

## 40. CEREBRAL PALSIES IN CHILDREN

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40.2	<b>Introduction</b>	
40.2.1	Cerebral palsies are disorders of posture, movement and muscle tone resulting from abnormal structural development or non-progressive lesions of the immature brain, which in the majority of cases arise at, around or before birth. Birth injuries used to be a common cause, but now account for only some 10% of cases. Cerebral palsies are not specific diseases but are groups of disorders of varied causes and commonly associated with sensory defects (ie. impairments of vision, or hearing, or touch, etc), learning difficulties/mental retardation, and epilepsies. Cerebral palsies are among the most common disabling conditions of childhood.	
40.2.2	The incidence of cerebral palsy is about 2 per 1000 live births. Premature babies are at increased risk. Cerebral palsies are commoner in males and a high proportion are first-born children. The predominant features of the resulting disabilities are impairments in self-care, independent mobility and social interaction, which includes communication.	
40.3	<b>Clinical Features</b>	
40.3.1	Children with cerebral palsies show stereotyped postures, with limited and/or lack of variety in their movements. The diagnosis cannot be made with confidence in the first few months for most children. There are some children who appear to have cerebral palsy at 8-12 months but later show no physical disability. The commonest presenting features in infancy include excessive mobility, apathy, unexplained seizures, and feeding difficulties	
40.3.2	The disturbances of posture, movement and muscle tone can present as spasticity and rigidity of muscles which can lead to abnormal postures and deformities of limbs. Swallowing may also be affected. In <b>spastic quadriplegia</b> all four limbs are involved. <b>Diplegia</b> means that the muscle problems are much more severe in the lower limbs than in the upper extremities. <b>Spastic hemiplegia</b> accounts for about one third of children with cerebral palsy. Here one side of the body is affected and there is often impaired and defective vision. <b>Monoplegia</b> is a spastic weakness confined to one limb, and is very rare, often resolving with time. Other features may	

include athetosis (involuntary movements) in limb and facial muscles with abnormal posturing of hands. Deafness may also be present. The combination of these spasmodic involuntary movements with absence of speech caused by deafness may give a false impression of severe mental retardation. Ataxia (lack of balance), especially of the trunk, may be a feature.

**40.3.3** Most people with cerebral palsy have language or articulation problems (ie. difficulty in communicating), about 33% have epilepsy in childhood and at least 25% have some impairment of visual function which may be due to refractive errors in the lenses of the eye, or squints, or a defect in the part of the brain which is concerned with seeing. Behavioural problems [Chapter 36] and learning difficulties [Chapter 35] may also be encountered. As affected children grow up, deformities may appear. The most serious are scoliosis (curvature of the spine) and acquired dislocation of the hip. Persistent deformity causes difficulty in nursing and hygiene.

**40.3.4** About 95% of affected children will live to adulthood. The outlook for the child with cerebral palsy depends largely on the severity of any associated intellectual and learning disabilities. Good adjustment may be made to fairly severe muscle problems as long as intellectual capacity is good. The response of the family to the situation and the availability of adequate educational and therapeutic facilities are of great importance.

#### **40.4 Care Needs and Mobility Considerations**

**40.4.1** Because of the physical disabilities and learning disabilities/mental retardation which may be present in varying combinations and degrees (and, possibly, coexisting with other complications and associated disabilities - see para 40.3) an extremely complex picture may present both of the total disablement and the aggregated needs arising from it. Each case will require careful and individual assessment. Reference may also be made to chapters dealing with related conditions [see para - 40.1].

**40.4.2** About 75% of children with cerebral palsy eventually walk. However the manner in which progress is made, and the gait adopted, may, among other factors result in a substantial limitation of walking abilities. Children who have multiple disabilities and/or have severe spasticity affecting all four limbs may never be able to walk.

#### **40.5 Further Evidence**

**40.5.1** Parents of children with cerebral palsies are usually greatly involved in the programmes of effective family support and should thus be able to provide the

great majority of information required in determining care and mobility needs. If required, further evidence may be sought from staff at a Child Development Centre, the GP, a developmental paediatrician, or a paediatric neurologist.