## Episiotomy for vaginal birth (Review)

Carroli G, Belizan J



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## Carroli G, Belizan J

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### ABSTRACT

#### Background

Episiotomy is done to prevent severe perineal tears, but its routine use has been questioned. The relative effects of midline compared with midlateral episiotomy are unclear.

### Objectives

The objective of this review was to assess the effects of restrictive use of episiotomy compared with routine episiotomy during vaginal birth.

### Search strategy

We searched the Cochrane Pregnancy and Childbirth Group trials register.

#### Selection criteria

Randomised trials comparing restrictive use of episiotomy with routine use of episiotomy; restrictive use of mediolateral episiotomy; restrictive use of midline episiotomy versus routine midline episiotomy; and use of midline episiotomy versus mediolateral episiotomy.

### Data collection and analysis

Trial quality was assessed and data were extracted independently by two reviewers.

#### Main results

Six studies were included. In the routine episiotomy group, 72.7% (1752/2409) of women had episiotomies, while the rate in the restrictive episiotomy group was 27.6% (673/2441). Compared with routine use, restrictive episiotomy involved less posterior perineal trauma (relative risk 0.88, 95% confidence interval 0.84 to 0.92), less suturing (relative risk 0.74, 95% confidence interval 0.71 to 0.77) and fewer healing complications (relative risk 0.69, 95% confidence interval 0.56 to 0.85). Restrictive episiotomy was associated with more anterior perineal trauma (relative risk 1.79, 95% 1.55 to 2.07). There was no difference in severe vaginal or perineal trauma (relative risk 1.11, 95% confidence interval 0.83 to 1.50); dyspareunia (relative risk 1.02, 95% confidence interval 0.90 to 1.16); urinary incontinence (relative risk 0.98, 95% confidence interval 0.79 to 1.20) or several pain measures. Results for restrictive versus routine mediolateral versus midline episiotomy were similar to the overall comparison.

#### Authors' conclusions

Restrictive episiotomy policies appear to have a number of benefits compared to routine episiotomy policies. There is less posterior perineal trauma, less suturing and fewer complications, no difference for most pain measures and severe vaginal or perineal trauma, but there was an increased risk of anterior perineal trauma with restrictive episiotomy.

### BACKGROUND

Episiotomy is the surgical enlargement of the vaginal orifice by an incision of the perineum during the last part of the second stage of labour or delivery. This procedure is done with scissors or scalpel and requires repair by suturing (Thacker 1983).

A report as far back as 1741 suggested the first surgical opening of the perineum to prevent severe perineal tears (Ould 1741). Worldwide, rates of episiotomy increased substantially during the first half of this century while at the same time there was an increasing move for women to give birth in hospital and for physicians to become involved in the normal uncomplicated birth process. Although episiotomy has become one of the most commonly performed surgical procedures in the world, it was introduced without strong scientific evidence of its effectiveness (Lede 1996). Reported rates of episiotomies around the world are 62.5% in USA (Thacker 1983), 30% in Europe (Mascarenhas 1992; Buekens 1985) and with higher estimates in Latin America. In Argentina episiotomy is a routine intervention in nearly all nulliparous and primiparous births (Lede 1991).

The suggested maternal beneficial effects of episiotomy are the following: (a) reduction in the likelihood of third degree tears (Ould 1741; Thacker 1983; Cunningham 1993), (b) preservation of the muscle relaxation of the pelvic floor and perineum leading to improved sexual function and a reduced risk of faecal and or urinary incontinence (Aldridge 1935; Gainey 1955), (c) being a straight, clean incision, an episiotomy is easier to repair and heals better than a laceration. For the neonate, it is suggested that the prolonged second stage of labour could cause fetal asphyxia, cranial trauma, cerebral haemorrhage and mental retardation. During delivery it is also suggested that episiotomy may reduce the possibility of fetal shoulder dystocia.

On the other hand, hypothesized adverse effects of routine use of episiotomy include: (a) extension of episiotomy either by cutting the anal sphincther or rectum or by unavoidable extension of the incision, (b) unsatisfactory anatomic results such as skintags, assymmetry or excessive narrowing of the introitus, vaginal prolapse, recto-vaginal fistula and fistula in ano (Homsi 1994), (c) increased blood loss and haematoma, (d) pain and oedema in the episiotomy region, (e) infection and dehiscence (Homsi 1994), (f) sexual dysfunction.

Other important issues to bear in mind are costs and the additional resources that may be required to sustain a policy of routine use of episiotomy.

The question of whether midline episiotomy results in a better outcome than mediolateral episiotomy has not been satisfactorily answered. The suggested advantages of performing a midline episiotomy instead of midlateral episiotomy are: better future sexual function and better healing with improved appearance of the scar. Those not favouring the use of the midline method suggest it is associated with higher rates of extension of the episiotomy and consequently an increased risk of severe perineal trauma (Shiono 1990).

Our aim is to evaluate the available evidence about the possible benefits, risks and costs of the restrictive use of episiotomy versus routine episiotomy. Also, we evaluate the benefits and risks of performing a midline episiotomy in comparison with a mediolateral episiotomy. The implications for clinical practice and the need for further research in this area will be considered.

### OBJECTIVES

To determine the possible benefits and risks of the use of restrictive episiotomy versus routine episiotomy during delivery. Also we will determine the beneficial and detrimental effects of the use of midline episiotomy in comparison with mediolateral episiotomy.

Comparisons will be made in the following categories:

(1) Restrictive episiotomy versus routine episiotomy (all)

(2) Restrictive episiotomy versus routine episiotomy (mediolateral)

- (3) Restrictive episiotomy versus routine episiotomy (midline)
- (4) Midline episiotomy versus mediolateral episiotomy.

### Hypotheses:

(1) Restrictive use of episiotomy compared with routine use of episiotomy during delivery will not influence any of the outcomes cited under 'Types of outcome measures'.

(2) Midline episiotomy compared with routine episiotomy during delivery will be similar in any of the outcomes cited under 'Types of outcome measures'.

### CRITERIA FOR CONSIDERING STUDIES FOR THIS REVIEW

#### Types of studies

Any adequate randomized controlled trial that compares one or more of the following:

(1) Restrictive use of mediolateral episiotomy versus routine use of mediolateral episiotomy.

(2) Restrictive use of midline episiotomy versus routine use of midline episiotomy.

(3) Use of midline episiotomy versus mediolateral episiotomy.

### Types of participants

Pregnant women having a vaginal birth.

### Types of intervention

Primary comparison

Episiotomy for vaginal birth (Review)

The main comparison is restrictive use of episiotomy versus routine use of episiotomy.

Secondary comparisons

These include:

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 and neonatal outcomes are evaluated.

The maternal outcomes assessed in the comparison are sub-analysed by parity (primiparae and multiparae) and include: 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.

The neonatal outcome measures are: Apgar score less than 7 at one minute and need for admission to Special Care Baby Unit.

### SEARCH METHODS FOR IDENTIFICATION OF STUDIES

See: methods used in reviews.

This review has drawn on the search strategy developed for the Pregnancy and Childbirth Group as a whole. See Review Group's details for more information.

Relevant trials have been identified in the Group's Specialised Register of Controlled Trials. The term used to perform the search was 'episiotomy'. With this strategy we found 214 hits corresponding to different types of articles related to the issue of episiotomy. Most of the studies are related to comparisons of analgesics for postepisiotomy pain, evaluation of different techniques for perineal repair, comparison of operative deliveries and evaluation of predelivery perineal management.

There were only nine trials that met the stated objectives for this review but three of them were excluded because they were of poor methodological quality. In summary, there are six randomised controlled trials contributing to this review.

### METHODS OF THE REVIEW

Trials under consideration were evaluated for methodological quality and appropriateness for inclusion, without consideration of their results. Included trial data were processed as described in Mulrow & Oxman 1997. In this systmatic review, methodological quality is assessed in the three dimensions described by Chalmers et al 1989: namely the control for selection bias at entry (the quality of random allocation assessing the generation and concealment methods applied), the control of selection bias after entry (the extent to which the primary analysis included every person entered into the randomized cohorts) and the control of bias in assessing outcomes (the extent to which those assessing the outcomes were kept unaware of the group assignment of the individuals examined).

### DESCRIPTION OF STUDIES

See table of 'Characteristics of Included Studies'.

### METHODOLOGICAL QUALITY

The method of treatment allocation in general is sound except for the Harrison 1984 trial where the method of treatment allocation is not clearly established raising concerns about possible selection bias.

Sleep 1984, House 1986, Klein 1992, Argentine 1993 and Eltorkey 1994 report random allocation and the concealment of the assignment by sealed opaque envelopes reducing the risk of selection bias at entry to the trial.

Selection bias after entry is avoided in Sleep 1984, Harrison 1984, House 1986 and Eltorkey 1994 where all the women randomized are included in the analyses. Sleep 1984 includes long term followup, with a loss to follow-up of about 33% of the participants. Klein 1992 shows a loss to follow-up rate of 0.71% for primary outcomes to 5% for secondary outcomes. In the Argentine 1993 trial the total number of women randomized was included in the analysis of the primary outcome with a 5% loss to follow-up at delivery, 11% at postnatal discharge and 57% at seven months pospartum. Intention to treat analysis was performed in all of the studies.

