

# The Effect of Primary Delivery of the Anterior Compared to the Posterior Shoulder on Perineal Trauma

## A Randomised Controlled Trial

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Primary delivery of the anterior shoulder



Primary delivery of the posterior shoulder

### INTRODUCTION

Approximately 85% of vaginal deliveries are accompanied by perineal trauma.

### OBJECTIVES

To compare the incidence and degree of perineal trauma after primary delivery of the anterior compared to the posterior shoulder during vaginal birth. The hypothesis is that primary delivery of the posterior shoulder reduces the rate and degree of perineal trauma.

### METHODS

This is a single centre, randomized controlled trial, with computer-generated randomization at a 1:1 allocation ratio. Women planning their first vaginal delivery (n = 650) are randomized to primary delivery of either the anterior or posterior shoulder. The primary outcome is any

perineal trauma. Additional outcomes are the perineal injury subtypes, post partum bleeding, umbilical artery pH, APGAR score at 5 minutes, and any neonatal birth trauma. Perineal trauma is assessed by a midwife or doctor blinded to the method of shoulder delivery. All midwives are trained in the two methods of shoulder delivery and in the grading of perineal tears. The trial is being undertaken at a Danish community hospital with 1600 yearly deliveries. Data will be analyzed according to the intention-to-treat principle.

### TRIAL STATUS

Recruitment commenced in January 2013 and the first included patient delivered in June 2013. The trial is planned to proceed for 24 months until December 2014.

### DISCUSSION

Most delivery assistance techniques are based on tradition and heritage and lack objective evidence. This trial provides an example of how vaginal delivery techniques can be evaluated in a randomized controlled trial. The results of this trial will clarify the role delivery of the shoulders has on perineal trauma and thereby add knowledge about recommended birthing technique.

### TRIAL REGISTRATION

ClinicalTrials.gov: NCT01937546

### MORE INFORMATION

Including videos of the two delivery techniques.

Please visit:

[www.willersmetode.dk](http://www.willersmetode.dk)

