



Oxford Health
NHS Foundation Trust



Community Children's Nursing Hospital@Home

Jaundice home phototherapy

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What is jaundice?

Jaundice in newborn babies is common and usually harmless. It causes yellowing of the skin and the whites of the eyes. The medical term for jaundice in babies is neonatal jaundice.

Recognising jaundice in newborns

Yellowing of the skin can be more difficult to see in brown or black skin. It might be easier to see on the palms of the hands or the soles of the feet.

When does it appear and resolve?

The symptoms of newborn jaundice usually develop 2 days after the birth and tend to get better without treatment by the time the baby is about 2 weeks old.

What causes jaundice?

Jaundice is caused by the build-up of bilirubin in the blood. Bilirubin is a yellow substance produced when red blood cells, which carry oxygen around the body, are broken down.

Jaundice is common in newborn babies because babies have a high number of red blood cells in their blood, which are broken down and replaced frequently.

Also, a newborn baby's liver is not fully developed, so it is less effective at removing the bilirubin from the blood. By the time a baby is about 2 weeks old, their liver is more effective at processing bilirubin, so jaundice often corrects itself by this age without causing any harm.

When should you be concerned?

In a small number of cases, jaundice can be the sign of an underlying health condition. This is often the case if jaundice develops shortly after birth (within the first 24 hours).

How is jaundice treated?

Treatment is usually only needed if your baby has high levels of a substance called bilirubin in their blood, so blood tests need to be carried out to check this.

Newborn jaundice can last longer than 2 weeks if your baby was born prematurely or is solely breastfed. It usually improves without treatment.

If your baby's jaundice does not improve over time, or tests show high levels of bilirubin in their blood, they may be admitted to hospital and treated with phototherapy or an exchange transfusion.

These treatments are recommended to reduce the risk of a rare but serious complication of newborn jaundice called kernicterus, which can cause brain damage.

What is phototherapy?

Phototherapy is treatment with a special type of UV light (not sunlight). It is used to treat newborn jaundice by helping your baby's liver break down and remove bilirubin from the blood.

How phototherapy works

Phototherapy aims to expose your baby's skin to as much light as possible. Your baby will be placed under a light, either in a cot or an incubator, with their eyes covered.

Feeding and breaks

Phototherapy is usually stopped for 30 minutes so you can feed your baby, change their nappy, and give them a cuddle.

Intensified phototherapy

If your baby's jaundice does not improve, intensified phototherapy may be offered. This involves increasing the amount of light used or using another source of light, such as a light blanket, at the same time.

Treatment cannot be stopped for breaks during intensified phototherapy, so you will not be able to breastfeed or hold your baby. However, you can give your baby expressed milk.

Monitoring treatment

During phototherapy, your baby's temperature will be monitored to ensure they are not getting too hot, and they will be checked for signs of dehydration.

Once your baby's bilirubin levels have stabilised or started to fall, they will be checked regularly.

Phototherapy will be stopped when bilirubin levels fall to a safe level, which usually takes a day or two.

Effectiveness of phototherapy

Phototherapy is generally very effective for newborn jaundice and has few side effects.

Where will my baby receive phototherapy?

If your baby's bilirubin level means that they require phototherapy, this will be arranged for them to start phototherapy in hospital. Sometimes phototherapy can be given at home, following starting phototherapy in hospital.

If your baby is suitable for home phototherapy and you would prefer to be at home, you can give your baby phototherapy at home. You will be given the phototherapy equipment to start treatment.

Before you leave the ward, you will be shown how to use the equipment safely. A nurse from the Children's Hospital from Home Team will visit you in your home to support you and your baby with phototherapy.

What is phototherapy at home?

Phototherapy at home means that your baby has been assessed as able to receive their special light treatment 'phototherapy' at home.

You will be given the equipment to start phototherapy at home and you will be shown how to set the equipment up. You will be able to start phototherapy as soon as you get home by following this instruction leaflet.