In the Sleep 1984 trial, the observer measuring the outcomes was blinded to the treatment group assignments. In the Argentine 1993 trial only the assessment of the healing and morbidity outcomes were blinded to the observer. None of the other studies (Harrison 1984, House 1986, Klein 1992, Eltorkey 1994) reported any effort to blind the observer to the treatment group allocation.

### RESULTS

The restrictive use of episiotomy shows a lower risk of clinically relevant morbidities including posterior perineal trauma (relative risk (RR) 0.88, 95% confidence interval (CI) 0.84 to 0.92), need for suturing perineal trauma (RR 0.74, 95% CI 0.71 to 0.77), and healing complications at seven days (RR 0.69, 95% CI 0.56 to

0.85). No difference is shown in the incidence of major outcomes such as severe vaginal or perineal trauma nor in pain, dyspareunia or urinary incontinence. The only disadvantage shown in the restrictive use of episiotomy is an increased risk of anterior perineal trauma (RR 1.79, 95% CI 1.55 to 2.07). The secondary comparisons, for both restrictive versus routine mediolateral episiotomy and restrictive versus midline episiotomy, show similar results to the overall comparison.

See the tables and graphics included in this review.

No trial was included comparing mediolateral versus midline episiotomy, because of poor methodological quality.

### DISCUSSION

The primary question is whether or not to use an episiotomy routinely. The answer is clear. There is evidence to support the restrictive use of episiotomy compared with routine use of episiotomy. This applies for the overall comparison and the comparisons of subgroups, that take parity into account.

In the light of the available evidence restrictive use of episiotomy is recommended.

What type of episiotomy is more beneficial, midline or mediolateral? To date there are only two published trials available, both of which were excluded from this review. As described in the 'Characteristics of Excluded Studies' table, these trials are of poor methodological quality, making their results uninterpretable. The evidence to support what kind of episiotomy technique to recommend, therefore, remains unanswered.

Based on this systematic review Belizan et al (personal communication) calculated money saved with a policy of selective episiotomy in comparison with a policy of routine episiotomy in two Latin American countries. Being conservative they calculated a saving between US\$ 6.50 and 12.50 every vaginal birth without episiotomy in the public sector. This figure only includes costs of suture materials. In a country as Venezuela with 574,000 births per year, from which 97 per cent are in the public sector the saving would be between US\$ 3,5 and 7 million. The same estimation made for Brazil gives a saving ranging from US\$ 15 to 30 million.

### AUTHORS' CONCLUSIONS

### Implications for practice

There is clear evidence to recommend a restrictive use of episiotomy. These results are evident in the overall comparison and remain after stratification according to the type of episiotomy: restrictive mediolateral versus routine mediolateral or restrictive midline versus routine midline. Until further evidence is available, the choice of technique should be that with which the accocheur is most familiar.

### Implications for research

Several questions remain unanswered and further trials are needed to address them. What are 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 pressing need to evaluate which episiotomy technique (mediolateral or midline) provides the best outcome.

### FEEDBACK

#### Preston, September 2001

Summary

#### **Results:**

The relative risks reported in the results section have been calculated using a fixed effects analysis. There is significant heterogeneity in the outcomes for suturing and perineal trauma. Use of the fixed effects approach ignores this variability between studies, producing artificially narrow confidence intervals. For example, the relative risk for 'need for suturing perineal trauma' changes from 0.74(0.71,0.77) to 0.71(0.61,0.81) with a random effects model, and that for 'any anterior trauma' changes from 1.79(1.55,2.07) to 1.48(0.99,2.21).

Author's reply

A response from the reviewer will be published as soon as it is available.

Contributors

Summary of comment from Carol Preston, September 2001

## POTENTIAL CONFLICT OF

Guillermo Carroli and Jose Belizan are the authors of one of the studies included in this review.

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  SWITZERLAND
- Centro Rosarino de Estudios Perinatales, Rosario AR-GENTINA
- Secretaria de Salud Publica, Municipalidad de Rosario AR-GENTINA

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### TABLES

Study	Argentine 1993
Methods	Generation of randomization by computer from a random sample generator programme, organised in bal- anced blocks of 100, with stratification by centre and by parity (nulliparous and primiparous).
	Allocation concealment by sequentially numbered, sealed, opaque envelopes, divided according to parity.
Participants	2606 women. Uncomplicated labour. 37 to 42 weeks' gestation. Nulliparous or primiparous. Single fetus. Cephalic presentation. No previous caesarean section or severe perineal tears.
Interventions	Selective: Try to avoid an episiotomy if possible and only do it for fetal indications or if severe perineal trauma was judged to be imminent. Routine: Do an episiotomy according to the hospital's policy prior to the trial.
Outcomes	Severe perineal trauma. Middle/upper vaginal tears. Anterior trauma. Any posterior surgical repair. Perineal pain at discharge. Haematoma at discharge. Healing complications, infection and dehiscence at 7 days. Apgar score less than 7 at 1 minute.
Notes	MEDIOLATERAL EPISIOTOMIES
Allocation concealment	A – Adequate

## Characteristics of included studies

Episiotomy for vaginal birth (Review)

Study	Eltorkey 1994
Methods	Random generation: not stated. Allocation concealment: sealed opaque envelopes.
Participants	200 primigravid women with live, singleton fetus, cephalic presentation of at least 37 weeks of gestational age, having a spontaneous vaginal delivery. Not suffering from any important medical or psychiatric disorder.
Interventions	Elective group: the intention was to perform an episiotomy unless it was considered absolutely unnecessary.
	Selective group: the intention was not to perform an episiotomy unless it was absolutely necessary for maternal or fetal reasons.
Outcomes	First, second, third and fourth degree tears, anterior trauma, need for suturing, and neonatal outcomes: Apgar score at first and seventh minute and stay in neonatal intensive care unit.
Notes	MEDIOLATERAL EPISIOTOMY
Allocation concealment	A – Adequate

## Characteristics of included studies (Continued)

Study	Harrison 1984
Methods	Generation method of randomization not established. Concealment allocation method not established. 'Allocated randomly'.
Participants	181 women primigravid, vaginal delivery, at least 16 years old, no less than 38 weeks' gestational age, not suffering from any important medical or psychiatric conditions or eclampsia.
Interventions	One group were not to undergo episiotomy unless it was considered to be medically essential by the person in charge, that is the accoucheur could see that a woman was going to sustain a greater damage or if the intact perineum was thought to be hindering the achievement of a safe normal or operative delivery.
	Another group were to undergo mediolateral episiotomy.
Outcomes	Severe maternal trauma. Any posterior perineal trauma. Need for suturing perineal trauma.
Notes	MEDIOLATERAL EPISIOTOMIES
Allocation concealment	B – Unclear

Study	House 1986
Methods	Generation method of randomization not established. Concealment method of allocation by envelopes.
Participants	Number of participants not established. There is only information for 165 women available to follow-up but it lacks information in those women lost to follow-up either because one of the authors was not available, or because of the early discharge scheme. Women were at least 37 weeks' gestational age, cephalic presentation and vaginal delivery.
Interventions	One group, episiotomy was not performed specifically to prevent laceration. Another group were to receive standard current management whereby perineal damage was avoided by control of the descent of the head and supporting the perineum at crowning. An episiotomy was made if there was fetal distress or for maternal reasons to shorten the second stage such as severe exhaustion, inability to complete expulsion or unwillingness to continue pushing. Episiotomy was performed if the perineum appeared to be too tight or rigid to permit delivery without laceration, or if a laceration appeared inminent.
Outcomes	Second degree tear. Third degree tear. Need for perineal suturing. Any perineal pain at 3 days. Healing at 3 days. Tenderness at 3 days. Perineal infection at 3 days. Blood loss during delivery.
Notes	MEDIOLATERAL EPISIOTOMIES
Allocation concealment	A – Adequate

Study	Klein 1992
Methods	Generation method of randomization not established. Concealment of allocation by opaque, sequentially numbered envelopes.
Participants	1050 women enrolled at 30 to 34 weeks' gestation, from which 703 were randomized. Parity 0, 1 or 2. Between the ages of 18 and 40 years. Single fetus. English or French spoken. Medical or obstetrical low risk determined by the physician. Randomization took place if the women were at least 37 weeks' gestation, medical conditions developing late in pregnancy, fetal distress, caesarean deliveries and planned forceps.
Interventions	"Try to avoid an episiotomy": the restricted episiotomy instruction.
	"Try to avoid a tear": the liberal episiotomy instruction.
Outcomes	Perineal trauma including 1st, 2nd, 3rd, 4th degree and sulcus tears. Perineal pain at 1, 2, 10 days. Dys- pareunia. Urinary incontinence and perineal bulging. Time on resumption and pain of sexual activity. Pelvic floor function. Admission to special care baby unit.
Notes	MIDLINE EPISIOTOMIES
Allocation concealment	A – Adequate

Study	Sleep 1984
Methods	Generation method of randomization not established. Concealment of allocation by opaque sealed envelopes.
Participants	1000 women randomized with spontaneous vaginal deliveries, live singleton fetus, at least 37 completed weeks of gestational age, cephalic presentation.
	From the 1000 original women randomized in the original trial, 922 were available for follow-up and 674 of them responded to a postal questionnaire which are the women included in the analysis.
Interventions	"Try to avoid episiotomy": the intention should be to avoid an episiotomy and performing it only for fetal indications (fetal bradycardia, tachycardia, or meconium stained liquor).
	"Try to prevent a tear": the intention being that episiotomy should be used more liberally to prevent tears.
Outcomes	Severe maternal trauma: extension through the anal sphincter or to the rectal mucosa or to the upper third of the vagina. Apgar score less than 7 at one minute. Severe or moderate perineal pain 10 days after delivery. Admission to special care baby unit in first 10 days of life. Perineal discomfort three months after delivery. No resumption of sexual intercourse three months after delivery.
	Any dyspareunia in 3 years. Any incontinence of urine at 3 years. Urinary incontinence severe to wear a pad at 3 years.
Notes	MEDIOLATERAL EPISIOTOMIES
Allocation concealment	A – Adequate

## Characteristics of excluded studies

Study	Reason for exclusion
Coats 1980	The allocation was quasi random and prone to cause selection bias. As it is described in the article "Women who were admitted to the delivery suite were randomly allocated into two groups by the last digit of their hospital numbers". In addition, when the staff performed an incision which was inappropriate to the treatment allocation, the woman was removed from the trial. This withdrawal of women as opposed to the principle of 'intention to treat analysis' increases the risk of selection bias.
Henriksen 1992	The allocation was quasi random. As is explained in the article the "deliveries were assisted by midwives on duty when they arrive on the labour ward". This method of allocation is very prone to selection bias.

