Yellow? All about newborn jaundice and bilirubin

Can you pick out the jaundiced one?

Pediatricians often cringe when they find newborns swathed in a yellow blanket. The color always seems to accentuate a baby's jaundice and we're not fond of jaundice.

Jaundice, an orange-yellow coloration of the eyes and skin, is caused by a blood breakdown by-product called bilirubin. We all break down blood, but it's more difficult for the newborn's liver to process it into a form that his or her body can get rid of. Eventually, we get rid of bilirubin by peeing and pooping it out. Bilirubin is what gives the yellowish color to urine and stool.

Why do we care about jaundice? In the 1950s and '60s, infants who had died from a neurological issue called kernicterus were found to have extremely high levels of bilirubin (jaundice) –

up into the 100s of mg/dl. High levels of bilirubin can cause hearing and vision issues. Even at lower levels, jaundiced babies tend to be more sleepy and eat sluggishly.

Nowadays, for a full term baby, we generally let the bilirubin level rise to 20 mg/dl at most before starting treatment, and often we treat even earlier. More than 60% of newborns appear jaundiced in the first few days of life, but most never need any special treatment because the jaundice self-resolves. Conveniently, the first line of treatment is simply feeding more: the more milk that goes in, the more pee and poop that comes out, bringing the bilirubin with it. If improving intake does not lower the bilirubin enough, the next step is shining special lights (phototherapy) on a baby's skin.

Jaundice first starts noticeably in the eyes and face. As bilirubin levels rise, the yellow (jaundice) appears more and more down the body. Yellow in the face of a newborn is expected. If you see yellow in the belly, call your pediatrician. Levels naturally rise and peak in the first few days and we have graphs and apps to predict if the bilirubin may reach treatable levels.

Some babies are more likely to have higher bilirubin numbers and thus appear more yellow:

- Premature babies, because they have immature livers.
- Babies who have different blood types than their moms. Certain blood type differences can cause some breakdown of blood even before a baby is born, therefore increasing chances of an elevated bilirubin after birth.
- Babies who acquire bruising during delivery; they have more blood to break down.
- Be aware, there are a few other less common risk factors, and if needed, your pediatrician may address them with you.

Hydrating your baby will help jaundice. You should watch the number of wet diapers your newborn has in a day. Wet diapers are a sign of good hydration. In the first week, she should have about one wet diaper for every day of life (so on day of life one= one wet diaper, day of life two=two wet diapers, etc). Also watch for bilirubin to start coming through the stool. At first, your baby will poop out the black stool called meconium, but as milk starts going through her system, expect the stool to turn yellowish. (click here for more information about the colors of newborn poop) . As with the urine, look for one bowel movement for every day of life (so day of life one=one bowel movement diaper, day of life two= two etc). Eventually some newborns poop every time they are fed, although some max out at 3 or 4 bowel movements per day.

So, if you hold up your newborn baby in a yellow blanket to show your pediatrician and call the baby “our little pumpkin” you’ll know why she raises an eyebrow.

Click here for other fun medical color facts.

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