Normal Development and ‘Red Flags’

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Does this look and sound familiar?

• My child is not developing normally please help!!!!
‘Red flags’

• Awareness of normal

• Identify abnormal

• Refer to Paediatrician, Specialist

• Support
Outline

• Definition of Child Development
• History taking
• Physical examination
  Child developmental milestones and ‘red flags’
• Gross motor
• Fine motor/vision
• Hearing/attention
• Speech/language
• Social development
Definition

• A process whereby an individual achieves physical, social and mental independence and finally can take responsibility for others

• Dependent on normality in:
  Hearing, vision, motor skills, cognitive ability, communication, physical, emotional
History taking

• **Pre/Perinatal history**
  Pregnancy- maternal age, health, smoking, alcohol, recreational drugs, intrauterine infections (CMV, rubella, toxoplasmosis etc), poor fetal movement/polyhydraminuous
  Delivery- Prematurity, low birth weight, apgars
  Birth injuries
  Neonatal/newborn- feeding/hypoglycaemia, infections, hyperbilirubinaemia, seizures, hypoxic ischaemic injuries
History

• Postnatal - Infections, injuries (NAI, accidental)

• Psychosocial - attachment, social deprivation

• Family history - genetic, medical, learning disabilities
Physical examination (clues)

• Birth weight, head circumference, fontanelles
• Dysmorphic features
• Absent red reflexes/ nystagmus
• Skin pigmentation
• Tremors/spasms
• Abnormal startle reflexes, fisting
• Floppy baby/excessive head lag
Normal development and ‘red flags’

• Gross motor skills
Newborn- complete head lag
4 weeks- head lag but beginning to develop some control
6 weeks- chin off couch
12 weeks- chest off couch
6 months- sits supported
8-10 months- sits unsupported, crawl
12-15 months- walks independently, creep upstairs
Describe the posture of the neonate
Reflexes

Significance of Reflexes

moro reflex
What is this reflex called?
New-born check

• Identify the normal and abnormal
What can you spot in this slide?
What’s the name of this posture?
Is this a normal posture?
Red flags - gross motor - pathways awareness foundation

- Rounded back
- Unable to lift head up
- Poor head control
- Difficult to bring arms forward to reach out
- Arches back and stiffens legs
- Arms held back
- Stiff legs
Red flags - gross motor

- Unable to take steps independently
- Poor standing balance, falls frequently
- Walks on toes
How old are they approx?

Sitting
Crawling- variations

Variations
Preparation for walking

Further progress
Red flags....

- Late walker (bottom shuffler)
- Cerebral palsy - moro’s reflex beyond 2-3 months, fisting, dragging foot behind when crawling, not using one hand, tip toe walking
- Muscular disorders - poor tone, excessive head lag, ‘frog like’ posture
- Bone and joint abnormalities
Fine Motor Skills and Visual Perception

- Fine motor skills refers to small and precise movements such as those of the hands. It can also include movements of the small muscles of the face and mouth.

- This domain also includes vision, as this is important in hand-eye coordination and social functioning.
INFLUENCES ON FINE MOTOR DEVELOPMENT

- Visual Perception
- Learning From Experience
- Motor Planning
- Sensory and Motor Integration
Fine motor

• Brings hands to mouth and watches the movements of his/her hands (0 to 3 months)
• Reaches, grasps and brings hands to midline (3 to 6 months)
Fine motor skills

• Transfers objects hand to hand (6 to 9 months)

New communication intervener training
Uses a neat, tip to tip pincer grasp on small, pellet-sized items-9 to 12mos.

**Pincher Grasp**

- popping bubble wrap
- picking up small objects
- tying bows
- using pushpins
- sewing cards
- stringing beads
- putting pegs in pegboards
- putting clothespins on edges of cans or jars
- using an eyedropper
- putting coins through a small slot
Fine motor skills

• Scribbles with a crayon using whole arm movements (12 to 18 months)
• Snips paper with scissors (18 to 24 months)
• Imitates a circle and vertical and horizontal lines (2 to 3 years)
• Stacks five to seven small blocks (3 to 4 years)
• Touches each finger to thumb (4 to 5 years)
• Writes first name (5 to 6 years)

New communication intervenor training
Red flags

• Using one side persistently

• Abnormal palmer/pincer grasp

• Unable to play with a variety of toys

• Difficulty with activities – cutting, feeding, dressing, throwing etc

• Writing difficulties
Red flags

- Cerebral palsy
- DCD
- Muscular disorders
- Neurological disorders
- Joint/bone abnormalities
Progression of visual recognition

1. Responds to light at birth
2. Preference for mother's face
3. Recognises people
Visuo-motor skills

follows dangling toy

holds toy but cannot yet co-ordinate hands and eyes
Vision- red flags

• Child not:
  Focusing on main carer’s face by 3 months

  Following objects with eyes 4-5 months

Exploring surroundings 7-12 months. Move eyes and hands together e.g. stacking blocks 2 months-2 years
Red flags

- Blindness - facial grimacing, eye boring, flapping of hands, bumping into things, holding toys close to eyes

- Squints, refractive error, colour blindness

- Attachment (postnatal depression)

- Autism - poor social interaction, restricted patterns of behaviour/play, bumping into things (poor spatial awareness/coordination)
Hearing/attention- red flags

- Child does not:
- Startle to loud sounds- 6-8 weeks
- Quieten to main care’s voice- 3 months
- Turn towards sound source- 4 months
- Imitate sounds- 6-8 months
- Recognize name- 12 months
Red flags

- Does not respond to name
- Early babbling stops
- Talks loudly
- Poor attention
- Comes close to TV/increases volume
- In ‘dream world’
- Fever/discharging ears/pulling ears
Red flags

- Deafness (congenital/acquired)
- Sensorineural
- Conductive (‘glue ear’)
- Family history of deafness
- ADD/ADHD? Short attention span, fidgetiness
- Associated medical conditions e.g. Allport's syndrome, Usher’s syndrome
Speech/language- red flags

• The child does not:
• Coo with pleasure- 3 months
• Babble – 6 months
• Understands ‘no’, ‘bye bye’- 9 months
• Understands own name, 1-2 words- 12 months
• 10-20+ words- 18 months
• 50-70% speech intelligible, 2 word phrases- 24 months
Red flags

- Stuttering, bilingual
- Selective mutism
- Semantic pragmatic deficit (ASD)
- Verbal dyspraxia (poor motor programming)
- Drooling/feeding difficulties - mechanical
- Neurological - dysarthria
- Genetic/chromosomal syndromes (Down’s, Angelman’s, Fragile X)
- Acquired-head injury, epilepsy, landau-Kleffner, cerebral infections
Social skills- red flags

• Not smiling at by 6 -8 weeks
• Poor response to main caregiver
• Poor eye contact when fed
• By 18 months- failure to acquire pretend play and joint attention, social pointing
• Poor social interaction
• Poor pretend play, repetitive/obsessive behaviours
• Challenging behaviours (emotional, mental, ADHD, child abuse)
References

