Cerebral Palsy
(The Spasticity Management Service

Royal Berkshire NHS Foundation Trust

This leaflet explains the causes, symptoms and treatment of Cerebral Palsy, and tells you where to get help.

What is Cerebral Palsy?

Cerebral palsy is a physical impairment that affects movement and co-ordination. It ranges in severity from one person to another. Some children might experience movement problems that are barely noticeable, while for others these problems might be very severe.

What causes Cerebral Palsy?

It is sometimes possible to identify a cause, but not always. The most common cause is that the brain is damaged secondary to prematurity. This usually affects the cortex which is the biggest section of the brain and is responsible for voluntary muscle movement, communication, and many thought processes, including the interpretation of the senses of hearing and sight.

Problems can also develop because of a blocked blood vessel, complications in labour, or as a result of an infection which happens before or after birth, causing meningitis or encephalitis. Sometimes the brain fails to develop normally within the womb and very occasionally it's linked with an inherited genetic disorder.

What are the signs and symptoms of Cerebral Palsy?

The condition is often noticed early in life. A baby may seem 'floppy' and could have feeding problems (the muscles in the throat used in swallowing might not be working properly). Soon afterwards tightness of the muscles (spasticity) might emerge or more jerky chaotic movements (dyskinesia). Often a child with Cerebral Palsy will fail to achieve the expected 'milestones' of development and their movement patterns are unusual (such as fisted hands or stiff pointed ankles) as though they are trying to walk on tiptoe. Some will go on to have difficulty walking. Other problems can include speech and feeding difficulties, balance and co-ordination problems, hearing and sight problems and learning difficulties. Between a quarter and a third of children and adolescents with Cerebral Palsy are also affected by epilepsy.

There are three main types of Cerebral Palsy:

- **Spastic Cerebral Palsy** that affects muscle tone. Muscles can become very stiff and weak.
- **Dyskinetic Cerebral Palsy**, where muscle tone can fluctuate.
- **Ataxic Cerebral Palsy**, which is the least common and means movements are often jerky and balance is poor.

Different parts of the body can be affected:

- **Hemiplegia** means just one side of the body.
- **Diplegia** is where the legs are more affected than the arms.
- **Quadriplegia** (also called four limb/total body involvement) is where both arms and legs are affected. Quadriplegia is usually the most severe in terms of other co-existing problems.

The conditions don't progress – in other words brain damage doesn't get worse but a person's physical capacity can change over time.

How is Cerebral Palsy normally diagnosed?

It can be tricky to make a firm diagnosis in the first months. By the time a child is around a year old, a diagnosis can usually be confirmed by clinical assessment and specific tests (particularly MRI brain scans) may be carried out. A paediatrician or neurologist and a physiotherapist would usually be involved in this.

How Cerebral Palsy is normally treated?

There isn't a cure for Cerebral Palsy. It isn't yet possible to repair damage to the brain. However there is a lot that can help a child cope with the condition, and to prevent complications (such as deformities or contractures) from happening. Care is usually co-ordinated through a developmental paediatrician as part of a child development team, where therapists and doctors work together. If there are many professionals involved, a key worker may help with this.

Physiotherapy is usually the first line in treatment. Specific exercises will help keep a child's muscles flexible. Monitoring of hips and spine is often indicated and sometimes an orthopaedic surgeon is needed if complications develop.

Medication can help control spasms in the muscles and help joints to move more freely. If a child has seizures, these can be controlled with the help of anticonvulsant medication.

Botulinum Toxin injections can be useful for some children with Cerebral Palsy. This helps specific muscles relax so they become less stiff, enabling a child to move around more easily and comfortably.

A specialised speech and language therapist will be able to help with any speech problems, and also with difficulties relating to feeding and swallowing. An occupational therapist might also become involved if the child needs special seating or equipment. Problems with hearing or sight can be helped by means of hearing aids or glasses.

What happens next?

The effects of Cerebral Palsy vary enormously from child to child. Even at its most severe, with the right support and treatment, the symptoms can be eased. Most children with Cerebral Palsy go on to lead a full and independent life in the future. Some children won't experience any learning difficulties while others will need specialist help. If as a result of their physical and/or learning difficulties a child does have special educational needs, they may still do well in a

mainstream school with extra support. Specialist schools may also be an option. The earlier the child can get the right help, the more they will benefit in the long run.

Further information

- **SCOPE** factsheets on treatments available on www.scope.org.uk.
- **Hemi Help,** www.hemihelp.org.uk/home
- http://www.cerebralpalsy.org.uk

Please contact us via

Dingley Child Development Centre
Erlegh House, Earley Gate, Whiteknights Road,
University of Reading Campus, Reading RG6 6BZ
Telephone 0118 322 5111 or 7531
Dingley Admin team (CAT 7): 0118 322 7531 (option 1 for Dingley Team; option 2 for Acute Paediatric Team) or email: rbb-tr.cat7@nhs.net

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Dingley Paediatric Unit, November 2022.
Next review due: November 2024