

# Effect of botulinum toxin treatment in children with cerebral palsy.

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Multi-level botulinum toxin-A (BTX-A) treatment of the lower extremities in combination with comprehensive rehabilitation leads to an improvement in mobility of children with cerebral palsy.

<b>Ethische beoordeling</b>	Positief advies
<b>Status</b>	Werving gestopt
<b>Type aandoening</b>	-
<b>Onderzoekstype</b>	Interventie onderzoek

## Samenvatting

### ID

NL-OMON21315

### Bron

NTR

### Verkorte titel

The BOLIEN project

## Onderzoeksproduct en/of interventie

## Uitkomstmaten

### Primaire uitkomstmaten

1. Gross Motor Function Measure (GMFM); <br>
2. Energy cost of walking.

## Toelichting onderzoek

### Achtergrond van het onderzoek

National (dutch) multicenter trial;

## Intervention:

Multilevel treatment with botulinum toxin A (BTX). Possible target muscles for a multi-level treatment are the psoas, medial/lateral hamstrings, hip-adductors, rectus femoris, triceps surae, and tibialis anterior/posterior unilateral or bilateral. Starting one week after the multi-level BTX-injections, the patients will be treated by a physiotherapist according to a standardized treatment protocol for 12 weeks.

## Randomisation:

The patients will be randomized into two groups in a multiple baseline design. Follow-up measurements will be performed at 6, 12, 24 and 48 weeks.

## Uitkomstmaten (prim sec?):

Gross Motor Function Measure (GMFM), energy cost of walking, gait analysis, mobility questionnaire, spasticity, and passive range of motion of lower extremity joints.

## **Doel van het onderzoek**

Multi-level botulinum toxin-A (BTX-A) treatment of the lower extremities in combination with comprehensive rehabilitation leads to an improvement in mobility of children with cerebral palsy.

## **Onderzoeksopzet**

N/A

## **Onderzoeksproduct en/of interventie**

Group A will receive multi-level BTX injections 6 weeks after the first assessment, group B after 30 weeks.

## **Contactpersonen**

## **Publiek**

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## **Deelname eisen**

### **Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)**

1. Diagnosis of cerebral palsy (CP), hemiplegia or diplegia, ability to walk with or without a walking aid, with or without an ankle-foot orthosis;
2. gait characterized by persistent flexion of the hip and knee in mid-stance when walking;
3. age between 4 and 12 years.

### **Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)**

1. BTX treatment in lower extremities 16 weeks before inclusion;
2. Orthopaedic surgery 24 weeks before inclusion;
3. Contra-indication for BTX-A;
4. Contra-indication for general anaesthesia;
5. Severe fixed contractures;

6. Orthopaedic deformities, which have a bad influence walking:
  - 6.1 (Sub)luxation of the hip with a migration index > 50 degrees;
  - 6.2 Hip endorotation contracture > 15 degrees;
  - 6.3 Flexion contracture of knee > 15 degrees;
7. Presence of ataxia of dyskinesia;
8. Other problems which have a negative influence on walking.

## Onderzoeksopzet

### Opzet

Type:	Interventie onderzoek
Onderzoeksmodel:	Parallel
Toewijzing:	Gerandomiseerd
Blinding:	Open / niet geblindeerd
Controle:	Geneesmiddel

### Deelname

Nederland	
Status:	Werving gestopt
(Verwachte) startdatum:	01-02-2001
Aantal proefpersonen:	47
Type:	Werkelijke startdatum

## Ethische beoordeling

Positief advies	
Datum:	26-05-2005
Soort:	Eerste indiening

## Registraties

### Opgevolgd door onderstaande (mogelijk meer actuele) registratie

Geen registraties gevonden.

### Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

### In overige registers

<b>Register</b>	<b>ID</b>
NTR-new	NL21
NTR-old	NTR41
Ander register	: Stichting Bio-Kinderrevalidatie (PGO 01-0134)
ISRCTN	ISRCTN35169306

## Resultaten

### Samenvatting resultaten

Arch Phys Med Rehabil. 2006 Dec;87(12):1551-8.