

Phototherapy for Newborn Jaundice

Jaundice is a yellowing of the skin and the whites of the eyes. It comes from a yellow substance called bilirubin. Bilirubin is made when red blood cells break down. It's processed by the baby's liver. It then leaves the body through the baby's urine and stool. If babies aren't eating and stooling very much, it's harder for them to get rid of bilirubin.

Bilirubin makes the skin and the whites of the eyes look jaundiced (yellow). This is normal after birth because a baby's red blood cells break down more easily and their liver is less mature. In fact, about half of all newborns have jaundice in their first week of life. It's usually temporary and doesn't need treatment. But in some cases, more severe jaundice is a sign that the baby's body can't take care of the bilirubin quickly enough. If bilirubin levels get too high, they can be dangerous to a baby's developing brain and nervous system. In these cases, the baby needs phototherapy. This treatment helps speed up the breakdown of bilirubin by changing it into a form that can leave the body more easily.

How it works

Phototherapy lamp



Phototherapy helps your baby's body get rid of bilirubin faster.

One method to treat jaundice uses a phototherapy lamp. This method is often done in the hospital setting. Phototherapy is often prescribed in single, double, or triple units. This refers to how many light sources are used. Your baby's healthcare provider will determine if your baby needs phototherapy and how many units to use. Your baby will be placed under a special light. This light changes the form of the bilirubin in the skin. During treatment, the baby's eyes are covered for protection and comfort. The rest of the body is naked, except for a diaper. This way the light reaches most of the skin. The staff will change the baby's position often to make sure all of the skin is exposed to the light.

During phototherapy the provider will limit how often the treatment is paused. If the bilirubin levels are not severe, treatment may be paused for feeding and skin-to-skin care. The healthcare team will closely monitor your baby's bilirubin levels, temperature, and amount of fluids (hydration) during phototherapy treatment. Feed your baby often, Feeding 8 to 12 times daily will to help get rid of the bilirubin.

Bili-blanket

Another method to treat jaundice uses a fiber-optic pad or bili-blanket. This treatment may be done in the hospital or at home. For phototherapy at home, the healthcare team will give you written instructions on how to use the fiber-optic pad or bili-blanket. Your healthcare provider will order a home health referral.

The bili-blanket has a cover. Wrap your baby in a blanket. Make sure the covered lighted section of the pad is in contact with the baby's skin. Don't block the air vents of the fiberoptic box.

If you are breastfeeding, keep doing so during phototherapy at home. Early and frequent feeding lowers bilirubin levels. Feed your baby 8 to 12 times daily. You can remove the bili-blanket or pad when you feed your baby, but put it back on the baby's skin when done.

During treatment, it's important to keep your baby's skin clean. Don't use lotions or oils on the baby's skin. Change the baby's diaper often. Check the skin under the pad or blanket about every 2 hours and with diaper changes. Look for any breakdown of the skin in those areas.

Your baby will need a follow-up appointment with the provider for a blood test to check bilirubin levels. It's important to call your healthcare provider if your baby's skin becomes red, has a bad diaper rash, or remains yellow. Tell the provider if your baby refuses feedings, won't wake up, has any change in activity, arches their back or neck, or starts to have a high-pitched cry.

How long will phototherapy be needed?

Phototherapy may be needed for a few days to a week. Some babies can go home from the hospital and get phototherapy with special home therapy systems, such as a bili-blanket. The healthcare provider will determine how long your baby needs therapy and if it can be done at home. Wherever the therapy is done, you will be asked to limit the amount of time the baby spends out from under the lights. This is to give the best results possible for the treatment.

If the bilirubin levels are not too high, you may be able to hold your baby for feedings and skin-to-skin care. The baby may get fluids through an IV (intravenous) line at the hospital if the bilirubin levels are too high or rising. This causes the baby to urinate more often, so the bilirubin leaves the body as quickly as possible. Your baby's bilirubin level will be watched closely by the provider during phototherapy treatment. This will help them determine when therapy can be stopped.

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