

Indian Academy of Pediatrics (IAP)



GUIDELINES FOR PARENTS

Neonatal Jaundice



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10 FAQs on NEONATAL JAUNDICE

1. Why is my baby jaundiced so soon after birth? Is jaundice going to harm my baby? When will this jaundice go away?
2. Jaundice means weak or damaged liver? Will this jaundice recur in my future children?
3. Is jaundice contagious? I have other children at home. Can they contract it from this baby?
4. What is phototherapy? Will it hurt my baby?
5. My first baby was given phototherapy for 3–4 days. Will this baby need the same?
6. How do we take care of the baby during phototherapy? Is it harmful?
7. Is there any relation of baby's jaundice with diet of mother during pregnancy or breastfeeding, especially turmeric or papaya, etc.? Should I continue breastfeeding during jaundice?
8. How can I help my baby to get rid of jaundice? Can we give water or sugar for decreasing jaundice?
9. Is there any test to know the level of jaundice in my baby? What is TcB test?
10. Will phototherapy cause decrease of baby's fairness? Is sun therapy good for jaundice treatment?

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Neonatal Jaundice

Q1

Why is my baby jaundiced so soon after birth? Is jaundice going to harm my baby? When will this jaundice go away?

Your baby is jaundiced soon after birth due to building up of a yellow pigment called bilirubin in the baby's blood, which has given yellow color to baby's skin. This compound is formed in everyone's body, including babies, due to breakdown of old red blood cells and is removed by liver in our body. Before birth, mother's body takes care of removing bilirubin from baby's blood, and hence at the time of birth the baby does not look yellow. After birth, the baby's liver takes some time to develop effective ways to remove it. As a result, it is common for babies to appear jaundiced in early days after birth. More than 80% of babies develop some jaundice after birth.

Usually, this jaundice does not cause harm to the baby. Most full-term and healthy babies do not require any treatment and jaundice disappears by the end of the 1st week of life. However, if the baby is born premature or low birthweight or is unwell, one needs to be more careful and seek medical attention. Jaundice which develops on the 1st day of life or does not go away by 2 weeks or if it stains baby's palms and soles indicates high levels of bilirubin and is a cause of concern (**Fig. 1**). Similarly, if mother's and baby's blood groups do not match with each other and if such a baby develops jaundice soon after birth, the baby needs medical care to avoid any possible harm.



Fig. 1: Baby with severe jaundice revealing whole body stained yellow—this is too late, baby should not reach this stage.

In most babies, jaundice resolves by itself within 2 weeks, as the baby's body learns to get rid of the bilirubin. Few babies may continue to have yellowish appearance of eyes till the end of 1 month which may be normal, but it is always best to consult your doctor. Breastfeeding frequently greatly helps in reducing bilirubin levels by removing it from the body.

Q2

Jaundice means weak or damaged liver? Will this jaundice recur in my future children?

No, though jaundice in adults may be a sign of liver disease, it is rarely the case with newborn. The presence of jaundice means that the baby's body is producing bilirubin due to breaking down of red blood cells which is a normal phenomenon seen in up to 80–85% of all newborn babies. However, persistence of jaundice beyond 2 weeks of life is abnormal and you should consult a doctor who might want to evaluate your baby for other causes.

Jaundice is a common condition and occurs in most of babies. The mere presence of jaundice in this baby will not increase risk in future children. But in certain conditions, such as blood group difference between mother and baby and in certain genetic conditions, it can recur in subsequent babies.

Q3

Is jaundice contagious? I have other children at home. Can they contract it from this baby?

No absolutely not. Neonatal jaundice is not contagious. It is more like a natural expected phenomenon and most of the times does not need treatment. As you know now, the yellow color of the skin is due to bilirubin which is accumulating in the baby's body more than the capacity of the liver to handle it, this clears as the blood level of bilirubin comes down with enhanced maturity of the liver. It deposits in baby's skin layers temporarily, similar to skin pigments that give each of us our unique skin color. The yellow color developing in the eyes and skin can worry you, as you have never seen it before. However, it is important to understand that it is harmless and is not contracted by anyone upon touching the baby. You should continue to breastfeed and nurture your little one as routine and not worry at all about others including your other children contracting it.

Q4

What is phototherapy? Will it hurt my baby?

Phototherapy is a treatment given to your baby for jaundice (yellow color in the eye and skin). Jaundice occurs due to increased levels of bilirubin in baby's blood. Phototherapy is a special bright blue light which reduces the bilirubin level and facilitates its excretion from the body via urine and stool. It is a standard treatment for jaundice in the newborn. There are two types of phototherapy units:

1. *Conventional phototherapy* which uses halogen bulbs or fluorescent lights.
2. *Fiberoptic phototherapy* unit (bili-blanket) which is placed under baby's back.

