



You and Your Baby's Sensory Development (up to 32 weeks)

All babies, born prematurely or not, have brains that are not yet fully developed. Time is the only thing that helps this development. However, there are certain things that are helpful for you to know, and be sensitive to, while your baby's brain continues to develop.

Having a premature baby in the Neonatal Intensive Care Unit (NICU) might make you feel like the doctors and nurses are giving your baby everything they need, but YOU are really important to your baby and they need YOU!

Please be sure to ask your baby's nurses about anything in this pamphlet that you are not sure about or would like more information about.

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You and Your Baby's Sensory Development

Here are some very important things YOU and ONLY YOU can provide for your baby:

- YOUR breast milk
- YOUR voice
- YOUR scent
- YOUR touch
- YOUR love

Your premature baby's senses develop along with their brain and there are things you can do for your baby's development at different points in their early life.

The Role of Sleep:

Sleep plays an important role in the development of all the senses. The premature baby spends much of their time asleep and most of this time in the "Light Sleep" state, also called the REM or active sleep state. During

this time the baby may move quite a bit, have uneven breathing, and make little noises. During the "Deep Sleep" state the baby is usually very still with more even breathing. This tends to be a more restful sleep that allows for more development of the brain and the senses. The amount of time a preemie spends in deep sleep increases gradually from 22-40 weeks gestation and beyond.

WHAT CAN YOU DO?

- DO try to engage with your baby when they are in a more alert state and know that this alert time increases gradually each week.
- DO know that whenever possible, staff will also try to "protect your baby's sleep" by doing cares and tests/procedures when your baby is more alert.

SOUND/HEARING

What can you do?

- DO keep your voice low when speaking to your baby or while speaking to others when near your baby.
- DO speak, read, or sing softly to your baby because hearing parents' voices helps babies develop language later on.
- DO shut the doors of your baby's Giraffe/isolette, cabinets and drawers nearby gently and quietly.

WHY?

In the womb, the baby is protected from loud noises and the sound level usually does not go above about 40 decibels (dB) - the sound level in a quiet home. In the NICU, the premature baby might be exposed to sound levels they are not ready for if noise around them is not controlled, especially in the first few weeks of life. Premies that are overstimulated by sound or other senses may "tell you" by showing stress signals such as sneezing, hiccupping, yawning or even dropping their heart rate or oxygen level.

As you spend more time with your preemie, you will get to know their stress signals and you can help respond to these signals by giving them the best environment possible for growth and development.



For more info or references:

- <http://www.marchofdimes.org/flash/modpreemie/preemie.html>
- <http://www.peekabooicu.net/2012/11/the-importance-of-sleep-and-the-premature-baby/>

TASTE and SMELL

What can you do?

- DO try to provide your breast milk for your baby.
- DO talk to your baby's nurse about swabbing the inside of your baby's cheek with colostrum (first milk pumped) or fresh breast milk (never frozen).
- DO pump 8 times a day (about every 3 hours) and manually express breast milk.
- DO consider pumping at your baby's bedside. Pumping near your baby can help increase milk production.
- DO leave a scent circle (with your scent on it) with baby for comfort when you are not able to be with him/her.
- DO join the staff in avoiding use of scented lotions and perfumes.
- DO avoid smelling like cigarette smoke.

WHY?

By 15 weeks, the fetus is able to taste and smell. Each mother's amniotic fluid and breast milk have a unique quality familiar to her infant. This means colostrum and amniotic fluid have the same taste and smell. So, being able to smell (via scent circles and skin to skin care) and taste mom's breast milk will maintain the infant/mother bond long before the infant is able to feed at the breast.

Also, breast milk for preemies is special and helps protect them from infections and helps lead to better outcomes.

Swabbing the inside of your baby's mouth with colostrum/fresh breast milk also delivers important antibodies that can help prevent infections and helps keep baby's mouth and lips moist and healthy.



TOUCH

What can you do?

- DO always touch your baby with clean or clean and gloved hands (gel before you touch EVERY time).
- DO help keep your baby as still as possible during the 1st three days of life. You can do hand hugs (gently cup your baby's head and feet) during this time. Keep legs below level of head during diaper change.
- DO comfort your baby with gentle, steady touch (avoid rubbing) when they show signs of stress or are having any tests or procedures done.
- DO kangaroo care/skin to skin often after the first three days of life.
- DO ask your nurses about helping with "two-person care" for your baby.

WHY?

The very premature baby's skin is thin and their sense of touch gradually develops until around 35 weeks; so gentle, steady touch is more comfortable and comforting early on.

Kangaroo Care (KC), or skin to skin care, is when you hold your diapered baby against your bare chest. This helps increase the time your baby spends in deep sleep and helps him spend more time quiet and alert with less time crying. This is important in helping the baby learn to transition from one sleep state to another. KC also helps your baby maintain his/her body temperature, regulate his/her heart rate and breathing, gain weight, and can increase mom's milk production.

VISION

What can you do?

- DO help keep the lights dim or off around your baby's bed.
- DO feel free to cover your baby's eyes gently with a cloth or your hand if you see staff need to use bright lights to perform a task.
- DO try to keep your baby's giraffe bed covered until about 32 weeks (consider lifting the side of the cover when reading softly, doing a hand hug, or to watch your baby).
- DO cover your baby's eyes with a cloth for 4-6 hours after their eye exam.
- DO bring a black and white picture to hang in the isolette for your baby to look at beginning at 29-32 weeks gestation.

WHY?

The infant visual system can develop fully in the absence of light. In fact, studies have shown that premature infants less than 32 weeks gestation do not need to be exposed to light or to 'see' things. They need to be protected from bright lights and especially from direct light to the eyes.

Around 32 weeks gestational age, the nurses will gradually increase the amount of light your baby is exposed to by slowly uncovering the giraffe bed or using a smaller blanket. At this time, your baby will also begin to be exposed to a day/night light pattern. After 32 weeks gestation, visual experiences and exposure to light are necessary for the best possible development. Infants born full term see light and dark shadows. Colors are integrated into vision later and vision is not perfectly clear until about 1 year of age.

Helpful NICU Phone Numbers

Main NICU.	973-322-5300
Case Managers	973-322-5909/2678
Lactation Consultants.	973-322-9088
Nurse Manager.	973-322-8938
Social Worker.	973-322-5503
Family Advisory Council Coordinator .	973-322-9486

Many of the NICU Family Resources are available on our website: rwjbh.org/sbmcnicu