

SENSORY RECOMMENDATIONS

FOR NEONATAL UNIT



Information on sensory development to support
a close and loving relationship between you and
your baby.



SENSORY
BEGINNINGS



SENSORY DEVELOPMENT IN THE WOMB

AUDITORY

- / All major structures of the ear are in place between 23 and 25 weeks
- / Foetus can perceive and react to auditory information starting at 25 weeks of life
- / 26-30 weeks hair cells in the cochlea are fine tune for specific frequencies
- / 28 weeks can tell the difference between father voice and mothers voice
- / 34 to 36 weeks can distinguish between different moods or emotional qualities to speech



INTEROCEPTION

- / c-afferent nerve fibres begin to develop early on
- / emotional, regulatory needs are met

VESTIBULAR

- / Semicircular canals function in utero, otolith organs are fired on as soon as the baby is born.
- / 23-24 weeks weak moro reflex.
- / 30 weeks full moro response in preterm



PROPRIOCEPTION

- / Twitches at 7-8 weeks. Whole body moving at 9 weeks.
- / Breathing, jaw and tongue movements at 11 weeks.
- / Hand to placenta, umbilicus 11 weeks

TACTILE

- / 8 weeks fetus develops sensitivity to tactile stimulation
- / 12 -15 weeks grabs the umbilical cord, brings hand to face and sucks on thumb
- / 20 weeks skin receptors cell are in place all over the body.
- / 24 weeks the cortical pathways for touch are intact
- / 28 weeks capable of fine manual capabilities



VISION

- / 22 weeks: eyelids are developed, fused and thin, allowing light penetration.
- / 23-25 weeks: myelination of optic nerve begins. Eyelids separate and eye lashes form.
- / 25-26 weeks: neurones of the optic nerve are present.
- / 28-40 weeks: rapid growth of the eye.
- / 30-32 weeks: slow pupil constriction to light

TASTE

- / 8 weeks gestation receptors formed
- / 14-16 weeks: taste buds able to detect taste
- / 24/27 weeks: reacts to a bitter (e.g. medications or gel on your hands) Detects irritants.
- / 28-29 weeks: reacts to sweet and sour. Babies born at this stage may respond positively to mothers milk.

SMELL

- / 9 weeks nasal cavity is formed
- / 13 weeks olfactory nerves connect to the brain.
- / 17 weeks foetus swallows liquid
- / 28 weeks foetus can smell and respond to odors in the amniotic fluid.
- / 34 weeks swallowing 750ml of amniotic fluid daily

OUR SENSES

We all have eight senses that help us engage, understand, and move through the world.

Our senses are: touch, smell, hearing, taste, sight plus... vestibular (our sense of balance and movement), interoception (understanding what's going on inside our body) and proprioception (self movement and body position).



TOUCH

- / Use soft, gentle touch in all caregiving interactions.
- / Provide neutral thermal environment.
- / Try skin to skin for an hour or more, every day.
- / Hold your baby gently, rest your hand on their head and by their feet.
- / Gently offer them a finger to hold onto.
- / At 32 weeks and above work with the neonatal team to provide gentle holds and massage.



SMELL

- / Place a muslin or scented cloth in your baby's bed, your smell will help them to feel comforted.
- / Remember don't wear any perfume or aftershave as your baby needs to smell you.
- / Take something home with you that smells of your baby, you need to smell them as much as they need to smell you.

HEARING

- / Try to speak in your library voice 45 Db or below, it is very important we protect your baby's sleep.
- / Reading books, talking softly and singing lullabies are very important for language development, but watch your baby's behaviour they will tell you if they are enjoying it.



TASTE

- / Provide gentle oral mouth cares, your neonatal team will work with you to provide supportive taste.
- / Providing EBM (early breast milk) on a soother, will give positive taste experiences while your baby develops their suck.
- / Remember you can use EBM on a soother to help manage your baby's pain.



SIGHT

- / It is important to protect your baby's vision, below 32 weeks their eyelids are very thin and their pupils can't constrict.
- / They need a cover to protect them from bright lights.
- / As they get older the introduction of natural lights helps with sleep cycles.

VESTIBULAR

- / Always talk first, then touch, then move your baby.
- / It is easier for them to be moved on their side or on their tummy.
- / Try to keep them flexed and tucked when you move them, like they would be in the womb.
- / From 32 weeks you could add gentle movement, when you hold them, gently sway from side to side, watch your babies behaviour they will tell you if they like it.



INTEROCEPTION

- / Provide prolonged opportunities for skin to skin and early breast milk



PROPRIOCEPTION

- / Support your baby to sleep in flexion, comfort, supported and aligned.
- / Support your baby to hold on to your finger, bring their hand to their face.
- / Provide your baby with a high nest for their bedding, so they can push their feet against the edge.



Remember *always work with your neonatal team* to discuss age appropriate sensory interventions.



SENSORY
BEGINNINGS

For more information on sensory development, neonatal care and early intervention, please go to www.sensorybeginnings.com

