School of Medical & Allied Sciences

Course Code : BPT413

Course Name: Physiotherapy in Neurological Condition-I

Neonatal Reflexes

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Definition: Neonatal reflexes are inborn reflexes which are present at birth and occur in a predictable fashion. A normally developing newborn should respond to certain stimuli with these reflexes, which eventually become inhibited as the child matures

Moro Reflex:

Stimulated by a sudden movement or loud noise.

- •A normally developing neonate will respond by throwing out the arms and legs and then pulling them towards the body (Children's Health Encyclopedia).
- Emerges 8-9 weeks in utero, and is inhibited by 16 weeks (Grupen).

Palmar Grasp

- Stimulated when an object is placed into the baby's palm.
- A normally developing neonate responds by grasping the object.
- This reflex emerges 11 wks in utero, and is inhibited 2-3 months after birth.
- A persistent palmar grasp reflex may cause issues such as swallowing problems and delayed speech (Grupen).

Babinski (Plantar) Reflex

- Stimulated by stroking the sole of the foot:
 - toes of the foot should fan out
 - the foot itself should curl in.
- Emerges at 18 weeks in utero and disappears by 6 months after birth (Grupen)

Asymmetric Tonic Neck Reflex The child is placed on their back and will: – make fists – turn their head to the right. •This reflex is present at 18 wks in utero • Disappears by 6 months after birth (Grupen) **Tonic Labyrinthine Reflex** Arms and legs extend when head moves backward (away from spine), and will curl in when the head moves

forward.

Galant Reflex

•The neonates back is stimulated – their trunk and hips should move toward the

side of the stimulus.

- •This reflex emerges 20 wks in utero and is inhibited by 9 months.
- •This turning of the torso aides in neonatal and toddler movement, such as crawling and walking.
- •However, if the reflex persists, it can effect walking posture

Stepping Reflex

- •Neonate will make walking motions with legs and feet when held in an upright position with the feet touching the ground.
- •This reflex appears at birth, lasts for 3-4 months, then reappears at 12-24 months.

Landau's Reflex

- •When neonate is placed on stomach, their back arches and head raises.
- •Emerges at 3 months postnatally and lasts until the child
- is 12 months old.
- If this reflex does not occur, it is an indication of a motor
- development issue
- generalized intellectual impairment
- cerebral nalsy

Rooting ReflexThe baby's cheek is stroked:

-they respond by turning their head towardsthe stimulus

-they start sucking, thus allowing for breastfeeding.

•This reflex is inhibited anywhere between 6 and

Primitive Reflexes and Swallowing

Some primitive reflexes interfere with achievement of swallowing.
 If the Moro Reflex is strong...

there can be many interruptions with feeding if the child is constantly reacting to noises or sudden movements

– A present Tonic Labyrinthine Reflex ...

- may cause problems with the holding and/or positioning for feeding,
- can also change the position of hypopharanx, leaving less room in the esophagus for food to travel.
- A strong Asymmetric Tonic Neck Reflex ...

• can cause constant lateral head turning which may cause problems for feeding (Jacobson, p.44).

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THANK YOU