



NEWBORNS RECEIVING *BILISOFT* PHOTOTHERAPY AT HOME

What you need to know

Your baby has been diagnosed with jaundice and needs phototherapy. Here's some information that will help you to understand your baby's condition and the treatment they will need.

Jaundice

Jaundice is caused by the buildup of a yellowish pigment called bilirubin in the blood. Bilirubin is a waste product produced by the destruction of red blood cells; it is eliminated mainly in the stool. In some newborns, bilirubin is not eliminated fast enough and it ends up accumulating in the blood, causing a yellowing of the skin or eyes (jaundice).

There are several reasons why elimination could take longer than normal, such as the newborn's immature digestive system, low milk intake in the first days of life, and delay in producing stool. But don't worry—this situation is common and is quickly treated with phototherapy.

Phototherapy

Phototherapy is the most effective way to treat jaundice in newborns. Several types of phototherapy systems are available on the market. The one used at the CISSS de la Montérégie-Ouest is an LED (light-emitting diode) system that emits a type of light that breaks down the bilirubin.

Once broken down, the bilirubin can then be eliminated in your baby's urine and stool, lowering the level in their blood. The success of the treatment depends largely on how long your baby is exposed to the phototherapy.



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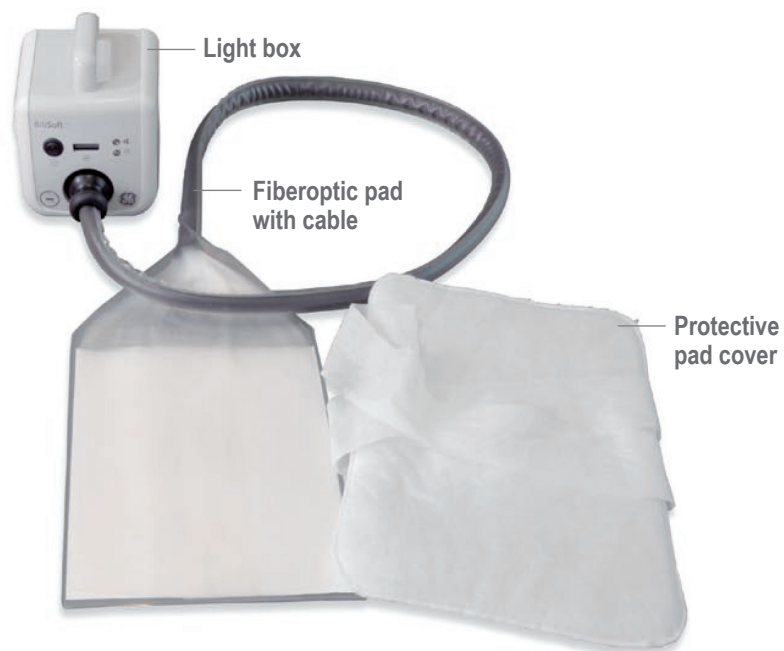
Steps

Your baby's phototherapy was most likely already started at the hospital, using a lamp positioned above an incubator, or using the *BiliSoft* phototherapy system (fiberoptic light pad), which you will continue to use at home. According to your baby's blood test results, we still need to continue the phototherapy for a while longer. For that reason, you will be sent home with the *BiliSoft*.

Some of the many advantages of at-home phototherapy are that it makes breastfeeding easier, since your baby is never far away from you. In turn, this helps with bonding. Being at home means you'll also get more rest than at the hospital; it will also make it easier for you to settle into your new routine. However, you'll still need to come to the nursery for appointments over the next few days to make sure your baby's bilirubin levels continue to drop.

However, if the bilirubin numbers are still too high, we may need to re-admit your baby to the nursery. That's why it's important to make sure you're properly set up at home, as this will increase the chances of the phototherapy succeeding.

Parts of the *BiliSoft* phototherapy system

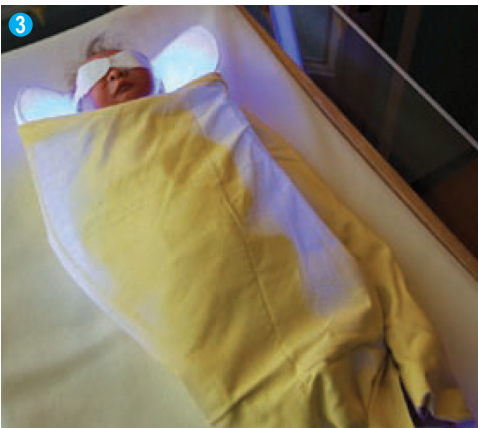




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Installation of the *BiliSoft* phototherapy system



Source of photos 1, 2, 3: Anadisc Medical Systems (n.d.).
BiliSoft phototherapy system: Intensive treatment through
contact therapy [brochure]. GE Healthcare

