

# Cerebral Palsy Children: An Effective Home Care

C. K. V. Bhuvanewari

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## Abstract

Cerebral palsy is a developmental disability that results from dysfunction of the developing brain. For families and professionals involved in the care of children with cerebral palsy, the ultimate goal of intervention is to maximize functioning while minimizing any disability related disadvantage and to enhance participation in these environments, in a manner that is mutually satisfying for the individual and the community. This is accomplished by recognizing the specific abilities and needs of the individual child as they occur within the context of his or her family and community. Habilitation is an intervention strategy that is family focused and community based. Proper positioning geared to the age and orthotic devices, including braces, splints, and basic equipment needs, basic information related to feeding, and strategies for lifting and carrying children are integrated into the habilitation plans of physical and occupational therapist is an effort to maintain adequate range of motion, prevent contractures at specific joints, provide stability and control involuntary movements that interfere with function and addressing the tone and movement abnormalities associated with cerebral palsy. Efforts founded on the principles articulated in the Americans with Disabilities Act will create new opportunities for greater participation and enhanced quality of life for children with cerebral palsy. In this connection the present paper explore Cerebral Palsy Children: An Effective Home Care

**Key words: cerebral palsy children, orthotics, positioning.**

## Introduction

Cerebral palsy is a disorder of movement and posture that is caused by a non-progressive abnormality of the immature brain<sup>1</sup>. Parents and professionals have an important role as educators

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of their child, especially during the early formative years. The ways in which a baby learns during the early months, with particular reference to the part that his mother plays in this early learning process while she tends to his needs throughout the day. This is a time during which a partnership develops between mother and baby. Naturally she is not alone in this task, a father's interaction is different from a mother's and that of siblings and other family members, each in their own way provide opportunities and encouragement for learning<sup>2</sup>.

When handling the child with cerebral palsy, especially in the early years, is the ability to use our hands effectively and economically, so that we become sensitive to the varying changes of tone under our hands. These could include outpatient site and community based initiatives as opposed to inpatient settings or hospital-based programs.

### **Objectives**

- Integration of medical care with home and community-based services that effectively link the person with visiting therapist, transportation, respite care, housekeeping and housing services.
- Integration of child and family perspectives into care process and planning, using child-centered communication and a consumer-oriented focus to service delivery.
- Emphasis on functional status and quality of life, so that the systems are tracked to be accountable for their effectiveness.
- Improved screening and risk assessment to identify children early, when specialized services developmentally have the most effect.
- Individual and group health education targeted to improve self-care skills and appropriate use of health care services.
- Flexible gate keeping that allows children and families access to a variety of services on a limited basis without prior authorization.
- Comprehensive care management that moves beyond benefit management and achieves real care coordination.

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- Coordination with public health, education and social services, including collaborative arrangements, to organize and provide services.
- An understanding of the differences between adult and childhood disability and the need for managed care models to be flexible in meeting pediatric needs.
- Access to a medical home.
- Fair reimbursement that compensates physicians for the increased time and complexity associated with care coordination.
- Viable systems of monitoring the care delivered.

## **Methods**

### **POSITIONING**

Proper positioning geared to the age and functional status of the child is often a key intervention in addressing the tone and movement abnormalities associated with cerebral palsy. A variety of adaptive devices are available to this end.

Static positioning devices, including sidelyers, prone wedges, and standers used to promote skeletal alignment, to compensate for abnormal postures. Careful attention to functional seating has long-term benefits in the prevention of contractures and joint deformities related to spasticity.

Other devices, including scooters, tricycles, and wheelchairs provide the child with the means to move independently within the environment and increase opportunities for exploratory play and social interaction.

### **Early Stages of Hand Function**

A child can achieve independent function for daily living; child needs first to use his hands for grasp, release, support and manipulation. The development of a baby's hand skills is closely linked and dependent on sensory input, postural control [stability] and gross motor of movement.

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The Following Ways introduce early stimulation:

- Hold the baby by his shoulders or upper arms and encourage child to look at his hands as you rub, clap and press them together. Take one hand at a time over the front and back of his forearms. Hold his wrists and shake his hands i.e. wave goodbye.
- Rub his hands over his face, top of child head and tummy. Take both his hands and rub them over your face. Blow kisses, tickle and walk over the palms, back of his hands and up the back and front of his forearms.
- Place a toy between his palms that squeaks as you press his hands together. Place his hands around familiar objects such as child bottle.
- Bent and stretch his arm, hands and fingers as you dry them. The same with his toes.
- Finger and glove puppets are simple to make and stimulate a baby to look, touch and get hold of them.