A nurse from the Children's Hospital at Home Team will visit you at home shortly after discharge to support you with your baby's treatment. The nurses will then visit daily to complete a clinical assessment of your baby and take their blood.

For the treatment to work best, phototherapy should be used on your baby's skin for most of the time (i.e. 24 hours a day). You can give your baby short breaks (up to 30 minutes) for nappy changing, feeding and cuddles. Your baby does not require any other special care.

How long will jaundice last?

The length of time babies remain jaundiced is different from one baby to another. Usually, bilirubin levels increase over the first few days then decrease slowly over the next week or two.

When a baby is on phototherapy, we do regular assessments and blood tests to check their bilirubin level. The level needs to be below a certain number before we can stop phototherapy. Blood tests are done by taking a small sample of blood from your baby's heel using the 'heel prick method.'

It usually takes at least a few days for the bilirubin levels to reduce enough to stop phototherapy.

Once phototherapy has been stopped, we take a further blood test within 24 hours to make sure the bilirubin level is not rising again. This will be done later the same day or the next day.

Red flag and escalation

Please make sure you monitor your baby's urine and stool output – here is what is normal for your baby at different ages.

Normal urine output

Day 1 to 2: 2 or more wet nappies per day; Day 3 to 4: at least 3 wet nappies per day; Day 7>: At least 7 wet nappies per day

Normal bowel movement

Day 1: 1 or more meconium

Day 3 to 4: > 3 changing stools

Day 5 >: at least 2 soft yellow stools the size of a £2 coin

If your baby's stools are pale or green, please let your midwife or Children's Hospital at Home nurse know. In this situation your midwife or Children's Hospital at Home nurse may feel your baby needs to be referred, back to hospital to be reviewed by a doctor or the specialist midwife / infant feeding team.

We are keen to support you with your baby's feeding however you would like to feed them. As your baby's jaundice gets better, you will find that they will start to feed better and become more active.

For feeding problems or problems related to your health please contact your midwife.

Red flags

Red Flags that need medical attention:

- ❗ Dark, yellow urine (a newborn baby's urine should be colourless)
- ❗ Pale coloured poo (it should be yellow or orange)
- ❗ More sleepy
- ❗ Unroutable
- ❗ Not waking for feeds
- ❗ Mottled skin
- ❗ Not passing urine
- ❗ Low or high temperature

Contact numbers

Community Children's Nursing Hospital at Home Team
Service Hours: 8am to 8pm, 7 days a week.

Phone: 01865 902 700

Horton Children's Ward – 8pm to 8am

Phone: 01295 229 001 / 01295 229 002

If you need to contact the Midwife team, please use the following numbers:

Horton Midwifery-led Unit: 01295 229 459

Midwife Assessment Clinic: 01295 229 779

Community Midwives: 01295 229 190

Infant Feeding Support on:

John Radcliffe Infant Feeding Clinic:

Phone: 01865 572 950

Other sources of support

National Breastfeeding Helpline: 0300 100 0212

Breastfeeding Network (BfN): 0300 100 0210

National Childbirth Trust (NCT): 0300 330 0771

Accessibility

An accessible version of this leaflet can be found on our website: www.oxfordhealth.nhs.uk/leaflets

Get in touch

Address Oxford Health NHS Foundation Trust
Trust Headquarters
Littlemore Mental Health Centre
Sandford Road, Oxford OX4 4XN

Phone 01865 901 000

Email enquiries@oxfordhealth.nhs.uk

Website www.oxfordhealth.nhs.uk

Feedback

Our Patient Advice and Liaison Service (PALS) provides advice and support to patients, families, and carers, helping to resolve any problems, concerns, or complaints you may have.

Phone 0800 328 7971

Email PALS@oxfordhealth.nhs.uk

Become a member of our foundation trust: www.ohftnhs.uk/membership

Support Oxford Health Charity, making a difference to patients, their families and staff who care for them: www.oxfordhealth.charity