

Home Based Therapy and Daily Care for Cerebral Palsy Children

Common problems: Delayed development, abnormal reflexes, lack of functional abilities, problems of hand function, unable to perform Activities of Daily Living properly, difficulty to play and vocational dependency.

Aim of Treatment: Minimise or control the spasticity, relaxation, integration of reflexes, improvement of functional ability, independence in ADL, providing assistive devices, cognitive development and independence in vocational activity.

General Guidelines:

- 1- Motivation of movement throughout the day. Movement must be varied but encourage normal pattern wherever possible.
- 2- Frequent changes of Child's posture. Maintain correct posture of each part of the body in different position.
- 3- Active and full range of movement to be encouraged through active work by rotation of the trunk.
- 4- Correct any asymmetrical posture, alignment, movement and balance while performing any activity.
- 5- Control involuntary movement, minimise the effect of pathological reflexes.
- 6- Active participation in activities of daily living for independence.

Problem oriented management:

- a) **Head control:** Encourage to rising of head while lying on tummy on the floor or wedge or on the lap of mother. Child will try to clearing of face and chest from the ground while weight bearing on arm or forearm. Reaching out of toys can be motivated by using one hand while maintaining the weight of the body on another hand keeping elbow straight as per the Child's ability.
- b) **Rolling:** Place the child in lying position on a blanket. Hold one side of the blanket and pull gently to facilitate /complete his rolling. Alternatively, place one of his arms over head. Encourage to roll by pulling of other hand.
- c) **Maintaining sitting position:** Sitting on the floor in long sitting position. Head in upright with trunk straight. Both hands to be placed along the side of the body for weight bearing to maintain the balance. Child can be sitted against the wall, corner of the bed or room, sitting on the bolster or low height bench maintaining horse riding position. Custom made CP chair improves head control, trunk control, provides better stability for hand function and prevent deformity. Reaching out object anteriorly, upward, downward, and sideways through unilaterally, bilaterally while sitting position and sitting to standing improves balance and stability.

- d) Prevent head extension thrust:** Side lying position, Hammock positing minimises discomfort. Encourage to maintain his head in flexion, hands towards the midline. Supine to side lying to sitting, hand to mouth movement and bilateral hand activities to be motivated. Correct positioning maintains symmetrical patterns of the body, improves stability of trunk and facilitates coordinated - midline oriented - bilateral hand functional activity.
- e) Difficulties in walking:** Abnormal walking pattern may be due to poor stability of the trunk, crossing of legs, wide base of support, absence of antero-posterior or lateral shifting, toe walking and lack of balance reaction. Encourage corrective pattern of mobility where ever possible. Assistive mobility devices such as Parallel Bar, Rolator, Elbow crutches, Walker, Walking stick or arrangements of furniture at home may provides support for walking. Training of Crossing obstacles and improvement of balance reaction requires for outdoor mobility.
- f) Feeding development:** Delayed Oromotor control of the mouth, Biting Reflex, Tongue Thrust may cause the problems of feeding. Types of food like liquid – semi solid – solid, assistive devices like modified spoon, plate, development of friendliness with the child may assist feeding. Child should Sitt on chair with cut-out tray for better hand function. Asking to bend his head forward to facilitate swallowing and to prevent chocking. Encourage to drink water by using spoon, glasses or straw.
- g) Training of Activities of Daily Living:** Motivate the child to perform his daily living activities independently. It includes feeding, drinking, dressing, undressing, toileting, bathing, grooming, indoor mobility, outdoor mobility, communication, house hold activities.
- h) Assistive devices for Positioning: Sitting Devices-** Corner seat, Engine seat, Low height bench with cut out table and CP Chair with adjustable armrest, footrest, backrest, headrest, Pammel, small wheels or big wheels with cut out tray and back inclination system. **Standing Devices-** Inclined or prone standing, Vertical standing, Flexi stand, Cut out table. **Toileting Devices-** Relaxed Potty seat, Tri angular Potty seat, Stool with hole. **Mobility Devices-** Scooter Board, Chair with Custer wheel, Engine seat with Wheel, Spider Walker, Wheel Chair.