Potential Developmental Differences Affecting Preterm Babies in the Early Years
Lessons from the Preemie Play and Learn Group
Jolene Pearson PhD - Bethel University St. Paul, MN

Motor:

Muscle tone may be heightened/lessened or more varied in comparison to expectations of full-term infants. May be prone to “transient dystonia”.

Initial greater difficulty with flexor patterns of movement, (pull-to-sit, head, neck stability, hands to midline, hands to feet, sitting stability, etc).

Most motor accomplishments are achieved with greater effort than full term infants’ movements may be labored, less “ease of motion”. Tendency for some clumsiness, gross or fine motor, as compared to term.

Plateaus in between achievements may be more drawn out, frustrating. Sometimes skills “clump” together after long periods of waiting.

Infants can be quite frustrated with discrepancy between what they’d like to do, and what they are actually capable of.

Social/Communication:

Can be very sensitive infants, with tendency to overreact. “Intense” personality, giving “all or nothing” responses. Once upset, may be harder to console.

Signals or cues from infants are often unclear. “Is the baby still hungry or full?” “Wanting to be held or left alone in the crib?”

Tendency for less-developed “social repertoire” of coos, smiles, etc. May fuss or avert gaze frequently in social situations - not because they’re anti-social, but probably over stimulated.

Family social structure/habits may be initially altered because of infants’ need to be restricted from crowd contact (grocery stores, movie theaters, family gatherings, etc.).

May elicit less “playful” behaviors and therefore infant/parent interactions may be more serious for greater parts of the time. Infants and parents may have “less fun” early on.

Learning Behaviors:

Preterm infants are likely to do less well initially on infant developmental measures or tests than full term peers, probably due to greater difficulty in focusing attention. Once the preterm infant’s attention is focused, they are usually physically less able to act upon tasks in the expected manner.

May need more repetitive play in order to accomplish the skill than full term peers.

Initial learning skills, i.e.: visual-motor skill, etc., may take longer to mature and develop.
Attachment:
Process occurs much differently, and may take longer, for preterm infants and parents, but the end result may be that attachment is both deep and riche, for having been through so much together as a family.

Developmental Guidance
(Ideas and suggestions used in PPP & L classes to encourage preemie infant/parent development)

Parents are encouraged to:

- Correct for prematurity until baby shows us that it’s no longer important, or that his/her skills have blended into peer expectations;
- Not compare preterm development with full term development, although do look for similarities;
- Be concerned not with the timeline of when skills are achieved, especially motor, but rather with the progression of development;
- Acknowledge the unique developmental styles of each individual infant and support it - not try to change it;
- Investigate early intervention programs in your area; they can be very helpful;
- Pick up a good book on infant play and try a variety of activities, noting which are favorites;
- Zero to Three has many resources for parents with children in the birth to three range [https://www.zerotothree.org/](https://www.zerotothree.org/);
- Pathways.org EXCELLENT resource for parents, has short videos, developmental checklists and more. [https://pathways.org/](https://pathways.org/);
- MN Pregnancy Post-Partum Support Network [https://www.ppsupportmn.org/](https://www.ppsupportmn.org/);
- MN Help Me Grow when parents are concerned [http://helpmegrowmn.org/HMG/index.htm](http://helpmegrowmn.org/HMG/index.htm);
- Respect baby’s threshold for play and activities - “A little well done is better than too much”.

**Practical Suggestions**

1. Singing to baby can either be soothing or playful, and is a great way to encourage visual/auditory attention.
2. When purchasing toys, think about how the baby can use cause/effect strategies and solving techniques.
3. Encourage lots of floor play. This helps foster motor skills, exploration. We discourage the use of restrictive pieces of equipment such as walkers, or prolonged use of infant seats, johnny-jump-ups, etc.
4. Encourage motor activities which may be less liked/more difficult for your premie;
   a. Tummy lying - it can be fun!!
   b. Rolling
   c. Body exploration - hands together, hands/feet together
   d. Sitting
   e. Finger feeding - picking up objects
5. Encourage learning through all 5 body sense - “sensorimotor learning”. Show baby what things feel like, smell like, hear like, move like, look like.
6. Invest in a few inexpensive pieces of play equipment like a beach ball, inflatable bolster, etc., and use for variety.