

Accepted Manuscript

Title: How do children with bilateral spastic cerebral palsy manage walking on inclines?

Authors: Miray-Su Yilmaz Topcuoglu, Britta K. Krautwurst, Matthias Klotz, Thomas Dreher, Sebastian I. Wolf



PII: S0966-6362(18)30390-4
DOI: <https://doi.org/10.1016/j.gaitpost.2018.08.032>
Reference: GAIPOS 6488

To appear in: *Gait & Posture*

Received date: 16-4-2018
Revised date: 27-7-2018
Accepted date: 27-8-2018

Please cite this article as: Yilmaz Topcuoglu M-Su, Krautwurst BK, Klotz M, Dreher T, Wolf SI, How do children with bilateral spastic cerebral palsy manage walking on inclines?, *Gait and Posture* (2018), <https://doi.org/10.1016/j.gaitpost.2018.08.032>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Original Article (Full Paper)

Gait & Posture

How do children with bilateral spastic cerebral palsy manage walking on inclines?

Miray-Su Yilmaz Topcuoglu^a, Britta K. Krautwurst^a, Matthias Klotz^a, Thomas Dreher^a, Sebastian I. Wolf^a

^aClinic for Orthopedics and Trauma Surgery, Heidelberg University Hospital, Schlierbacher Landstrasse 200a, 69118 Heidelberg, Germany

Miray-Su Yilmaz Topcuoglu: miray-su.yilmaztopcuoglu@med.uni-heidelberg.de

Britta K. Krautwurst: britta.krautwurst@med.uni-heidelberg.de

Matthias Klotz: Matthias.Klotz@med.uni-heidelberg.de

Thomas Dreher: thomas.dreher@med.uni-heidelberg.de

Sebastian I. Wolf: sebastian.wolf@med.uni-heidelberg.de

Corresponding author:

Sebastian I. Wolf, Clinic for Orthopedics and Trauma Surgery, Heidelberg University Hospital, Schlierbacher Landstr. 200a, 69118 Heidelberg, Germany
Email: sebastian.wolf@med.uni-heidelberg.de

Highlights

- Steep inclines are a particular challenge for children with cerebral palsy
- Children with cerebral palsy reduce lateral trunk sway when walking 10° downhill
- Downhill they adapt with less knee flexion and plantarflexion compared to peers
- Children with cerebral palsy show more forefoot contacts for up- and downhill gait
- In uphill walking they increase their ankle power much less than their peers

Download English Version:

<https://daneshyari.com/en/article/10129805>

Download Persian Version:

<https://daneshyari.com/article/10129805>

[Daneshyari.com](https://daneshyari.com)