

Causes and types of developmental disabilities

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Introduction



- Development : Process of maturation or acquisition
- Neurodevelopment : Acquisition of basic gross & fine motor skills. Depends to a great extent on maturation of neural tissue.
- Cognitive development : depends upon genetic & environmental factors. In early childhood difficult to differentiate from neurological & behavioural maturation.
- Complex & dynamic process
- Periods of acceleration & deceleration

Development

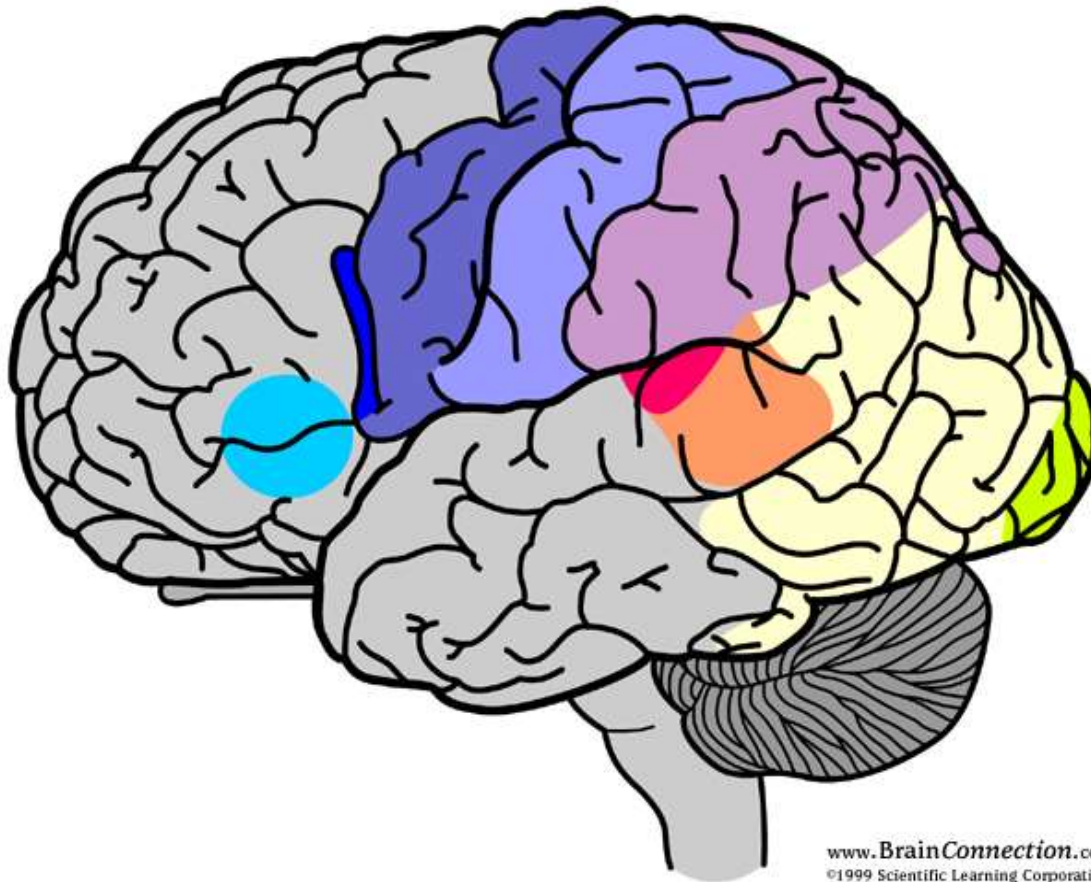
- Continuous process
- Definite sequence
- Head to toe
- Gross to fine
- Depends upon neurological maturation
- Influenced by external factors

Developmental Domains

- Gross Motor
- Fine motor
- Language
- Social, communication
- Adaptive
- Vision
- Hearing



Specific Areas in the Brain



Childhood Disabilities

- Disability :
 - Lack of or restricted ability to perform an activity in the manner or within a range considered normal by the society.
- Handicap :
 - A disadvantage for a given individual resulting from a disability that limits or prevents fulfillment of a role considered normal for that individual.

Cont....

- **Incidence: About 8-10% of children**
- **Establishment of Diagnosis: Essential for Intervention Plan**
- **Completeness of diagnosis: Availability of Experienced personnel and Lab services**

Types of Disabilities

- Physical defects / dysfunction
- Sensory deficits
- Intelligence / cognitive deficits
- Emotional disturbances
- Learning problems

Cerebral Palsy



Physical / Motor

- Poliomyelitis
- Cerebral palsy
- Loss of limb/s
- Motor neuron disease
- Neuro muscular disorders
- Muscular dystrophy



Sensory deficit

- Partial / complete blindness
- Partial / complete deafness

Speech and language disorders

- Disorders of articulation
- Disorders of voice-pitch, loudness
- Disorders of rhythm stuttering
- Disorders of expression

Disorders of Intelligence

- Mental Retardation
- Slow learners

Pervasive Developmental disorders

- Autism
- Asperger Syndrome

Learning disorders

- **Specific Learning disabilities**
 - **Dyslexia**
 - **Dysgraphia**
 - **Dyscalculia**

Causes of Disabilities

- Prenatal

Genetic, Chromosomal

Infections in mother

Exposure to toxic substances

Thyroid deficiency

Congenital defects in the brain

Causes

- **Perinatal**

- Deprivation of oxygen during birth

- Abnormal fetal presentation

- Difficulties during the process of labour

- Injury to the brain & bleeding in the brain

- Low weight baby

- Breathing problems

- Severe jaundice

- Severe infection

Causes -

- Postnatal

 - Infections of the brain

 - Iodine deficiency

 - Accidents & Head Injury → Bleeding & Hypoxia

 - Metabolic disorders : hypoglycemia, PKU

 - Malnutrition

 - Environmental causes : Lack of love, security, motivation, discipline

Needs of children with disabilities

A. Normal needs :

- Medical care, immunization, play, education etc.

B. Special needs :

- Special services - physiotherapy, early intervention therapy
- Special aids - Hearing aids
- Special equipment - Calipers, shoes, wheel-chair
- Special Education

C. Care of the whole family

Educational Needs

- **Main-stream education**
- **Remedial education**
- **Curriculum adjustment**
- **Changes in the examination pattern**
- **Concessions / Accommodations**

Our Roles

- **Developmental surveillance**
- **Identification of abnormality**
- **Assessment**
- **Remedial plan**
- **Treatment**
- **Rehabilitation**
- **Vocational training**

Thank you !