1. Place the protective goggles that were provided over your baby's eyes; they should be tight enough to stay in place but should not leave marks on the skin. **The protective goggles must cover your baby's eyes at all times while the phototherapy system is on.** (see photo 1)
2. Place the fiberoptic pad in the disposable protective cover. If the protective cover becomes soiled, you can replace it with a clean one.
3. Undress your baby, except for their diaper, and place them directly on the fiberoptic pad (with cover). **Make sure there is no blanket or clothing between the light pad and your baby.** (see photo 2)
- 4 **Cover** your baby with a blanket to keep them warm during the phototherapy sessions. (see photo 3)
5. Place the light box on a stable surface outside of your baby's crib (e.g., on the floor or on a side table).
6. Plug the power cord into an electrical outlet.
7. Make sure the cable for the fiberoptic pad is connected to the light box.
8. Turn on the phototherapy system ("on/off" switch) after making sure that your baby's eyes are covered with the protective goggles.
9. Turn off the phototherapy system ("on/off" switch) only when changing, washing, or feeding (breast or bottle) your baby. Remove the protective goggles during these times. For best results, **keep periods without phototherapy to a minimum (only during feedings and personal hygiene; maximum of 30 minutes, approximately every three hours)**. However, if you feel comfortable holding your baby and the light pad at the same time, you may decide to continue the phototherapy during feedings; just make sure to keep the baby's protective goggles on at all times



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Make sure your baby
is wearing the protective
goggles at all times
when the *BiliSoft* is on.

Feed your baby
at least every three hours
or as soon as they
show signs of hunger.

Related care and monitoring

- Remove protective goggles during feedings and personal hygiene (changing diapers, bath, etc.). Make sure to clean the baby's eyes at least once a day. Consult your copy of [From Tiny Tot to Toddler: Practical guide for parents](#) as needed (baby bathing technique).
- Take your baby's temperature under the armpit every other feeding. It should be between 36.5 °C and 37.2 °C.
 - If it's below 36.5 °C, add an extra blanket and check it again before the next feeding.
 - If it's above 37.2 °C, remove a blanket and check it again before the next feeding.
 - Keep a record of the temperature readings in the chart provided with this document ("Monitoring – At-home phototherapy").
 - If your baby's temperature is the same at the next feeding (after removing or adding a blanket), let the nurse at your hospital's nursery know; she'll assess the situation by phone and walk you through the next steps.
 - If necessary, turn up the heat in your baby's room (18 °C to 22 °C is a good range).
- Make a note in the "Monitoring – At-home phototherapy" chart whenever you see urine or stool during diaper changes. Consult your copy of [From Tiny Tot to Toddler: Practical guide for parents](#) as needed (number of bowel movements/wet diapers per day depending on your baby's age).
- Check your baby's skin under the protective goggles, on their back, and other places touching the fiberoptic pad. If pressure points appear on your baby's face, loosen the goggles, but make sure they stay in place when your baby moves around. You should not see any broken skin, redness, or chafing. If you do, let the nurse know at your next appointment.
- Avoid using moisturizing creams for as long as the phototherapy lasts.



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Warnings and precautions

- Do not use the system while providing hygiene care to your baby (diaper changes, bath, etc.).
- Do not leave the light pad on unless your baby is wearing the protective goggles.
- Always turn the phototherapy system off before removing the protective goggles.
- Do not place the *BiliSoft* system on an uneven surface or near a bathtub or sink that it could fall into.
- If the *BiliSoft* is immersed in water, or if a liquid is accidentally spilled on it, unplug the electrical cord before handling it further.
Stop using the system and call the nurse.
- Never block the light box air vents, and never place the light box on a soft surface, such as a bed, where the vents could become blocked.
- Keep the *BiliSoft* away from hot surfaces.
- Do not place sharp or heavy objects on the fiberoptic pad, as this could damage it.
- Do not drop or strike the device.

Contact information

If you have any questions or concerns, please contact the nurse at your hospital's nursery:

- **Birth Pavilion**
Hôpital Anna-Laberge
450-699-2425, ext. 2463
- **Mother-Child Centre**
Hôpital du Suroît
450-371-9920, ext. 2146

References

- Anandic Medical Systems (n.d.). *BiliSoft* phototherapy system: Intensive treatment through contact therapy [brochure]. GE Healthcare.
- Doré, N. & Le Hénaff, D. (2020). From Tiny Tot to Toddler: Practical guide for parents. Institut national de santé publique du Québec.
- Guérin, M. (n.d.). BiliTX, at-home phototherapy system

Our mission

To maintain, improve, and restore the health and well-being of the Québec population by making accessible an array of integrated and quality health and social services, while contributing to the social and economic development of Québec.

Our vision

Accessible and efficient health care and services that adapt to the needs of Québécois.

Our goals

The CISSS de la Montérégie-Ouest achieves its goals through its innovative approaches and stands apart through:

- its exemplary offer of care and integrated services based on interdisciplinarity, accessibility, and adaptability to the needs of its population;
- its willingness to question and improve its professional, clinical, and administrative practices;
- its appreciation of its personnel and the implementation of human resource management practices;
- its strong relationships with its partners.

Our values

Our actions are guided by five equal and interconnected values: compassion, collaboration, commitment, confidence and consistency.