## **Abnormal Tones**

### **THE CHILD WITH MODERATE SPASTICITY:**

The child is slightly asymmetrical, pelvis is unstable and the weight is taken over to one side. Although child has some head control, does not have sufficient control of her flexor muscles to overcome the pull of gravity and therefore, even with help is limited in the amount of movement, can manage on her own.

The ways handle the young child with increased tone [spasticity]

- The child lies on his father, who supports his son under his armpit so that he is able to take weight on open hand as he reaches forward with the other hand to touch daddy's face.
- The child sits astride his father, his feet flat on the floor. His father guides both his hands towards his face, naming his nose, eyes, mouth, and ears as the child touches them.

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## **CHILD WITH FLUCTUATING TONE AND INVOLUNTARY MOVEMENTS:**

The child is asymmetrical his head and trunk control is poor and unable to stabilize his shoulder and pelvic girdles. Child cannot reach forward with extended arms or maintain a sustained grasp.

The ways handle the child with fluctuating tone and involuntary movements [athetoid type of cerebral palsy].

The child have an appreciation of body awareness, these children need a stable base from which they can use their hands.

- The child grasps hands while pull them towards mother keeping arms straight, then quickly jerk him back a little. This will give him the feeling of grasping while at the same time increase the tone in his trunk [making it firm] and improve his hand control.
- The child is controlled firmly at the shoulder, the arm is turned in and kept straight by his side. He puts his hands on his knees and moves slowly forward to put his hands on his feet, in front of his feet and beside his feet, returning to the sitting position with his hands on his knees.
- By giving firm steady pressure, through the pelvis and hips the child is able to maintain the extension in his trunk. While lifting his arms up to touch his father's ears.

### **Equipment for Play, Co-Ordination and Balance**

#### **ROLLS**

#### **Suggested uses:**

A roll can be used with a child lying on his tummy or straddling it to facilitate postural alignment, trunk rotation and balance reactions. As a roll only moves in one plane, unlike a therapy ball that moves in a frontal and lateral plane. Other ways in which a roll can be used for play activities.

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## **INFLATABLE THERAPY BALLS**

### **Suggested uses:**

Therapy balls are used to increase movement experiences, facilitate weight shift and balance reactions in prone lying, sitting, standing and walking.

## **HAMMOCKS**

Both hammocks and cut-out foam wedges can be used to facilitate the development of visual awareness, mid-line play, and eye-hand coordination, and early reach and grasp.

### **Handling during Routine Activities**

The child with cerebral palsy feels insecure when he is bathed, dressed and undressed. It is therefore important dressing, undressing and changing a baby's diaper, to make sure that he is in a position where he feels secure and is symmetrical i.e. his head, trunk and pelvis are in alignment and his weight evenly distributed.

## **ORTHOTICS: Braces and Splints**

One of the most commonly prescribed orthotics is a short leg brace that prevents permanent shortening of the heel cord.

A variety of splints used to improve hand function. In the resting hand splint, the thumb is held in an abducted position and the wrist in a neutral or slightly extended position. This helps the child keep hand open to prevent a deformity from developing.

The use of cast has become increasingly popular as an adjunct to more traditional methods of managing spasticity. Benefits of inhibitive casting include improved gait and weight bearing, increased range of motion, and improved functional hand use.

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## Managed Care and Children with Special Health Care Needs

Children with special health care needs could potentially experience benefits from managed care, especially as compared with the parameters of the traditional fee for service plans. MCOs provide the following:

- Increase flexibility to design programs that will meet the children's special needs.
- Coverage of well-child care, routine immunization, and other preventive care that are often excluded in traditional plans.
- Protection of families from excessive medical cost and
- Point-of-services plans that provide families with the benefits of managed care while retaining the choice of physicians even if they are not in the standard network of providers.

## Conclusion

Habilitation is an interdisciplinary strategy that seeks to maximize function and minimize the disadvantage a person experiences as a consequence of disability or societal circumstances. Many services needed and the number of providers and professionals involved, coordinating health care services for children with special health care needs presents a challenge to the child's family and to health care provider. Efforts founded on the principles articulated in the American Disability Act create new opportunities for greater participation and enhanced quality of life for people with cerebral palsy.

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C. K. V. Bhuvanewari  
Lecturer in Physiotherapy  
Division of Physical Medicine and Rehabilitation  
Rajah Muthiah Medical College and Hospital  
Annamalai University  
Annamalainagar-608002  
Tamilnadu  
India  
[ckvbhuvana@rediffmail.com](mailto:ckvbhuvana@rediffmail.com)