

# The use of episiotomy in a low-risk population in The Netherlands: a secondary analysis

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## Introduction

Research shows major differences in incidences of episiotomy. It is noteworthy that an episiotomy incidence of 22.8% was found among midwife-led births in a Dutch study, while in Canada the incidence among midwife-led births is 3.1–4.3% for planned home births and 5.9–6.8% for planned hospital births. We established the episiotomy incidence and examined factors associated with episiotomy, reasons for performing an episiotomy and maternal morbidity related to its use.

## Methods

For this secondary analysis we used data from two Dutch multicentre prospective cohort studies among low-risk women:

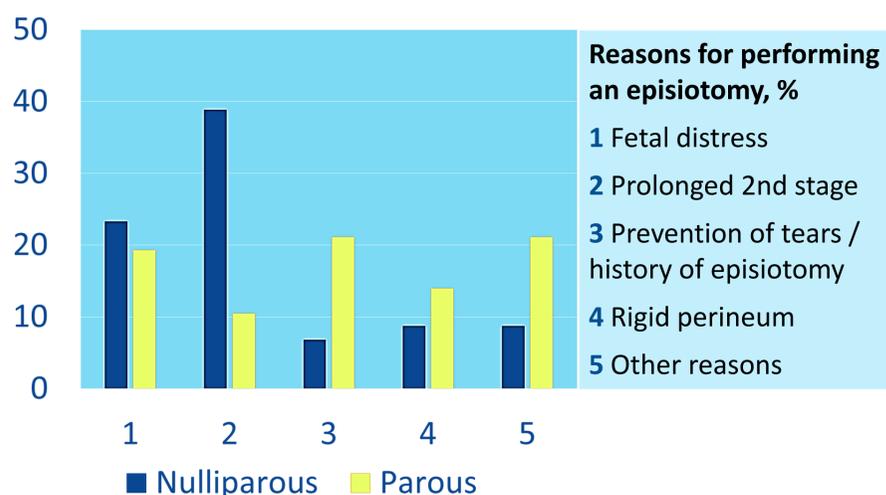
### Positions in labor (2005-2007):

- 54 independent midwifery practices
- Women filled in a questionnaire and a registration form was completed by the midwives
- 1,154 women were included in our analysis

### DELIVER study (2009-2011):

- 20 independent midwifery practices
- Three questionnaires were filled in by the women
- 2,250 women were included in our analysis

Inclusion criteria: women who received midwife-led care during labor and were not referred to secondary care.



## Results

The 3,404 low-risk women that met the inclusion criteria were predominantly Dutch (92.3%), parous women (69.1%) and 18.7% were 35 years or older.

**Table 1:** Incidences of episiotomy, %

	Nulliparous women	Parous women	Total
Positions in labor	25.6	7.6	13.9
DELIVER study	18.0	5.7	9.2
Total	20.9	6.3	10.8

### Factors associated with episiotomy:

- More likely to experience an episiotomy when giving birth in hospital (parous women: adj. OR 1.75 [95% CI 1.2 to 2.5]).
- Longer duration of second stage of labor (nulliparous women).

### Outcomes associated with episiotomy:

- Women with a perineal tear were less likely to experience a blood loss of  $\geq 500$  mls compared to women with an episiotomy (parous women: adj. OR 0.58 [95% CI 0.4 to 0.9]).

- **Table 2:** More perineal discomfort with an episiotomy until three weeks post partum

	Nulliparous women		Parous women	
	Yes, n (%)	Adj. OR [95% CI]	Yes, n (%)	Adj. OR [95% CI]
Episiotomy	66 (84.6)	1.0	41 (68.3)	1.0
Perineal tear	148 (66.1)	0.35 [0.2-0.6]	164 (32.3)	0.22 [0.1-0.3]
No damage	30 (24.0)	0.06 [0.03-0.1]	28 (5.9)	0.03 [0.02-0.05]

## Discussion and Conclusions

We found that although the episiotomy rate among low risk women in the Netherlands is decreasing, it is still high compared to some other Western countries. There is no evidence that a lower episiotomy rate is associated with higher rates of perinatal or maternal morbidity and many observational studies demonstrate that an episiotomy leads to more complaints.

For nulliparous women, prolonged second stage was the main reason to perform an episiotomy, for parous women this was a history of episiotomy or prevention of major perineal trauma. Episiotomy was associated with an increased blood loss among parous women and with more and a longer period of perineal discomfort postpartum. Restricted use of episiotomy is likely to be beneficial for women and indications for performing an episiotomy should be subject of further research and discussion.