## Characteristics of excluded studies (Continued)

Werner 1991 There is no reference about the method of randomization used. The effects are not shown in a quantitative format making the data uninterpretable.

### ANALYSES

## Comparison 01. RESTRICTIVE vs ROUTINE EPISIOTOMY (all)

Outcome title	No. of	No. of	Statistical method	Effect size
	studies	participants		
01 Number of episiotomies	6	4850	Relative Risk (Fixed) 95% CI	0.58[0.55, 0.41]
(primiparae)	6	2810	Relative Risk (Fixed) 95% CI	0.43 [0.40, 0.47]
03 Number of episiotomies (multiparae)	4	2040	Relative Risk (Fixed) 95% CI	0.27 [0.23, 0.31]
04 Assisted delivery rate	4	3656	Relative Risk (Fixed) 95% CI	0.79 [0.56, 1.11]
05 Severe vaginal/perineal trauma	3	4284	Relative Risk (Fixed) 95% CI	1.11 [0.83, 1.50]
06 Severe vaginal/perineal trauma (primiparae)	3	2331	Relative Risk (Fixed) 95% CI	1.15 [0.84, 1.58]
07 Severe vaginal/perineal trauma (multiparae)	3	1973	Relative Risk (Fixed) 95% CI	1.14 [0.52, 2.48]
08 Severe perineal trauma	5	3850	Relative Risk (Fixed) 95% CI	0.80 [0.55, 1.16]
09 Severe perineal trauma (primiparae)	5	2390	Relative Risk (Fixed) 95% CI	0.84 [0.56, 1.25]
10 Severe perineal trauma (multiparae)	3	1460	Relative Risk (Fixed) 95% CI	0.71 [0.28, 1.82]
11 Any posterior perineal trauma	4	2079	Relative Risk (Fixed) 95% CI	0.88 [0.84, 0.92]
12 Any posterior perineal trauma (primiparae)	4	1157	Relative Risk (Fixed) 95% CI	0.86 [0.82, 0.91]
13 Any posterior perineal trauma (multiparae)	2	922	Relative Risk (Fixed) 95% CI	0.91 [0.83, 0.99]
14 Any anterior trauma	4	4342	Relative Risk (Fixed) 95% CI	1.79 [1.55, 2.07]
15 Any anterior trauma (primiparae)	3	976	Relative Risk (Fixed) 95% CI	1.24 [0.96, 1.60]
16 Any anterior trauma (multiparae)	2	922	Relative Risk (Fixed) 95% CI	1.61 [1.19, 2.18]
17 Need for suturing perineal trauma	5	4133	Relative Risk (Fixed) 95% CI	0.74 [0.71, 0.77]
18 Need for suturing perineal trauma (primiparae)	5	2441	Relative Risk (Fixed) 95% CI	0.73 [0.70, 0.76]
19 Need for suturing perineal trauma (multiparae)	3	1692	Relative Risk (Fixed) 95% CI	0.78 [0.72, 0.83]
20 Estimated blood loss at delivery	1	165	Weighted Mean Difference (Fixed) 95% CI	-58.00 [-107.57, -8.43]
21 Moderate/severe perineal pain at 3 days	1	165	Relative Risk (Fixed) 95% CI	0.71 [0.48, 1.05]
22 Any perineal pain at discharge	1	2422	Relative Risk (Fixed) 95% CI	0.72 [0.65, 0.81]
23 Any perineal pain at 10 days	1	885	Relative Risk (Fixed) 95% CI	1.00 [0.78, 1.27]
24 Moderate/severe perineal pain at 10 days	1	885	Relative Risk (Fixed) 95% CI	1.04 [0.67, 1.62]
25 Use of oral analgesia at 10 days	1	885	Relative Risk (Fixed) 95% CI	1.47 [0.63, 3.40]
26 Any perineal pain at 3 months	1	895	Relative Risk (Fixed) 95% CI	0.98 [0.62, 1.55]

Episiotomy for vaginal birth (Review)

27 Moderate/severe perineal pain at 3 months	1	895	Relative Risk (Fixed) 95% CI	1.51 [0.65, 3.49]
28 No attempt at intercourse in 3 months	1	895	Relative Risk (Fixed) 95% CI	0.92 [0.61, 1.39]
29 Any dyspareunia within 3 months	1	895	Relative Risk (Fixed) 95% CI	1.02 [0.90, 1.16]
30 Dyspareunia at 3 months	1	895	Relative Risk (Fixed) 95% CI	1.22 [0.94, 1.59]
31 Ever suffering dyspareunia in 3 years	1	674	Relative Risk (Fixed) 95% CI	1.21 [0.84, 1.75]
32 Perineal haematoma at discharge	1	2296	Relative Risk (Fixed) 95% CI	0.96 [0.65, 1.42]
33 Healing complications at 7 days	1	1119	Relative Risk (Fixed) 95% CI	0.69 [0.56, 0.85]
34 Perineal wound dehiscence at 7 days	1	1118	Relative Risk (Fixed) 95% CI	0.48 [0.30, 0.75]
35 Perineal infection	2	1298	Relative Risk (Fixed) 95% CI	1.02 [0.48, 2.16]
36 Perineal bulging at 3 months	1	667	Relative Risk (Fixed) 95% CI	0.84 [0.50, 1.40]
37 Urinary incontinence at 3 months	2	1569	Relative Risk (Fixed) 95% CI	0.98 [0.79, 1.20]
38 Any urinary incontinence at 3 years	1	674	Relative Risk (Fixed) 95% CI	0.95 [0.77, 1.16]
39 Pad wearing for urinary incontinence	1	674	Relative Risk (Fixed) 95% CI	1.16 [0.71, 1.89]
40 Apgar score less than 7 at 1 minute	3	3799	Relative Risk (Fixed) 95% CI	1.09 [0.78, 1.51]
41 Admission to special care baby unit	3	1898	Relative Risk (Fixed) 95% CI	0.74 [0.46, 1.19]

## Comparison 02. RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of episiotomies	5	4152	Relative Risk (Fixed) 95% CI	0.34 [0.31, 0.36]
02 Number of episiotomies (primiparae)	5	2454	Relative Risk (Fixed) 95% CI	0.40 [0.37, 0.43]
03 Number of episiotomies (multiparae)	3	1698	Relative Risk (Fixed) 95% CI	0.20 [0.17, 0.24]
04 Assisted delivery rate	3	2964	Relative Risk (Fixed) 95% CI	0.75 [0.50, 1.15]
05 Severe vaginal/perineal trauma	2	3586	Relative Risk (Fixed) 95% CI	1.16 [0.80, 1.69]
06 Severe vaginal/perineal trauma (primiparae)	2	1975	Relative Risk (Fixed) 95% CI	1.18 [0.78, 1.78]
07 Severe vaginal/perineal trauma (multiparae)	2	1631	Relative Risk (Fixed) 95% CI	1.21 [0.49, 2.96]
08 Severe perineal trauma	4	3152	Relative Risk (Fixed) 95% CI	0.55 [0.30, 1.01]
09 Severe perineal trauma (primiparae)	4	2034	Relative Risk (Fixed) 95% CI	0.54 [0.27, 1.09]
10 Severe perineal trauma (multiparae)	2	1118	Relative Risk (Fixed) 95% CI	0.61 [0.19, 1.97]
11 Any posterior perineal trauma	3	1381	Relative Risk (Fixed) 95% CI	0.85 [0.80, 0.91]
12 Any posterior perineal trauma (primiparae)	3	801	Relative Risk (Fixed) 95% CI	0.80 [0.75, 0.87]
13 Any posterior perineal trauma (multiparae)	1	580	Relative Risk (Fixed) 95% CI	0.94 [0.83, 1.05]