We need to expose the baby's skin to this light which should preferably be provided in the hospital. Your baby will be undressed (except for the nappy) and the eyes will be covered to shut out the bright light during phototherapy. During this treatment, we will check your baby's bilirubin levels regularly and stop the treatment once it comes down to a safe level. This usually takes 48–72 hours. If the bilirubin levels are very high, additional therapies may be required and your doctor shall apprise you of the same.

Phototherapy is quite safe and does not hurt or harm the baby in any way (**Fig. 2**).



Fig. 2: A baby nursed comfortably in a nested bed under light-emitting diode (LED) phototherapy with eye cover and a nappy to cover genitalia.

Q5
My first baby was given phototherapy for 3–4 days. Will this baby need the same?

The most important factor which determines the duration of phototherapy is the cause of jaundice and the bilirubin level in the blood. We do some tests when the baby develops jaundice high enough to need treatment to determine the cause. If this baby of yours is well and does not have any signs of jaundice, then your baby would not need any further treatment or evaluation. Only if your baby looks jaundiced and bilirubin levels are above a certain limit, would your baby need phototherapy. Most jaundice in newborn babies is self-resolving without need for treatment. In the rare case of a mismatch in blood group between the baby and the mother, and in some rare genetic conditions, jaundice may recur in subsequent siblings and need phototherapy.

Q6
How do we take care of the baby during phototherapy? Is it harmful?

Baby will be kept in a separate cot under the lights. We cover the eyes with a bandage. We will stop phototherapy for 20–30 minutes every 2–3 hours to allow breastfeeding and nappy change. It is important to check the baby's temperature regularly to make sure the baby is not overheated or cold due to exposure. For very small babies, we prefer to give phototherapy in the incubator to maintain the temperature (**Fig. 3**).

Phototherapy is generally safe. Sometimes, it may cause skin rashes which disappear after stopping the treatment. Sometimes your baby may pass more frequent watery stools with this treatment, but this effect is also temporary and does not harm the baby. We need to make sure that we keep the baby well fed and thus well hydrated during the treatment.



Fig 3: Breastfeeding during phototherapy to keep the baby well fed and hydrated.

Q7

Is there any relation of baby's jaundice with diet of mother during pregnancy or breastfeeding, especially turmeric or papaya, etc.? Should I continue breastfeeding during jaundice?

There is no relation of baby's jaundice with maternal diet during pregnancy or nursing. Mother should consume a balanced diet to support her pregnancy and lactation. Intake of colored foods such as turmeric and papaya do not affect the newborn baby's risk of acquiring jaundice. It is important to continue breastfeeding during jaundice, and also if your baby is receiving treatment for jaundice.

Q8

How can I help my baby to get rid of jaundice? Can we give water or sugar for decreasing jaundice?

Some degree of jaundice is normal in close to 85% of all newborn babies. In most babies, jaundice is self-resolving by the end of 1st week of life. All you have to do is to continue breastfeeding, at least 8–10 times a day in addition to night-time feeds and feed whenever the baby demands.

No medication, sugar water or feed other than breastmilk should be given to the baby as it does not decrease jaundice and might be harmful to the baby.

Q9

Is there any test to know the level of jaundice in my baby? What is TcB test?

Jaundice can be ascertained by doing serum bilirubin test on a blood sample taken from the baby. A blood test is done when your baby looks significantly jaundiced to your doctor. Further course of action depends on your baby's risk factors and the serum bilirubin values. Taking blood sample may be painful for the baby, hence, TcB test is used.

TcB stands for "transcutaneous bilirubinometry" and it does not involve any blood sampling. In this test, tip of a handheld machine called "bilirubinometer" is placed on your baby's forehead following which the machine gives an approximate value of bilirubin levels in the blood. This test is not accurate when the bilirubin levels are higher, if your baby is preterm or if your baby appears jaundiced on the 1st day of life, hence your doctor might want to do a blood test and assess bilirubin level in such cases.

Q10

Will phototherapy cause decrease of baby's fairness? Is sun therapy good for jaundice treatment?

Phototherapy can lead to occasional skin rashes and bleaching of skin, both of which resolve completely, but it does not affect the fairness of your baby.

Sunlight therapy is not a known therapy for jaundice in babies. The only effective light therapy for jaundice is phototherapy. It is suggested that you consult your doctor if you feel that your baby appears jaundiced.