

# MICTURITION REEDUCATION

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AIMS to highlight the incidence of lower urinary tract symptoms and urinary incontinence in children with cerebral palsy (CP) and contribute to possible conservative treatment strategies. METHODS A first part concerning incidence includes a systematic review and a cross-sectional case control study with risk analysis for prognostic factors of incontinence. A second part concerning diagnostics includes a cross-sectional semi-randomized case-control study evaluating the use of uroflowmetry with EMG. A third part concerning therapy includes a prospective controlled trial evaluating incontinence training. RESULTS Concerning incidence main results include (1) lower urinary tract symptoms are present in 55 % of subjects with CP. (2) functional impairment (Odds Ratio (OR) 4.76) , intellectual disability (OR 3.55) and low oral fluid intake (OR 0.96) are the most important prognostic factors for incontinence. For diagnostics, demonstrated results in typically developing children recommend to initiate testing with a single uroflowmetry measurement followed by one measurement of uroflow with EMG testing. Lastly, concerning therapy results suggest urotherapy can be the basis of an effective long-term treatment for urinary incontinence in children with CP. Treatment should be individualized to the child and specific underlying conditions. Important factors include fluid intake, bladder capacity and constipation treatment. CONCLUSIONS Urinary incontinence is frequently present in children with CP and should not be seen as minor or unavoidable. Risk factors and treatment strategies could influence incontinence and as result quality of life of the child and environment.