14 Any anterior trauma	3	3644	Relative Risk (Fixed) 95% CI	1.86 [1.59, 2.17]
15 Any anterior trauma (primiparae)	2	620	Relative Risk (Fixed) 95% CI	1.25 [0.94, 1.65]
16 Any anterior trauma (multiparae)	1	580	Relative Risk (Fixed) 95% CI	1.63 [1.13, 2.35]
17 Need for suturing perineal trauma	5	4133	Relative Risk (Fixed) 95% CI	0.74 [0.71, 0.77]
18 Need for suturing perineal trauma (primiparae)	5	2441	Relative Risk (Fixed) 95% CI	0.73 [0.70, 0.76]
19 Need for suturing perineal trauma (multiparae)	3	1692	Relative Risk (Fixed) 95% CI	0.78 [0.72, 0.83]
20 Estimated blood loss at delivery	1	165	Weighted Mean Difference (Fixed) 95% CI	-58.00 [-107.57, -8.43]
21 Moderate/severe perineal pain at 3 days	1	165	Relative Risk (Fixed) 95% CI	0.71 [0.48, 1.05]
22 Any perineal pain at discharge	1	2422	Relative Risk (Fixed) 95% CI	0.72 [0.65, 0.81]
23 Any perineal pain at 10 days	1	885	Relative Risk (Fixed) 95% CI	1.00 [0.78, 1.27]
24 Moderate/severe perineal pain at 10 days	1	885	Relative Risk (Fixed) 95% CI	1.04 [0.67, 1.62]
25 Use of oral analgesia at 10 days	1	885	Relative Risk (Fixed) 95% CI	1.47 [0.63, 3.40]
26 Any perineal pain at 3 months	1	895	Relative Risk (Fixed) 95% CI	0.98 [0.62, 1.55]
27 Moderate/severe perineal pain at 3 months	1	895	Relative Risk (Fixed) 95% CI	1.51 [0.65, 3.49]
28 No attempt at intercourse in 3 months	1	895	Relative Risk (Fixed) 95% CI	0.92 [0.61, 1.39]
29 Any dyspareunia within 3 months	1	895	Relative Risk (Fixed) 95% CI	1.02 [0.90, 1.16]
30 Dyspareunia at 3 months	1	895	Relative Risk (Fixed) 95% CI	1.22 [0.94, 1.59]
31 Ever suffering dyspareunia in 3 years	1	674	Relative Risk (Fixed) 95% CI	1.21 [0.84, 1.75]
32 Perineal haematoma at discharge	1	2296	Relative Risk (Fixed) 95% CI	0.96 [0.65, 1.42]
33 Healing complications at 7 days	1	1119	Relative Risk (Fixed) 95% CI	0.69 [0.56, 0.85]
34 Perineal wound dehiscence at 7 days	1	1118	Relative Risk (Fixed) 95% CI	0.48 [0.30, 0.75]
35 Perineal infection	2	1298	Relative Risk (Fixed) 95% CI	1.02 [0.48, 2.16]
36 Urinary incontinence at 3 months	1	895	Relative Risk (Fixed) 95% CI	1.00 [0.76, 1.30]
37 Any urinary incontinence at 3 years	1	674	Relative Risk (Fixed) 95% CI	0.95 [0.77, 1.16]
38 Pad wearing for urinary incontinence	1	674	Relative Risk (Fixed) 95% CI	1.16 [0.71, 1.89]
39 Apgar score less than 7 at 1 minute	3	3799	Relative Risk (Fixed) 95% CI	1.09 [0.78, 1.51]
40 Admission to special care baby unit	2	1200	Relative Risk (Fixed) 95% CI	0.74 [0.46, 1.19]

Outcome title	No. of studies	No. of participants	Statistical method	Effect size
01 Number of episiotomies	1	698	Relative Risk (Fixed) 95% CI	0.67 [0.59, 0.78]
02 Number of episiotomies (primiparae)	1	356	Relative Risk (Fixed) 95% CI	0.70 [0.61, 0.81]
03 Number of episiotomies (multiparae)	1	342	Relative Risk (Fixed) 95% CI	0.65 [0.50, 0.86]
04 Assisted delivery rate	1	692	Relative Risk (Fixed) 95% CI	0.87 [0.49, 1.55]
05 Severe vaginal/perineal trauma	1	698	Relative Risk (Fixed) 95% CI	1.03 [0.63, 1.69]
06 Severe vaginal/perineal trauma (primiparae)	1	356	Relative Risk (Fixed) 95% CI	1.10 [0.67, 1.81]
07 Severe vaginal/perineal trauma (multiparae)	1	342	Relative Risk (Fixed) 95% CI	0.94 [0.19, 4.61]
08 Severe perineal trauma	1	698	Relative Risk (Fixed) 95% CI	1.03 [0.63, 1.69]
09 Severe perineal trauma (primiparae)	1	356	Relative Risk (Fixed) 95% CI	1.10 [0.67, 1.81]
10 Severe perineal trauma (multiparae)	1	342	Relative Risk (Fixed) 95% CI	0.94 [0.19, 4.61]
11 Any posterior perineal trauma	1	698	Relative Risk (Fixed) 95% CI	0.92 [0.87, 0.99]
12 Any posterior perineal trauma (primiparae)	1	356	Relative Risk (Fixed) 95% CI	0.99 [0.93, 1.05]
13 Any posterior perineal trauma (multiparae)	1	342	Relative Risk (Fixed) 95% CI	0.86 [0.76, 0.97]
14 Any anterior trauma	1	698	Relative Risk (Fixed) 95% CI	1.41 [0.95, 2.09]
15 Any anterior trauma (primiparae)	1	356	Relative Risk (Fixed) 95% CI	1.22 [0.69, 2.18]
16 Any anterior trauma (multiparae)	1	342	Relative Risk (Fixed) 95% CI	1.57 [0.91, 2.71]
17 Perineal bulging at 3 months	1	667	Relative Risk (Fixed) 95% CI	0.84 [0.50, 1.40]
18 Urinary incontinence at 3 months	1	674	Relative Risk (Fixed) 95% CI	0.95 [0.68, 1.32]
19 Admission to special care baby unit	1	698	Relative Risk (Fixed) 95% CI	Not estimable

## Comparison 03. RESTRICTIVE versus ROUTINE EPISIOTOMY (midline)

### INDEX TERMS

## Medical Subject Headings (MeSH)

\*Episiotomy

### MeSH check words

Female; Humans; Pregnancy

### COVER SHEET

Title	Episiotomy for vaginal birth
Authors	Carroli G, Belizan J
Contribution of author(s)	Information not supplied by author

Issue protocol first published	1997/2
Review first published	1997/2
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What's New	Information not supplied by author
Date new studies sought but none found	Information not supplied by author
Date new studies found but not yet included/excluded	Information not supplied by author
Date new studies found and included/excluded	Information not supplied by author
Date authors' conclusions section amended	Information not supplied by author
Contact address	Dr Guillermo Carroli Director Centro Rosarino de Estudios Perinatales Pueyrredon 985 Rosario Santa Fe 2000 ARGENTINA E-mail: gcarroli@crep.com.ar Tel: +54 41 483887 Fax: +54 41 483887
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### GRAPHS AND OTHER TABLES

## Analysis 01.01. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 01 Number of episiotomies

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 01 Number of episiotomies

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	392/1308	1046/1298		59.5	0.37 [ 0.34, 0.41 ]
Eltorkey 1994	53/100	83/100	-	4.7	0.64 [ 0.52, 0.78 ]
Harrison 1984	7/92	89/89	←	5.1	0.08 [ 0.04, 0.16 ]
House 1986	17/94	49/71	_ <b>-</b>	3.2	0.26 [ 0.17, 0.41 ]
Klein 1992	153/349	227/349	-	12.9	0.67 [ 0.59, 0.78 ]
Sleep 1984	51/498	258/502	-	14.6	0.20 [ 0.15, 0.26 ]
Total (95% CI)	2441	2409	•	100.0	0.38 [ 0.35, 0.41 ]
Total events: 673 (Treatm	nent), 1752 (Control)				
Test for heterogeneity ch	ni-square=131.70 df=5 p	=<0.0001 l² =96.2%			
Test for overall effect z=2	27.92 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

# Analysis 01.02. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 02 Number of episiotomies (primiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 02 Number of episiotomies (primiparae)

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	307/777	706/778	•	58.6	0.44 [ 0.40, 0.48 ]
Eltorkey 1994	53/100	83/100	-	6.9	0.64 [ 0.52, 0.78 ]
Harrison 1984	7/92	89/89	←	7.5	0.08 [ 0.04, 0.16 ]
House 1986	16/50	38/48		3.2	0.40 [ 0.26, 0.62 ]
Klein 1992	99/173	149/183	-	12.0	0.70 [ 0.61, 0.81 ]
Sleep 1984	36/201	147/219		11.7	0.27 [ 0.20, 0.36 ]
Total (95% CI)	1393	4 7	•	100.0	0.43 [ 0.40, 0.47 ]
Total events: 518 (Treatm	nent), 1212 (Control)				
Test for heterogeneity ch	i-square=87.99 df=5 p=<	0.0001 l² =94.3%			
Test for overall effect z=2	22.98 p<0.00001				

0.1 0.2 0.5 1 2 5 10

Episiotomy for vaginal birth (Review)

# Analysis 01.03. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 03 Number of episiotomies (multiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 03 Number of episiotomies (multiparae)

