

What is cerebral palsy?

At some point very early in life, either while a baby is still growing in the womb, during birth or shortly after, something happens to interfere with the normal development of the brain or to injure the brain tissues. This abnormal development or injury disrupts the nerve signals between the brain and the muscles, leading to problems with movement, posture and coordination as the child grows up. This is called cerebral palsy.

While some people are severely affected, others have only minor disruption, depending on which parts of the brain are not functioning properly.

"In the developed world we can find six cerebral palsy cases per 1000 births. In Sri Lanka this figure is high and it is around 12 to 15 such cases per 1000 births. According to available statistics in Sri Lanka there are around 40,000 such children in the country. There may be undetected cases,"

Causes of cerebral palsy

Most people think of cerebral palsy as a condition caused by problems during labour and birth. However, it's now generally accepted that complications at this time are an important factor in only a minority of cases, around one in 10.

Other causes include infections during early pregnancy, oxygen starvation to the baby's brain during pregnancy or delivery, premature birth, cerebral haemorrhage (bleeds in the brain) during pregnancy or delivery, and genetic problems.

The most common cause of cerebral palsy is something that damages the brain while the baby is growing in the womb. These antenatal factors can be found in 80 per cent of those affected and include genetic problems, malformations of the brain and maternal infection such as rubella or toxoplasmosis.

Better maternity care has meant fewer babies are born with cerebral palsy due to birth trauma, but this has been offset by the improved survival of premature and low birth weight babies, who may be up to 50 times more at risk of cerebral palsy.

Infections when a baby is young (especially encephalitis or meningitis) can also lead to cerebral palsy.

In many cases doctors can't give the parents a clear reason why the brain has been injured or failed to develop as it should, and there may be multiple or complex causes.

Cerebral palsy symptoms

The signs or symptoms of cerebral palsy may be clear soon after birth or take some months to become apparent.

Cerebral palsy is often classified into different types depending on the type of symptoms, which in turn probably reflect which parts of the brain are not working as they should. These include:

- Spastic cerebral palsy (about 70 per cent of all cases) - some of the muscles in the body are tight, stiff and weak, drawing the limbs in and making control of movement difficult.
- Athetoid (dyskinetic) cerebral palsy (10 per cent of cases) - control of muscles is disrupted by spontaneous and unwanted irregular writhing movements. These may be the result of muscles changing very rapidly from being loose and floppy to very tight and tense. The muscles used for speech may also be affected, interfering with communication. Control of posture is also disrupted.
- Ataxic cerebral palsy - problems include difficulty with balance, shaky movements of hands or feet, and difficulty with speech.
- Mixed cerebral palsy - a combination of two or more of the above.

There may be abnormal tone (stiffness or floppiness) of the limbs and odd postures.

Inco-ordination of the muscles of the mouth may cause feeding problems such as slow feeding, gagging and vomiting. There may be delayed motor milestones, such as crawling and walking, weakness or paralysis of the limbs, an abnormal gait and slowness in developing speech and social skills.

As many as one in three children and adolescents with cerebral palsy also have epilepsy (or seizures).

Other common problems include:

- Difficulty with walking, writing, eating, talking, dressing
- Problems with balance and coordination
- Difficulty controlling and maintaining posture (they may need help to sit upright)
- Visual difficulties
- Hearing problems

A common misconception is that people with cerebral palsy inevitably have learning difficulties. This may have arisen because people with the condition can have problems controlling their facial movements and speech, and it can be difficult to understand them at first. Some people with cerebral palsy do indeed have moderate or even severe learning difficulties, but just as in the rest of the population, there's a huge range of intelligence and many do very well at school.

Cerebral palsy treatments

There's no cure for cerebral palsy. However, there are plenty of treatments and therapies that can reduce the impact of the condition by easing symptoms such as spasticity, improving communication skills and finding other ways to do things.

Physiotherapy, occupational therapy and speech therapy can all play an important part. Children with cerebral palsy do best when they get special help from an early age. Because the brain changes a lot during the first few years of life, it can be difficult to assess the extent of cerebral palsy at first, but most experts suggest babies should be first assessed at about nine to 12 months.

Many children with cerebral palsy benefit from an approach known as conductive education, which helps them to overcome movement problems and gain some control through special education and rehabilitation. Adults can get a lot from it, too.