

# FACTSHEET



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## Jaundice in newborn babies

### What is jaundice?

Jaundice is a yellow colouration of the skin and the whites of the eyes. Visible jaundice occurs in nearly a half of all normal newborn babies. It usually does not cause problems and generally fades by the end of the first week after birth. If the jaundice appears within 24 hours of birth, or is still present after 2 weeks, contact your doctor or local hospital.

### What causes the yellow colour?

In the human body, new blood is being made all the time and old blood is being destroyed. One of the products of destroyed red blood cells is called bilirubin. Bilirubin normally goes to the liver to be processed (called conjugation) and then leaves the body in the poo. For the first few days after birth your baby's liver does not work as well as it does later, so there tends to be a build-up of bilirubin in the blood. This causes the yellow colour in the skin and whites of the eyes.

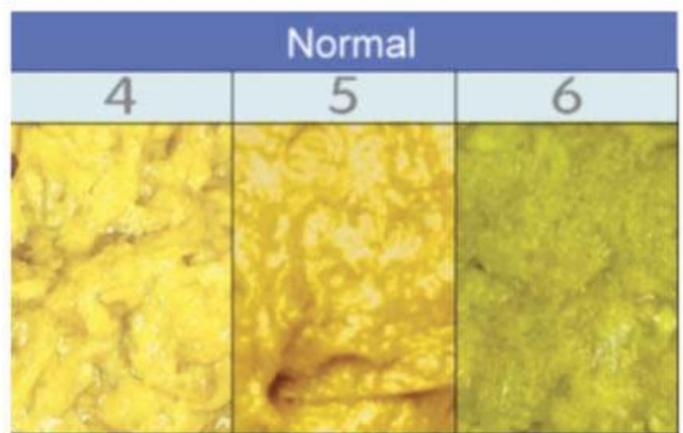
### Is jaundice harmful?

For most babies, jaundice is not harmful. Very high levels of unprocessed (unconjugated) bilirubin in the blood can lead to hearing problems and brain damage. In hospital, care is taken to ensure that the bilirubin level does not get too high. Sometimes babies will require treatment if the levels are too high. The commonest treatment in this situation involves keeping the baby under special lights (called phototherapy)

Prolonged jaundice may also be due to illnesses such as urinary tract infection, thyroid problems or liver disease. This is why it is important to **contact your local doctor if jaundice is prolonged (lasting longer than 2 weeks)**.

### Liver disease – the importance of poo colour

One of the signs of liver disease would be your baby's poo being **very pale** rather than a rich yellow, green or brown colour. If your baby is jaundiced and has pale poo, as in examples 1, 2 or 3 in the stool colour card below, please take your baby to the doctor for assessment.



We thank the Health Promotion Administration, Taiwan Ministry of Health and Welfare and Professor Mei-Hwei Chang for authorizing the use of the Taiwan Stool Color Card image above.

## What tests might be needed?

A urine test to rule out infection and a blood test to look at thyroid function may be required. A blood test to check the bilirubin levels (**BOTH total and conjugated fractions**) is the best way to know if a liver problem is present.

The presence of bilirubin in a urine analysis is another means of assessing for conjugated bilirubin, which suggests that liver disease is causing the baby's jaundice.

**Jaundice due to liver disease needs to be investigated immediately so that appropriate treatment can be started.**

## Which babies are more likely to have jaundice?

Babies who may be more likely to get jaundice include:

- Premature babies.
- Babies with an infection, such as a urinary tract infection.
- Rhesus or Rh babies. The blood cells of a baby who has a different blood group from their mother may be destroyed more rapidly, resulting in jaundice.
- Babies who are **breast fed** may also have prolonged jaundice for up to 4 weeks or more, for reasons that are not completely understood. However this is a "diagnosis of exclusion" and it should not be automatically accepted that breast milk is the cause of a baby's prolonged jaundice.
- Babies with liver disease. These babies might look otherwise well in the early stages. It is very important to look at the colour of the baby's stool. If it is pale, the baby should have a blood test to check whether the level of processed (conjugated) bilirubin. If this is elevated, the baby needs to be referred to a specialist doctor called a paediatric gastroenterologist as soon as possible. One of the commonest liver diseases to cause jaundice in babies is a condition called **Biliary Atresia**.

## Measuring how much jaundice the baby has

A blood test checks the bilirubin level. Some hospitals also use an instrument placed on your baby's skin as a screening test to help decide if a blood test is needed.

A blood test is required to determine if the jaundice is due to liver disease. This requires measurement of liver function tests, plus both the **total** and the **conjugated** fraction of bilirubin.

Note: Many labs may measure just the total bilirubin unless the conjugated fraction is specifically requested by the doctor.

Hospital staff will do a blood test if:

- There are risk factors present such as prematurity.

- Jaundice is present within the first day of life.
- Jaundice is extensive
- Persisting jaundice beyond two weeks of age
- Jaundice is associated with pale poos

## Treatment

Mild jaundice in the first week needs no treatment except fluids. Good fluid intake is essential for newborn babies, as jaundice is often exaggerated with mild dehydration.

Moderate jaundice is treated by placing your baby naked (with a protective mask over the eyes) under a bright light or a bluish-coloured light. This is called **phototherapy** and can be delivered safely in many different ways. The phototherapy light breaks down the bilirubin in the skin and makes the jaundice fade. This light treatment may cause your baby to have loose poos. This is dealt with by increasing your baby's fluid intake. Unsupervised exposure to direct sunlight **is not recommended**, as it can be harmful causing sunburn.

In severe jaundice your baby may need to have a special blood transfusion in which your baby's blood is replaced (exchanged) with fresh blood to wash the bilirubin out of the system.

If there is evidence of liver disease (pale stools, dark urine, elevated conjugated bilirubin, abnormal liver function tests) then immediate referral to a Paediatric Gastroenterologist is required.

## Are there any long term problems from jaundice?

There are usually no long-term problems following jaundice in babies. Babies who have had high levels of jaundice should have their hearing checked at regular intervals. This is best discussed with your doctor or early childhood nurse. Brain damage due to very high levels of jaundice is now extremely rare because the levels are carefully monitored during the first few days of life in hospital or at home with an early discharge program.

### Remember:

- If jaundice persists after 2 weeks, contact your doctor or local hospital.
- Although breast milk is a common cause of prolonged jaundice, your doctor or hospital should also consider other causes such as liver disease.
- Pale stools and dark urine can indicate liver disease. In this situation it is important to have a blood test to check the total and conjugated bilirubin levels, and liver function tests.