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	87/531	367/520	-	64.0	0.23 [ 0.19, 0.28 ]
House 1986	1/44	11/23	←	2.5	0.05 [ 0.01, 0.35 ]
Klein 1992	54/176	78/166	-	13.9	0.65 [ 0.50, 0.86 ]
Sleep 1984	15/297	111/283		19.6	0.13 [ 0.08, 0.22 ]
Total (95% Cl)	1048	992	•	100.0	0.27 [ 0.23, 0.3   ]
Total events: 157 (Treatm	ent), 567 (Control)				
Test for heterogeneity chi	-square=53.47 df=3 p=<	<0.0001  2 =94.4%			
Test for overall effect z=1	7.04 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.04. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 04 Assisted delivery rate

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 04 Assisted delivery rate

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	24/1302	32/1297		44.9	0.75 [ 0.44, 1.26 ]
Eltorkey 1994	4/100	5/100		7.0	0.80 [ 0.22, 2.89 ]
House 1986	10/94	10/71		15.9	0.76 [ 0.33, 1.72 ]
Klein 1992	20/346	23/346		32.2	0.87 [ 0.49, 1.55 ]
Total (95% Cl)	1842	1814	•	100.0	0.79 [ 0.56,  .   ]
Total events: 58 (Treatme	nt), 70 (Control)				
Test for heterogeneity chi	-square=0.16 df=3 p=0.1	98 l² =0.0%			
Test for overall effect z=1	.35 p=0.2				

0.1 0.2 0.5 2 5 10

Episiotomy for vaginal birth (Review)

### Analysis 01.05. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 05 Severe vaginal/ perineal trauma

Outcome: 05 Severe va	agınal/perineal trauma				
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	53/1308	47/1278	-	61.3	1.10 [ 0.75, 1.62 ]
Klein 1992	30/349	29/349		37.4	1.03 [ 0.63, 1.69 ]
Sleep 1984	4/498	1/502		1.3	4.03 [ 0.45, 35.95 ]
Total (95% CI)	2155	2129	+	100.0	1.11 [ 0.83, 1.50 ]
Total events: 87 (Treatme	nt), 77 (Control)				
Test for heterogeneity chi	-square=1.42 df=2 p=0.	49 l² =0.0%			
Test for overall effect z=0	0.71 p=0.5				

Analysis 01.06. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 06 Severe vaginal/ perineal trauma (primiparae)

Outcome: 06 Severe vaginal/perineal trauma (primiparae) Treatment Control Relative Risk (Fixed) Weight Relative Risk (Fixed) Study n/N 95% CI 95% CI n/N (%) . Argentine 1993 44/777 39/778 59.8 1.13 [ 0.74, 1.72 ] Klein 1992 27/173 26/183 38.8 1.10 [ 0.67, 1.81 ] Sleep 1984 3/201 1/219 1.5 3.27 [ 0.34, 31.17 ] Total (95% CI) 1151 1.15 [ 0.84, 1.58 ] 1180 100.0 Total events: 74 (Treatment), 66 (Control) Test for heterogeneity chi-square=0.86 df=2 p=0.65  $l^2$  =0.0% Test for overall effect z=0.86 p=0.4 0.1 0.2 0.5 2 5 10

Episiotomy for vaginal birth (Review)

Review: Episiotomy for vaginal birth

Review: Episiotomy for vaginal birth

Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all)

Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all)

## Analysis 01.07. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 07 Severe vaginal/ perineal trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 07 Severe vaginal/perineal trauma (multiparae)

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	9/531	8/520		69.2	1.10 [ 0.43, 2.83 ]
Klein 1992	3/176	3/166	<b>_</b>	26.4	0.94 [ 0.19, 4.61 ]
Sleep 1984	1/297	0/283		4.4	2.86 [ 0.12, 69.89 ]
Total (95% CI)	1004	969	-	100.0	1.14 [ 0.52, 2.48 ]
Total events: 13 (Treatme	nt), II (Control)				
Test for heterogeneity chi	-square=0.38 df=2 p=0.8	33 l² =0.0%			
Test for overall effect z=0	.32 p=0.7				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.08. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 08 Severe perineal trauma

Review: Episiotomy for v Comparison: 01 RESTRI Outcome: 08 Severe pe	vaginal birth CTIVE vs ROUTINE Ef rineal trauma	PISIOTOMY (all)			
Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	15/1308	19/1298		33.1	0.78 [ 0.40, 1.54 ]
× Eltorkey 1994	0/100	0/100		0.0	Not estimable
Harrison 1984	0/92	5/89	·	9.7	0.09 [ 0.00, 1.57 ]
House 1986	0/94	3/71	•	6.9	0.11 [ 0.01, 2.06 ]
Klein 1992	30/349	29/349	-	50.3	1.03 [ 0.63, 1.69 ]
Total (95% CI) Total events: 45 (Treatmen Test for heterogeneity chi Test for overall effect z=1	1943 nt), 56 (Control) -square=5.12 df=3 p=0.1 19 p=0.2	907 6  ² =4  .4%	-	100.0	0.80 [ 0.55, 1.16 ]

0.1 0.2 0.5 1 2 5 10

# Analysis 01.09. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 09 Severe perineal trauma (primiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	/777	14/778		29.5	0.79 [ 0.36, 1.72 ]
× Eltorkey 1994	0/100	0/100		0.0	Not estimable
Harrison 1984	0/92	5/89	·	11.8	0.09 [ 0.00, 1.57 ]
House 1986	0/50	2/48	·	5.4	0.19 [ 0.01, 3.90 ]
Klein 1992	27/173	26/183	-	53.3	1.10 [ 0.67, 1.81 ]
Total (95% CI)	1192	1198	•	100.0	0.84 [ 0.56, 1.25 ]
Total events: 38 (Treatme	nt), 47 (Control)				
Test for heterogeneity chi	-square=4.43 df=3 p=0.2	22 l² =32.3%			
Test for overall effect z=0	.86 p=0.4				
			<u> </u>		
			0.   0.2 0.5   2 5   0		

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 09 Severe perineal trauma (primiparae)

## Analysis 01.10. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 10 Severe perineal trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 10 Severe perineal trauma (multiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	4/531	5/520		50.0	0.78 [ 0.21, 2.90 ]
House 1986	0/44	1/23	• <b>•</b>	19.4	0.18[0.01,4.20]
Klein 1992	3/176	3/166		30.6	0.94 [ 0.19, 4.61 ]
Total (95% CI)	751	709		100.0	0.71 [ 0.28, 1.82 ]
Total events: 7 (Treatmen	t), 9 (Control)				
Test for heterogeneity chi	-square=0.88 df=2 p=0.6	64 l² =0.0%			
Test for overall effect z=0	.70 р=0.5				

0.1 0.2 0.5 1 2 5 10

Episiotomy for vaginal birth (Review)

## Analysis 01.11. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 11 Any posterior perineal trauma

Outcome: II Any posterior perineal trauma Treatment Control Relative Risk (Fixed) Weight Relative Risk (Fixed) Study 95% CI 95% CI n/N n/N (%) Eltorkey 1994 60/100 75/100 -8.8 0.80 [ 0.66, 0.97 ] -Harrison 1984 73/92 89/89 10.7 0.79 [ 0.71, 0.88 ] Klein 1992 282/349 305/349 F+ 35.9 0.92 [ 0.87, 0.99 ] Sleep 1984 329/498 380/502 44.6 0.87 [ 0.81, 0.95 ] Total (95% CI) 1039 1040 100.0 0.88 [ 0.84, 0.92 ] Total events: 744 (Treatment), 849 (Control) Test for heterogeneity chi-square=6.95 df=3 p=0.07 l<sup>2</sup> =56.9% Test for overall effect z=5.47 p<0.00001 0.1 0.2 0.5 1 5 10 2

## Analysis 01.12. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 12 Any posterior perineal trauma (primiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 12 Any posterior perineal trauma (primiparae)

Review: Episiotomy for vaginal birth

Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Eltorkey 1994	60/100	75/100	+	14.7	0.80 [ 0.66, 0.97 ]
Harrison 1984	73/92	89/89	-	17.7	0.79 [ 0.71, 0.88 ]
Klein 1992	160/173	171/183	+	32.5	0.99 [ 0.93, 1.05 ]
Sleep 1984	139/201	187/219	-	35.1	0.81 [ 0.73, 0.90 ]
Total (95% CI)	566	591	•	100.0	0.86 [ 0.82, 0.91 ]
Total events: 432 (Treatr	nent), 522 (Control)				
Test for heterogeneity cl	ni-square=26.18 df=3 p=	<0.0001  2 =88.5%			
Test for overall effect z=	5.41 p<0.00001				

0.1 0.2 0.5 2 5 10

Episiotomy for vaginal birth (Review)

# Analysis 01.13. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 13 Any posterior perineal trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 13 Any posterior perineal trauma (multiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	122/176	134/166	-	41.1	0.86 [ 0.76, 0.97 ]
Sleep 1984	190/297	193/283	•	58.9	0.94 [ 0.83, 1.05 ]
Total (95% CI)	473	449	•	100.0	0.91 [ 0.83, 0.99 ]
Total events: 312 (Tre	atment), 327 (Control)				
Test for heterogeneity	y chi-square=1.06 df=1 p=	=0.30 l² =6.0%			
Test for overall effect	z=2.27 p=0.02				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.14. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 14 Any anterior trauma

