# Evidence Update

Maternal Health Series

January 2004

# What are the benefits and risks of restrictive versus routine episiotomy during vaginal birth?

Restrictive episiotomy policies, where health staff avoid the procedure, appear to have a number of benefits compared to policies where episiotomies are performed routinely.

# **Inclusion criteria**

## **Types of studies:**

Randomised controlled trials.

## **Types of participants:**

Pregnant women having a vaginal birth.

#### **Types of intervention:**

Primary comparison: restrictive use of episiotomy versus routine use of episiotomy.

Secondary comparisons: restrictive use of mediolateral episiotomy versus routine use of mediolateral episiotomy; restrictive use of midline episiotomy versus routine use of midline episiotomy; use of midline episiotomy versus mediolateral episiotomy.

#### Types of outcome measures:

Maternal outcomes: number of episiotomies, assisted delivery rate, severe vaginal/perineal trauma, severe perineal trauma, need for suturing, posterior perineal trauma, anterior perineal trauma, blood loss, perineal pain, use of analgesia, dyspareunia, haematoma, healing complications and dehiscence, perineal infection, and urinary incontinence.

Neonatal outcomes: Apgar score less than 7 at one minute and need for admission to Special Care Baby Unit.

# Results

Six studies were included; five were adequately concealed.

- Compared with routine use, restrictive episiotomy policies resulted in less posterior perineal trauma (RR 0.88; 95% CI 0.84 to 0.92), less suturing (RR 0.74; 95% CI 0.71 to 0.77) and fewer healing complications (RR 0.69; 95% CI 0.56 to 0.85).
- Restrictive episiotomy policy was associated with more anterior perineal trauma (RR 1.79; 95% CI 1.55 to 2.07) but there was heterogeneity between studies.
- There was no difference in severe vaginal or perineal trauma (relative risk 1.11, 95% confidence interval 0.83 to 1.50); dyspareunia (RR 1.02; 95% Cl 0.90 to 1.16); urinary incontinence (RR 0.98; 95% Cl 0.79 to 1.20) or several pain measures.
- There were similar effects in trials of both mediolateral and midline episiotomy.



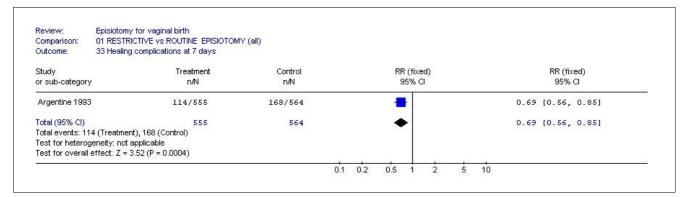


Adapted from Carroli G, Belizan J. Episiotomy for vaginal birth (Cochrane Review). In: The Cochrane Library, Issue 4, 2003. Chichester, UK: John Wiley & Sons Ltd.

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Review: Comparison: Outcome:	Episiotomy for vaginal birth 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all 11 Any posterior perineal trauma	1		
Study or sub-category	Treatment ກ/N	Control n/N	RR (fixed) 95% Cl	RR (fixed) 95% Cl
Harrison 1984	73/92	89/89	-	0.79 [0.71, 0.88]
Sleep 1984	329/498	380/502	-	0.87 [0.81, 0.95]
Klein 1992	282/349	305/349	1 C C C C C C C C C C C C C C C C C C C	0.92 [0.87, 0.99]
Eltorkey 1994	60/100	75/100		0.80 [0.66, 0.97]
	1039 4 (Treatment), 849 (Control) eneity: Chi² = 6.95, df = 3 (P = 0.07), l² = 56.9%	1040	•	0.88 [0.84, 0.92]
	effect: Z = 5.47 (P < 0.00001)			

Comparison: 01 RE	Episiotomy for vaginal birth 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) 17 Need for suturing perineal trauma					
Study or sub-category	Treatment n/N	Control n/N	RR (fixed) 95% Cl	RR (fixed) 95% Cl		
Harrison 1984	50/92	89/89	-	0.54 [0.45, 0.66]		
Sleep 1984	344/498	392/502		0.88 [0.82, 0.95]		
House 1986	54/94	63/71		0.65 [0.53, 0.79]		
Argentine 1993	817/1296	1138/1291		0.72 [0.68, 0.75]		
Ettorkey 1994	62/100	86/100	-	0.72 [0.61, 0.86]		
Total (95% Cl) 2080 Total events: 1327 (Treatment), 1768 (Control)		2053		0.74 [0.71, 0.77]		
Test for heterogeneity:	Chi <sup>2</sup> = 36.29, df = 4 (P < 0.00001), l Z = 15.94 (P < 0.00001)	<sup>2</sup> = 89.0%				



# **Reviewer's conclusions**

#### **Implications for practice:**

There is clear evidence to recommend policies that restrict the use of episiotomy. These results are evident in the overall comparison and remain after stratification according to the type of episiotomy. Until further evidence is available, the choice of technique should be that with which the midwife or doctor is most familiar.

#### Implications for research:

Further trials are needed to determine the indications for the restrictive use of episiotomy at an assisted delivery (forceps or vacuum), preterm delivery, breech delivery, predicted macrosomia and presumed imminent tears. There is a need to evaluate which episiotomy technique (mediolateral or midline) provides the best outcome.

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