

# Cerebral palsy (CP)

## Defining cerebral palsy (CP)

CP is a group of disorders which affect an individual's movement and/or posture. Cerebral refers to brain and palsy refers to weakness or lack of muscle control. CP occurs from damage to the developing brain during pregnancy, birth or soon after birth. CP is a lifelong physical disability and people who have CP may also experience visual, hearing, speech, intellectual impairments and epilepsy. In Australia CP occurs in approximately 2 per 1000 live births and there are around 34,000 people living with CP in Australia.

## Causes of CP

The causes of CP are vast and not well understood and in most cases the cause is unknown. Multiple factors may contribute, such as preterm birth, intrauterine growth restriction, cytomegalovirus (CMV) infections, rubella, birth defects and multiple pregnancies. Factors following birth include cerebral infections and head trauma. The majority of CP occurs before birth (94%) rather than after delivery.

## Types of CP

There are 4 predominant motor types of CP:

- spastic: spasticity occurs when muscles have increased tone and appear stiff. This is the most common type of CP.
- ataxic: ataxia affects balance and coordination. People with ataxic CP may appear shaky and unsteady.
- dyskinetic: dyskinesia involves involuntary movements, which generally increase when the person is moving.

- mixed: the person can present with any combination of motor types.

CP can also be classified according to the part of the body affected: quadriplegia (affects all 4 limbs), diplegia (affects both legs) and hemiplegia (affects 1 side of the body).

The Gross Motor Function Classification System (GMFCS) is a tool used to classify CP. Functional ability is grouped into 5 stages (I – V), with I (1) being very independent and functional to V (5) requiring extensive assistance and aids. GMFCS classification is commonly used by health professionals as it provides information about a person's ability level and risk of hip problems.

## Prevention of CP

Currently, there is no cure or definite prevention strategies for CP. Strategies which may reduce the risk and potential severity of CP are:

1. Magnesium sulphate: this can be provided to the mother if a birth is predicted to be very premature to help reduce the risk of brain injury which can cause CP.
2. Cooling cap: this may be placed on newborn infants who are born with birth asphyxia (reduced oxygen or blood supply to a baby's brain) to reduce the level of brain injury by decreasing the baby's body temperature.

## Interventions for CP

There is no cure for CP however, there are many interventions that can improve the person's quality of life. Interventions are

chosen on a case-by-case basis to suit the needs of the individual and may include the following:

- medication, e.g. to control seizures or to reduce muscle tone
- physiotherapy
- occupational therapy
- speech therapy
- surgery
- prosthetics and orthotics
- special education/learning strategies
- pain management
- sleep management
- counselling
- dietetics
- audiology and Optometry.

### Hip surveillance

Hip surveillance is important for all children with CP to monitor hip development. Children with CP may have problems with their hips due to abnormal muscle function which impacts bone growth and position which can lead to hip displacement or dislocation.

Hip surveillance identifies and monitors the early signs of progressive hip displacement through regular x-rays and physical examinations. Interventions like physiotherapy, positioning and orthotics can then be provided which may reduce the need for future surgical input.

### CP Register

The NT CP Register stores information about people with CP in the NT and provides de-identified data to the Australian Cerebral Palsy Register. Both registers are voluntary and aim to:

- monitor numbers of people with CP
- gain further understanding about the causes of CP
- investigate preventative strategies
- assist in planning services for children and adults with CP.

To contact the NT CP Register, please call the Centre for Disease Control on 08 89228044 or email CPRegisterTHS@nt.gov.au.

The Australian Cerebral Palsy Register website can be found at [www.cpreregister.com](http://www.cpreregister.com).

### For more information contact the Centre for Disease Control in your region

Alice Springs	8951 7540
Nhulunbuy	8987 0357
Darwin	8922 8044
Tennant Creek	8962 4259
Katherine	8973 9049
Or visit	

<https://health.nt.gov.au/professionals/centre-for-disease-control>