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 14 Any anterior trauma

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	230/1197	101/1247	-	41.1	2.37 [ 1.90, 2.96 ]
Eltorkey 1994	12/100	18/100		7.5	0.67 [ 0.34, 1.31 ]
Klein 1992	52/349	37/349		15.4	1.41 [ 0.95, 2.09 ]
Sleep 1984	131/498	87/502	-	36.0	1.52 [ 1.19, 1.93 ]
Total (95% Cl)	2144	2198	•	100.0	1.79 [ 1.55, 2.07 ]
Total events: 425 (Treatmer	nt), 243 (Control)				
Test for heterogeneity chi-s	quare=17.73 df=3 p=0	).0005 l² =83.1%			
Test for overall effect z=7.8	4 p<0.00001				

0.1 0.2 0.5 1 2 5 10

Episiotomy for vaginal birth (Review)

## Analysis 01.15. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 15 Any anterior trauma (primiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 15 Any anterior trauma (primiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Eltorkey 1994	12/100	18/100		21.6	0.67 [ 0.34,  .3  ]
Klein 1992	22/173	19/183		22.2	1.22 [ 0.69, 2.18 ]
Sleep 1984	66/201	49/219	-	56.3	1.47 [ 1.07, 2.01 ]
Total (95% CI)	474	502	<b>◆</b>	100.0	1.24 [ 0.96, 1.60 ]
Total events: 100 (Treatr	ment), 86 (Control)				
Test for heterogeneity cl	hi-square=4.33 df=2 p=0	.    <sup>2</sup> =53.8%			
Test for overall effect z=	1.66 p=0.1				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.16. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 16 Any anterior trauma (multiparae)

Treatment Control Relative Risk (Fixed) Weight Relative Risk (Fixed) Study 95% CI 95% CI n/N n/N (%) -Klein 1992 30/176 18/166 32.3 1.57 [ 0.91, 2.71 ] -1.63 [ 1.13, 2.35 ] Sleep 1984 65/297 38/283 67.7 Total (95% CI) 473 449 100.0 1.61 [ 1.19, 2.18 ] Total events: 95 (Treatment), 56 (Control) Test for heterogeneity chi-square=0.01 df=1 p=0.91 l<sup>2</sup> =0.0% Test for overall effect z=3.08 p=0.002 0.1 0.2 0.5 2 5 10 11

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 16 Any anterior trauma (multiparae)

## Analysis 01.17. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 17 Need for suturing perineal trauma

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 17 Need for suturing perineal trauma

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	817/1296	38/ 29	•	64.1	0.72 [ 0.68, 0.75 ]
Eltorkey 1994	62/100	86/100	+	4.8	0.72 [ 0.61, 0.86 ]
Harrison 1984	50/92	89/89	+	5.1	0.54 [ 0.45, 0.66 ]
House 1986	54/94	63/71	+	4.0	0.65 [ 0.53, 0.79 ]
Sleep 1984	344/498	392/502	-	21.9	0.88 [ 0.82, 0.95 ]
Total (95% CI)	2080	2053	•	100.0	0.74 [ 0.71, 0.77 ]
Total events: 1327 (Treatn	nent), 1768 (Control)				
Test for heterogeneity chi	-square=36.29 df=4 p=	<0.0001 l² =89.0%			
Test for overall effect z=1	5.94 p<0.00001				
			<u> </u>		
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.18. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 18 Need for suturing perineal trauma (primiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 18 Need for suturing perineal trauma (primiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	522/769	722/773		63.7	0.73 [ 0.69, 0.77 ]
Eltorkey 1994	62/100	86/100	+	7.6	0.72 [ 0.61, 0.86 ]
Harrison 1984	50/92	89/89	+	8.0	0.54 [ 0.45, 0.66 ]
House 1986	34/50	46/48	-	4.2	0.71 [ 0.58, 0.87 ]
Sleep 1984	149/201	195/219	-	16.5	0.83 [ 0.76, 0.91 ]
Total (95% CI)	1212	1229	•	100.0	0.73 [ 0.70, 0.76 ]
Total events: 817 (Treatm	ent), 1138 (Control)				
Test for heterogeneity chi	-square=17.25 df=4 p=0	0.002 l² =76.8%			
Test for overall effect z=1	4.72 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

# Analysis 01.19. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 19 Need for suturing perineal trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 19 Need for suturing perineal trauma (multiparae)

Outcome: 17 Need for suturing perinear trauma (multiparae)

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% Cl	(%)	95% CI
Argentine 1993	295/527	416/518	-	65.4	0.70 [ 0.64, 0.76 ]
House 1986	20/44	17/23		3.5	0.61 [ 0.41, 0.92 ]
Sleep 1984	196/297	195/283	•	31.1	0.96 [ 0.86, 1.07 ]
Total (95% CI)	868	824	*	100.0	0.78 [ 0.72, 0.83 ]
Total events: 511 (Treatme	ent), 628 (Control)				
Test for heterogeneity chi-	-square=20.44 df=2 p=<	<0.0001 l <sup>2</sup> =90.2%			
Test for overall effect z=7.	.36 p<0.00001				
			0.1 0.2 0.5 2 5 10		

## Analysis 01.20. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 20 Estimated blood loss at delivery

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 20 Estimated blood loss at delivery

Study		Treatment		Control	Weighted Mean Difference	e (Fixed) Weight	Weighted Mean Difference (Fixed)
	Ν	Mean(SD)	Ν	Mean(SD)	95% CI	(%)	95% CI
House 1986	94	214.00 (162.00)	71	272.00 (160.00)	←	100.0	-58.00 [ -107.57, -8.43 ]
Total (95% CI)	94		71		_	100.0	-58.00 [ -107.57, -8.43 ]
Test for heteroge	neity: no	t applicable					
Test for overall ef	fect z=2	.29 p=0.02					

-10.0 -5.0 0 5.0 10.0

## Analysis 01.21. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 21 Moderate/ severe perineal pain at 3 days

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 21 Moderate/severe perineal pain at 3 days

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
House 1986	30/94	32/71	-	100.0	0.71 [ 0.48, 1.05 ]
Total (95% CI)	94	71	•	100.0	0.71 [ 0.48, 1.05 ]
Total events: 30 (Treati	ment), 32 (Control)				
Test for heterogeneity:	not applicable				
Test for overall effect z	=1.73 p=0.08				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.22. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 22 Any perineal pain at discharge

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 22 Any perineal pain at discharge

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	371/1207	516/1215	-	100.0	0.72 [ 0.65, 0.81 ]
Total (95% CI)	1207	1215	•	100.0	0.72 [ 0.65, 0.81 ]
Total events: 371 (Treatm	ent), 516 (Control)				
Test for heterogeneity: no	ot applicable				
Test for overall effect z=5	.92 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.23. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 23 Any perineal pain at 10 days

Review: Episiotomy	for vaginal birth				
		LI ISIOTOTI (all)			
Outcome: 23 Any p	erineal pain at 10 days				
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% Cl
Sleep 1984	99/439	101/446	-	100.0	1.00 [ 0.78, 1.27 ]
Total (95% Cl)	439	446	+	100.0	1.00 [ 0.78, 1.27 ]
Total events: 99 (Treat	tment), 101 (Control)				
Test for heterogeneity	v: not applicable				
Test for overall effect	z=0.03 p=1				
			0.1 0.2 0.5 1 2 5 10		

### Episiotomy for vaginal birth (Review)

## Analysis 01.24. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 24 Moderate/ severe perineal pain at 10 days

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 24 Moderate/severe perineal pain at 10 days

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	37/439	36/446	-	100.0	1.04 [ 0.67, 1.62 ]
Total (95% CI)	439	446	+	100.0	1.04 [ 0.67, 1.62 ]
Total events: 37 (Treat	tment), 36 (Control)				
Test for heterogeneity	/: not applicable				
Test for overall effect	z=0.19 p=0.8				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.25. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 25 Use of oral analgesia at 10 days

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 25 Use of oral analgesia at 10 days

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	13/439	9/446		100.0	1.47 [ 0.63, 3.40 ]
Total (95% CI)	439	446	-	100.0	1.47 [ 0.63, 3.40 ]
Total events: 13 (Trea	atment), 9 (Control)				
Test for heterogeneit	y: not applicable				
Test for overall effect	z=0.90 p=0.4				
			0.1 0.2 0.5 2 5 10		

## Analysis 01.26. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 26 Any perineal pain at 3 months

Review: Episiotomy Comparison: 01 RES	for vaginal birth STRICTIVE vs ROUTINE	FPISIOTOMY (all)			
Outcome: 26 Any p	erineal pain at 3 months				
Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	33/438	35/457	-	100.0	0.98 [ 0.62, 1.55 ]
Total (95% CI)	438	457	+	100.0	0.98 [ 0.62, 1.55 ]
Total events: 33 (Treat	tment), 35 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect :	z=0.07 p=0.9				
			0.1 0.2 0.5 1 2 5 10		

#### Episiotomy for vaginal birth (Review)

## Analysis 01.27. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 27 Moderate/ severe perineal pain at 3 months

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 27 Moderate/severe perineal pain at 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	3/438	9/457		100.0	1.51 [ 0.65, 3.49 ]
Total (95% Cl)	438	457		100.0	1.51 [ 0.65, 3.49 ]
Total events: 13 (Treatr	ment), 9 (Control)				
Test for heterogeneity:	not applicable				
Test for overall effect z	=0.96 p=0.3				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.28. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 28 No attempt at intercourse in 3 months

