



How to support children with Dyskinetic Cerebral Palsy

What kind of treatment could help children with dyskinetic cerebral palsy?

Base on the severity and functional status of individual child, treatment modalities can include:

1. Oral medication treatment for improving children's muscle tone.
2. Rehabilitative therapies to maintain and improve mobility, strength and function.
3. Rehabilitative equipment such as positioning aids to support sitting or standing, orthosis and straps to stabilize the body parts.

What are the medical interventions which could help to reduce the muscle tone?

1. Oral medications can be used to reduce the muscle tone. The most commonly used ones are Baclofen and Diazepam. Common side effects include sedation, nausea, memory impairment and weakness.
2. Intrathecal Baclofen might be considered in selected patients to improve function and posture.



3. Intramuscular injection of Botulinum toxin might be indicated in patients having excessive tone and pain in certain muscle groups. The effective period is generally 3 to 6 months. Rehabilitation is important during this period to help children to gain better posture and to learn new skills, e.g. to train the upper limbs for a more mature hand grasp or to train the lower limbs for a better walking pattern.

How can we help children who cannot sit or walk independently?

1. In order to prevent deformity of the trunk and joints, maintain the head in midline position and body symmetry is important. It is better to place children in different positions regularly throughout the day.
 - ✧ During sleep, lie with face up, keep body symmetrical and avoid twisting as much as possible.
 - ✧ When sitting, use special seating equipment to ensure the midline alignment of head and body. Support the spine to avoid leaning or twisting so as to prevent the development of scoliosis.
 - ✧ When standing, use a standing frame. Children are recommended to weight bear for at least an hour a day to prevent hip dislocation.
2. Use of various equipment and aids to support different parts of the body, such as special chair, arm and leg gaiters, orthosis and straps. With better support and stabilisation, children can better participate in daily activities.
3. Although children's mobility is limited, they are encouraged to perform exercises actively as much as possible, e.g. head lifting, rolling, stretching out arms and legs, etc.
4. Young children are usually going outdoors in a buggy. As they grow older, an electric wheelchair might be a choice to improve their independence. Discussion with physiotherapist is recommended.



What caretakers need to pay attention to when taking care of their children?

1. Children are recommended to be placed in different positions (e.g. side lying, prone, sitting and standing) throughout the day. Training, playing and performing daily activities can be merged and incorporated in these various positions.
2. Caretakers should learn proper technique in carrying their children to avoid injury. When lifting their children, they should hold their children close to their own body, keep their back straight and use the legs to support the weight.
3. Children are recommended to use well supporting buggies for ambulation when they go out. Please consult physiotherapist when necessary.

How can we help children who can walk but with weak motor control and balance?

1. Children need to learn how to fix the limbs to improve their stability, e.g.:
 - ✧ Hold hands together during walking to reduce involuntary movement which disturb balance.
 - ✧ When doing table tasks, their feet should be lain flat on the ground, other body parts including the non-used hand should be well fixated to enable better use of the preferred hand.
2. It will be more effective and practical to incorporate active exercises into daily life, such as carrying their own bags, walking from place to place, walking stairs under the supervision of caretakers etc.
3. Encourage children to participate more in physical activities in order to improve balance, coordination and strength. With safety precautions taken, jogging, ball games and climbing are good choices of exercise. Children can also join physical activities in the community as far as possible, e.g. dance class, gym or swimming class.



Children with physical impairment need to have therapy training everyday, should caretakers reduce their play time?

Children learn about themselves and the world through play. During play, they experience a sense of joy, pleasure and freedom. Therefore, caretakers should play with children everyday in different time. It is a good opportunity for children to learn, whereas caretakers can enjoy their interaction with children at the same time.

What should caretakers do during playtime for children with great restriction in motor control?

- Position children with their head in midline to enhance the eye contact, which facilitates them to interact with adult.
- Place the toy in children's midline for promoting symmetrical posture.
- Provide suitable furniture for keeping the children's body and limbs in midline and symmetrical posture, so as to minimize abnormal tonic reflexes. Consult doctor or therapist for designing special seating if necessary.
- Establish children's body schema by holding their hands to touch the corresponding body parts while singing.
- Use toys with light and sound effects to attract and motivate children to play. Also encourage them to indicate their preference by eye contact or vocalization.
- Enrich children's sensory experience by helping them to touch materials with different textures, e.g. soft, hard, smooth, and rough.



What should caretakers do for children with involuntary movement in handling toys?

- Provide suitable furniture for keeping children's elbows on the table, so as to promote upper limb stability.
- Place the toy on non-slippery mat, or help them to stabilize it by hands.
- Perform more eye-hand coordination tasks, e.g. stacking or threading beads.

Should caretakers help young children with physical impairment to finish all the self-care tasks?

Self-care skill is one of the most important developmental domains in children. Self-care skills training can enhance their fine motor skills, promote their independence and self-esteem. Caretakers can consult Occupational Therapist to set realistic goals according to children's motor and cognitive abilities. Caretakers should provide safe environment for children to participate in self-care activities.

How to promote children's self-care skills?

- Due to the presence of involuntary movement, children need more time in performing self-care activities. Caretakers should have more patience and praise their effort.
- Let children to perform self-care tasks in their optimal position, e.g. taking off shoes and socks by sitting on the floor with the back leaned against the wall.
- Encourage children to participate in daily living activities, e.g. holding cups, folding towels, cleaning table and tidying up, etc.
- Some children may need to use special utensils, e.g. enlarged handle spoon, angled spoon, scooping plate, non-slippery mat, etc. Consult Occupational Therapist when necessary.



What should caretakers do when taking care of children with great restriction in motor control?

- Caretakers have to be aware of their own posture to avoid injury. Keeping the children's neck and hips in flexed and symmetrical posture will be more easy and safe in lifting or transferring children.
- When sitting on the special chair at mealtime, children should hold the handrail with extended elbows to maintain an upright and stable posture during feeding. Arm gaiters may be used if needed.
- When performing dressing activities, keep the children in symmetrical posture to avoid asymmetrical tonic reflexes.
- Secure the bathing basin in suitable height, so that adult could maintain straight back in standing or sitting position when they help their children to bath. Caretakers should also place a non-slippery mat or bathing net in the basin for safety.



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