CPNI
Cyprus Paediatric Neurology Institute
Παιδονευρολογικό Ινστιτούτο Κύπρου

LEAFLET FOR PARENTS AND PATIENTS

Botulinum toxin (Botox) injections for spasticity: a guide for parents

Botulinum toxin (Botox) injections are one of the treatments used to help children with cerebral palsy and other conditions that cause muscle stiffness (spasticity). Used together with physiotherapy, they can make movement easier and more comfortable. They do not cure cerebral palsy, but they can help a child to do more.

Cerebral palsy and spasticity

Cerebral palsy is a group of conditions affecting movement and posture, caused by injury to, or differences in, the developing brain before, during or soon after birth. It is described by how it affects movement:

- Spastic: muscles are stiff and tight; this is the most common type
- Dyskinetic: involuntary movements or postures, including dystonia
- Ataxic: difficulties with balance and coordination
- Many children have a mixture of these

Some children also have difficulties with learning, communication, vision, hearing or epilepsy.

What is botulinum toxin and how does it work?

Botulinum toxin is a purified medicine that relaxes the muscle it is injected into. It has been used safely in children for more than 30 years, in very small, carefully measured doses.

- Muscles tighten when a nerve sends a chemical message (acetylcholine) to the muscle
- In spasticity, the brain cannot control these messages normally, so some muscles stay too tight
- Botulinum toxin blocks the message where the nerve meets the muscle, so the injected muscle relaxes
- The effect is local: only the muscles that are injected are affected

How can it help?

Before treatment we agree clear goals with you and your child, for example:

- Putting the heels down and walking more easily
- Keeping the legs apart, to help with sitting, dressing and hygiene
- Opening the hand and using the arm
- Reducing pain and stiffness, and making stretching, splints and daily care easier
- Slowing muscle shortening, which may delay or avoid the need for surgery

How are the injections given?

- The doctor first examines your child and decides which muscles need injecting: this may be one muscle or a few, in one limb or more
- Your child may be given a mild sedative before the injections
- The medicine is then injected directly into the chosen muscles (intramuscular injection), which are found by carefully feeling them (palpation)
- Your child can usually go home the same day, and most return to school the next day

When does it work, and for how long?

- It starts to work after 2 to 3 days and reaches its full effect after about 2 to 4 weeks
- The effect usually lasts 4 to 6 months, as the nerve gradually reconnects with the muscle
- Injections may then be repeated, usually no more often than every 3 months
- We review your child’s progress against the goals we agreed

Possible side effects

Treatment is usually very well tolerated. Side effects are usually mild and temporary, and happen in the first few weeks:

- Pain or bruising where the injections were given
- Temporary weakness, tiredness or more falls than usual
- Flu-like symptoms for a day or two
- Rarely, temporary changes in bladder or bowel control

When to seek urgent help

Very rarely, the effect spreads beyond the injected muscles. Seek medical help straight away if, after injections, your child:

- Has difficulty swallowing, speaking or breathing
- Develops marked weakness in muscles that were not injected
- Has signs of an allergic reaction, such as a rash or swelling of the face

Therapy after injections

The best results come when the injections are combined with therapy:

- ✓ Physiotherapy and occupational therapy, to stretch, strengthen and practise new movements
- ✓ Orthoses (splints), for example ankle-foot orthoses (AFOs), worn during the day or at night depending on your child's needs, and sometimes a short period of serial casting
- ✓ We work very closely with your child's physiotherapists, orthotists and orthopaedic surgeon, and when needed we refer for a possible orthopaedic procedure
- ✓ Practising real skills, such as walking or using the hand, including constraint-induced movement therapy (CIMT) for children with one-sided cerebral palsy

Other treatments for spasticity

Botulinum toxin is one part of a wider plan. Depending on your child’s needs, other options may include:

- ✓ Medicines by mouth, such as baclofen, which may be used when spasticity is widespread
- ✓ An intrathecal baclofen pump for some children with severe spasticity or dystonia
- ✓ Selective dorsal rhizotomy, an operation for carefully selected children
- ✓ Orthopaedic surgery to lengthen muscles and tendons or correct bones, to improve function, posture and comfort and to relieve or prevent pain

Treatment record

Keep a note of each treatment and what changed, and bring this to your appointment.

Date	Muscles injected	What changed

Contact CPNI

To ask about our Spasticity Service and botulinum toxin injections, call our office on +357 22 476 627 or email cpni2007@gmail.com. We see children through GeSY, and privately if they are not GeSY beneficiaries, in Nicosia and Limassol.

More leaflets and information: www.cpni.com.cy

This leaflet gives general information. It does not replace advice from your child's doctor.

Reviewed by Dr Paola Nicolaides, Consultant Paediatric Neurologist, November 2026.

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