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 28 No attempt at intercourse in 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	39/438	44/457	-	100.0	0.92 [ 0.61, 1.39 ]
Total (95% CI)	438	457	•	100.0	0.92 [ 0.61, 1.39 ]
Total events: 39 (Trea	tment), 44 (Control)				
Test for heterogeneity	v: not applicable				
Test for overall effect	z=0.37 p=0.7				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.29. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 29 Any dyspareunia within 3 months

Review: Episiotomy	for vaginal birth				
Comparison: 01 RES	STRICTIVE vs ROUTINE	EPISIOTOMY (all)			
Outcome: 29 Any d	yspareunia within 3 montl	hs			
Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	228/438	233/457		100.0	1.02 [ 0.90, 1.16 ]
Total (95% CI)	438	457	•	100.0	1.02 [ 0.90, 1.16 ]
Total events: 228 (Tre	atment), 233 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect :	z=0.32 p=0.7				
			0.1 0.2 0.5 1 2 5 10		

### Episiotomy for vaginal birth (Review)

## Analysis 01.30. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 30 Dyspareunia at 3 months

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 30 Dyspareunia at 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	96/438	82/457		100.0	1.22 [ 0.94, 1.59 ]
Total (95% CI)	438	457	•	100.0	1.22 [ 0.94, 1.59 ]
Total events: 96 (Trea	tment), 82 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=1.49 p=0.1				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.31. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 31 Ever suffering dyspareunia in 3 years

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 31 Ever suffering dyspareunia in 3 years

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
				( 7	
Sleep 1984	52/329	45/345		100.0	1.21 [ 0.84, 1.75 ]
Total (95% Cl)	329	345	•	100.0	1.21 [ 0.84, 1.75 ]
Total events: 52 (Treat	tment), 45 (Control)				
Test for heterogeneity	: not applicable				
Test for overall effect	z=1.02 p=0.3				
			0.1 0.2 0.5 2 5 10		

## Analysis 01.32. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 32 Perineal haematoma at discharge

Review: Episiotomy for	vaginal birth				
Comparison: 01 RESTR	ICTIVE vs ROUTINE E	PISIOTOMY (all)			
Outcome: 32 Perineal h	naematoma at discharge				
Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	47/1148	49/1148	-	100.0	0.96 [ 0.65, 1.42 ]
Total (95% CI)	1148	1148	+	100.0	0.96 [ 0.65, 1.42 ]
Total events: 47 (Treatme	ent), 49 (Control)				
Test for heterogeneity: no	ot applicable				
Test for overall effect z=0	0.21 p=0.8				
			0.1 0.2 0.5 1 2 5 10		

### Episiotomy for vaginal birth (Review)

## Analysis 01.33. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 33 Healing complications at 7 days

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 33 Healing complications at 7 days

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	114/555	168/564	-	100.0	0.69 [ 0.56, 0.85 ]
Total (95% Cl)	555	564	•	100.0	0.69 [ 0.56, 0.85 ]
Total events: 114 (Treatm	ient), 168 (Control)				
Test for heterogeneity: no	ot applicable				
Test for overall effect z=3	8.52 p=0.0004				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.34. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 34 Perineal wound dehiscence at 7 days

Review: Episiotomy for	vaginal birth				
Comparison: 01 RESTR	ICTIVE vs ROUTINE E	PISIOTOMY (all)			
Outcome: 34 Perineal v	vound dehiscence at 7 da	iys			
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	25/557	53/561	-	100.0	0.48 [ 0.30, 0.75 ]
Total (95% CI)	557	561	•	100.0	0.48 [ 0.30, 0.75 ]
Total events: 25 (Treatme	nt), 53 (Control)				
Test for heterogeneity: no	ot applicable				
Test for overall effect z=3	.17 p=0.002				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 01.35. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 35 Perineal infection

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 35 Perineal infection

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	9/555	10/578		74.1	0.94 [ 0.38, 2.29 ]
House 1986	5/94	3/71		25.9	1.26 [ 0.31, 5.09 ]
Total (95% Cl)	649	649	-	100.0	1.02 [ 0.48, 2.16 ]
Total events: 14 (Treatme	nt), 13 (Control)				
Test for heterogeneity chi	-square=0.12 df=1 p=0.	73 l² =0.0%			
Test for overall effect z=0	.05 p=1				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 01.36. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 36 Perineal bulging at 3 months

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 36 Perineal bulging at 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	24/332	29/335		100.0	0.84 [ 0.50, 1.40 ]
Total (95% Cl)	332	335	-	100.0	0.84 [ 0.50, 1.40 ]
Total events: 24 (Trea	tment), 29 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=0.68 p=0.5				
			0,1,0,2,0,5,1,2,5,10		

## Analysis 01.37. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 37 Urinary incontinence at 3 months

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 37 Urinary incontinence at 3 months

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Klein 1992	57/337	60/337	-	41.3	0.95 [ 0.68, 1.32 ]
Sleep 1984	83/438	87/457	+	58.7	1.00 [ 0.76, 1.30 ]
Total (95% CI)	775	794	+	100.0	0.98 [ 0.79, 1.20 ]
Total events: 140 (Tre	atment), 147 (Control)				
Test for heterogeneity	y chi-square=0.05 df=1 p=	=0.83 l <sup>2</sup> =0.0%			
Test for overall effect	z=0.22 p=0.8				
			0.1 0.2 0.5 1 2 5 10		

Analysis 01.38. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 38 Any urinary incontinence at 3 years

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 38 Any urinary incontinence at 3 years

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	112/329	124/345		100.0	0.95 [ 0.77, 1.16 ]
Total (95% CI)	329	345	+	100.0	0.95 [ 0.77, 1.16 ]
Total events: 112 (Tre	atment), 124 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect	z=0.52 p=0.6				
			0.1 0.2 0.5 2 5 10		

## Analysis 01.39. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 39 Pad wearing for urinary incontinence

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 39 Pad wearing for urinary incontinence

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	31/329	28/345		100.0	1.16 [ 0.71, 1.89 ]
Total (95% CI)	329	345	-	100.0	1.16 [ 0.71, 1.89 ]
Total events: 31 (Treate	ment), 28 (Control)				
Test for heterogeneity:	not applicable				
Test for overall effect z	=0.60 p=0.5				
			<u> </u>		
			0.1 0.2 0.5 2 5 10		

## Analysis 01.40. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 40 Apgar score less than 7 at 1 minute

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 40 Apgar score less than 7 at 1 minute

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	43/1306	39/1293	-	60.2	1.09 [ 0.71, 1.67 ]
Eltorkey 1994	1/100	3/100	•	4.6	0.33 [ 0.04, 3.15 ]
Sleep 1984	27/498	23/502		35.2	1.18 [ 0.69, 2.04 ]
Total (95% CI)	1904	1895	+	100.0	1.09 [ 0.78, 1.51 ]
Total events: 71 (Treatmer	nt), 65 (Control)				
Test for heterogeneity chi-	square=1.16 df=2 p=0.5	56 l² =0.0%			
Test for overall effect z=0.	51 p=0.6				

0.1 0.2 0.5 1 2 5 10

## Analysis 01.41. Comparison 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all), Outcome 41 Admission to special care baby unit

Review: Episiotomy for vaginal birth Comparison: 01 RESTRICTIVE vs ROUTINE EPISIOTOMY (all) Outcome: 41 Admission to special care baby unit



### Analysis 02.01. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 01 Number of episiotomies

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 01 Number of episiotomies

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	392/1308	1046/1298		68.3	0.37 [ 0.34, 0.41 ]
Eltorkey 1994	53/100	83/100	-	5.4	0.64 [ 0.52, 0.78 ]
Harrison 1984	7/92	89/89	←	5.9	0.08 [ 0.04, 0.16 ]
House 1986	17/94	49/71	_ <b>-</b> _	3.6	0.26 [ 0.17, 0.41 ]
Sleep 1984	51/498	258/502	-	16.7	0.20 [ 0.15, 0.26 ]
Total (95% Cl)	2092	2060	•	100.0	0.34 [ 0.31, 0.36 ]
Total events: 520 (Treatme	nt), 1525 (Control)				
Test for heterogeneity chi-s	quare=74.85 df=4 p=	<0.0001  2 =94.7%			
Test for overall effect z=27	.58 p<0.00001				

0.1 0.2 0.5 1 2 5 10

## Analysis 02.02. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 02 Number of episiotomies (primiparae)

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Outcome: 02 Number of episiotomies (primiparae)

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	307/777	706/778	-	66.7	0.44 [ 0.40, 0.48 ]
Eltorkey 1994	53/100	83/100	+	7.8	0.64 [ 0.52, 0.78 ]
Harrison 1984	7/92	89/89	←	8.5	0.08 [ 0.04, 0.16 ]
House 1986	16/50	38/48		3.7	0.40 [ 0.26, 0.62 ]
Sleep 1984	36/201	147/219	-	13.3	0.27 [ 0.20, 0.36 ]
Total (95% Cl)	1220	1234	•	100.0	0.40 [ 0.37, 0.43 ]
Total events: 419 (Treatm	ient), 1063 (Control)				
Test for heterogeneity chi	-square=51.72 df=4 p=<	<0.0001 l² =92.3%			
Test for overall effect z=2	2.54 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 02.03. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 03 Number of episiotomies (multiparae)

