastfeeding** (called **The Ultimate Breastfeeding Book of Answers** in the USA); and/or our DVD, **Dr. Jack Newman's Visual Guide to Breastfeeding** (available in French or with subtitles in Spanish, Portuguese and Italian); and/or **The Latch Book and Other Keys to Breastfeeding Success**; and/or **L-eat Latch and Transfer Tool**; and/or the **GamePlan for Protecting and Supporting Breastfeeding in the First 24 Hours of Life and Beyond**.

To make an appointment online with our clinic please visit www.nbc.ca. If you do not have easy access to email or internet, you may phone (416) 498-0002.

Breastfeeding and Jaundice, 2009©

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