

Light and Vision

Light



- ▶ When your baby was in the womb, there is little to no light. Imagine being in a dark room and having someone turn on the lights, but your eyes don't adjust. This is important for a few reasons
 - ▶ 1st - This means their eyes are very sensitive to light when they are first born and need to be protected.
 - ▶ Please make sure your baby's eyes are covered with a bonding blanket, extra baby hat, or your hand any time direct light is shining into their isolette.
 - ▶ The younger your baby is, the longer they need protection from bright, direct light.
 - ▶ 2nd – Being exposed to direct, bright light doesn't necessarily damage visual development, but it can have a negative affect on your baby's sleep and stability.
 - ▶ Less sleep and more episodes of decreased heart rate/decreased oxygen rates (periods of less oxygen in the blood feeding the brain) = negative affects on normal brain development

Light



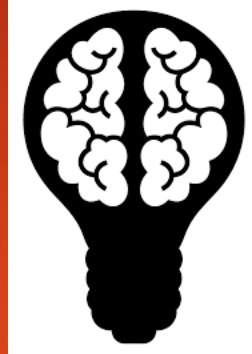
- ▶ 3rd – When babies are developing in the womb, they are exposed to mom's hormones that sets a baby's sleep cycles (knowing the difference between day and night).
 - ▶ A preemie needs help with setting this cycle by being exposed to darkness at night and dim light during the day once they hit the right age.
 - ▶ When your baby is the right age, we can begin light cycling in stages (see the developmental care plan in their room to help you remember).
 - ▶ 1st the black out blind will be lifted
 - ▶ When looking at your baby and doing cares for him/her, approach the isolette from the side closest to the door, so he/she is not startled by the light.
 - ▶ 2nd we will start leaving 1-2 flaps on the cover up during the day
 - ▶ 3rd The cover will be removed
 - ▶ 4th the isolette top will be popped
 - ▶ 5th The partial light blocking shade will be lifted

Light



- ▶ In our unit every room has a window with blinds. These are our general guidelines for the window blinds to help limit direct light exposure:
- ▶ **Window Blinds Guidelines For Babies by Gestational Age:**
 - ▶ Infants younger than 28 weeks:
 - ▶ Keep the light filtering shade down at all times **AND** darkening shade ½ way down.
 - ▶ Stable infants older than 28 weeks:
 - ▶ Keep the light filtering shade down at all times.
 - ▶ Stable infants older than 38 weeks:
 - ▶ The darkening shade can be up 1/3 of the way from the bottom, but **not** higher, and the light filtering shade can be used as needed.
- ▶ **At Night:** It is best to keep rooms dim by only using the night light or covered sconce light by the parent area between cares.

Light



- ▶ If you are sleeping/napping during the day or visiting at night, please keep in mind that this is your baby's room and his/her needs for light exposure should come first.
 - ▶ If you close the blinds during the day so you can sleep/nap more comfortably, while we are working on weaning the isolette cover and giving more daytime light, you may be limiting the amount of light your baby is exposed to.
 - ▶ If you visit at night and turn all the lights on your baby may get too much exposure to light and think it is day time.
 - ▶ This can cause your baby to get mixed up on days and nights. This can lead to poor sleep, difficulty with arousing for feeds which will be frustrating at home as he/she may be up all night and sleeping all day.

Vision



Vision is the last
of our 6 senses
to develop.

Development
happens near
or after term.

Development
of vision only
occurs during
REM Sleep.

Vision



Development happens without outside input. Early exposure to additional visual stimulation is not needed and can be detrimental.

- This means we can't exercise the eyes to make vision develop earlier/faster.

Outside input is important after term, when brain pathways have been established.

One of the first things babies can recognize visually is their mom & dad's faces.

Vision



- ▶ **What Can We Do To Promote Good Visual Development?**
- ▶ Encourage good sleep at all ages
- ▶ Remember babies have no pupillary reflex and need to have their eyes protected from direct light prior to term
- ▶ Follow our light guideline listed on previous slide (see developmental care plans posted in your room for reminders)
- ▶ Interact with your baby at a close distance when appropriate
- ▶ Introduce visual stimulation (black and white cards/mobiles) at appropriate times (OT will implement these if appropriate)