Comparison: 02 RESTRI	CTIVE versus ROUTINE	EPISIOTOMY (medio	lateral)		
Outcome: 03 Number of	of episiotomies (multipara	ae)			
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	87/531	367/520	-	74.3	0.23 [ 0.19, 0.28 ]
House 1986	1/44	11/23		2.9	0.05 [ 0.01, 0.35 ]
Sleep 1984	15/297	/283	-	22.8	0.13 [ 0.08, 0.22 ]
Total (95% CI)	872	826	•	100.0	0.20 [ 0.17, 0.24 ]
Total events: 103 (Treatme	ent), 489 (Control)				
Test for heterogeneity chi-	-square=6.79 df=2 p=0.0	)3 l² =70.5%			
Test for overall effect z=1	6.77 p<0.00001				
			0.1 0.2 0.5 2 5 10		

Review: Episiotomy for vaginal birth

## Analysis 02.04. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 04 Assisted delivery rate

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 04 Assisted delivery rate

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Review: Episiotomy for vaginal birth

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	24/1302	32/1297		66.2	0.75 [ 0.44, 1.26 ]
Eltorkey 1994	4/100	5/100		10.3	0.80 [ 0.22, 2.89 ]
House 1986	10/94	10/71		23.5	0.76 [ 0.33, 1.72 ]
Total (95% Cl)	1496	1468	-	100.0	0.75 [ 0.50, 1.15 ]
Total events: 38 (Treatme	nt), 47 (Control)				
Test for heterogeneity ch	i-square=0.01 df=2 p=1.0	00 l² =0.0%			
Test for overall effect z=1	.32 p=0.2				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.05. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 05 Severe vaginal/perineal trauma

Outcome: 05 Severe va	aginal/perineal trauma				
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	53/1308	47/1278		97.9	1.10 [ 0.75, 1.62 ]
Sleep 1984	4/498	1/502		2.1	4.03 [ 0.45, 35.95 ]
Total (95% CI)	1806	1780	-	100.0	1.16 [ 0.80, 1.69 ]
Total events: 57 (Treatme	ent), 48 (Control)				
Test for heterogeneity chi	i-square=1.32 df=1 p=0.	25 l² =24.0%			
Test for overall effect z=0	).78 p=0.4				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.06. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 06 Severe vaginal/perineal trauma (primiparae)

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 06 Severe vaginal/perineal trauma (primiparae)

Control Relative Risk (Fixed) Weight Relative Risk (Fixed) Study Treatment 95% CI 95% CI n/N n/N (%) Argentine 1993 44/777 39/778 . 97.6 1.13 [ 0.74, 1.72 ] Sleep 1984 3/201 1/219 2.4 3.27 [ 0.34, 31.17 ] Total (95% CI) 978 997 100.0 1.18 [ 0.78, 1.78 ] Total events: 47 (Treatment), 40 (Control) Test for heterogeneity chi-square=0.83 df=1 p=0.36 l<sup>2</sup> =0.0% Test for overall effect z=0.79 p=0.4 0.1 0.2 0.5 2 5 10 i.

### Analysis 02.07. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 07 Severe vaginal/perineal trauma (multiparae)

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 07 Severe vaginal/perineal trauma (multiparae) Study Treatment Control Relative Risk (Fixed) Weight Relative Risk (Fixed) 95% CI 95% CI n/N n/N (%) Argentine 1993 8/520 94.0 1.10 [ 0.43, 2.83 ] 9/531 Sleep 1984 1/297 0/283 6.0 2.86 [ 0.12, 69.89 ] Total (95% CI) 828 803 100.0 1.21 [ 0.49, 2.96 ] Total events: 10 (Treatment), 8 (Control) Test for heterogeneity chi-square=0.32 df=1 p=0.57 l<sup>2</sup> =0.0% Test for overall effect z=0.41 p=0.7 0.1 0.2 0.5 2 5 10

Review: Episiotomy for vaginal birth

## Analysis 02.08. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 08 Severe perineal trauma

Treatment Control Relative Risk (Fixed) Weight Relative Risk (Fixed) Study 95% CI 95% CI n/N n/N (%) Argentine 1993 15/1308 19/1298 66.6 0.78 [ 0.40, 1.54 ] × Eltorkey 1994 0/100 0/100 0.0 Not estimable Harrison 1984 0/92 5/89 19.5 0.09 [ 0.00, 1.57 ] House 1986 0/94 3/71 13.9 0.11 [ 0.01, 2.06 ] Total (95% CI) 1594 1558 100.0 0.55 [ 0.30, 1.01 ] Total events: 15 (Treatment), 27 (Control) Test for heterogeneity chi-square=3.77 df=2 p=0.15 l<sup>2</sup> =46.9% Test for overall effect z=1.91 p=0.06 0.1 0.2 0.5 5 10 2

Analysis 02.09. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 09 Severe perineal trauma (primiparae)

Outcome: 09 Severe pe	erineal trauma (primipara	e)			
Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	11/777	14/778		63.2	0.79 [ 0.36, 1.72 ]
× Eltorkey 1994	0/100	0/100		0.0	Not estimable
Harrison 1984	0/92	5/89	·	25.3	0.09 [ 0.00, 1.57 ]
House 1986	0/50	2/48	<b>←■</b>	11.5	0.19 [ 0.01, 3.90 ]
Total (95% Cl) Total events:    (Treatme	1019 ent), 21 (Control)	1015		100.0	0.54 [ 0.27, 1.09 ]
Test for heterogeneity ch Test for overall effect z=1	i-square=2.86 df=2 p=0.2	24 l² =30.0%			
			0.1 0.2 0.5 1 2 5 10		

Episiotomy for vaginal birth (Review)

Review: Episiotomy for vaginal birth

Outcome: 08 Severe perineal trauma

Review: Episiotomy for vaginal birth

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

## Analysis 02.10. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 10 Severe perineal trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 10 Severe perineal trauma (multiparae)

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Review: Episiotomy for vaginal birth

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	4/531	5/520		72.1	0.78 [ 0.21, 2.90 ]
House 1986	0/44	1/23	←■	27.9	0.18 [ 0.01, 4.20 ]
Total (95% CI)	575	543		100.0	0.61 [ 0.19, 1.97 ]
Total events: 4 (Treatmen	t), 6 (Control)				
Test for heterogeneity chi	-square=0.72 df=1 p=0.	40 l² =0.0%			
Test for overall effect z=0	0.82 p=0.4				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.11. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 11 Any posterior perineal trauma

Outcome: II Any posterior perineal trauma Study Treatment Control Relative Risk (Fixed) Weight Relative Risk (Fixed) 95% CI 95% CI n/N n/N (%) -Eltorkey 1994 75/100 13.8 0.80 [ 0.66, 0.97 ] 60/100 Harrison 1984 73/92 89/89 -16.6 0.79 [ 0.71, 0.88 ] Sleep 1984 329/498 380/502 + 69.6 0.87 [ 0.81, 0.95 ] Total (95% CI) 690 691 100.0 0.85 [ 0.80, 0.91 ] Total events: 462 (Treatment), 544 (Control) Test for heterogeneity chi-square=2.44 df=2 p=0.29  $|^2$  =18.1% Test for overall effect z=4.95 p<0.00001

0.1 0.2 0.5 1 2 5 10

## Analysis 02.12. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 12 Any posterior perineal trauma (primiparae)

Review: Episiotomy for vaginal birth

Review: Episiotomy for vaginal birth

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Outcome: 12 Any posterior perineal trauma (primiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Eltorkey 1994	60/100	75/100	-	21.8	0.80 [ 0.66, 0.97 ]
Harrison 1984	73/92	89/89	-	26.3	0.79 [ 0.71, 0.88 ]
Sleep 1984	39/20	187/219	-	52.0	0.81 [ 0.73, 0.90 ]
Total (95% CI)	393	408	•	100.0	0.80 [ 0.75, 0.87 ]
Total events: 272 (Treatn	nent), 351 (Control)				
Test for heterogeneity ch	ni-square=0.08 df=2 p=0	.96 l² =0.0%			
Test for overall effect z=	5.69 p<0.00001				
			<u> </u>		
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.13. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 13 Any posterior perineal trauma (multiparae)

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)									
Outcome: 13 Any po	osterior perineal trauma (	(multiparae)							
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)				
	n/N	n/N	95% CI	(%)	95% CI				
Sleep 1984	190/297	193/283	-	100.0	0.94 [ 0.83, 1.05 ]				
Total (95% CI)	297	283	•	100.0	0.94 [ 0.83, 1.05 ]				
Total events: 190 (Trea	atment), 193 (Control)								
Test for heterogeneity:	: not applicable								
Test for overall effect z	z=1.07 p=0.3								
			0.1 0.2 0.5 1 2 5 10						

## Analysis 02.14. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 14 Any anterior trauma

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 14 Any anterior trauma

Review: Episiotomy for vaginal birth

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N n/N		95% CI	(%)	95% CI
Argentine 1993	230/1197	101/1247	-	48.6	2.37 [ 1.90, 2.96 ]
Eltorkey 1994	12/100	18/100		8.8	0.67 [ 0.34,  .3  ]
Sleep 1984	131/498	87/502	-	42.6	1.52 [ 1.19, 1.93 ]
Total (95% Cl)	1795	1849	•	100.0	1.86 [ 1.59, 2.17 ]
Total events: 373 (Treatm	ent), 206 (Control)				
Test for heterogeneity chi	-square=16.27 df=2 p=0	0.0003 l² =87.7%			
Test for overall effect z=7	.76 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.15. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 15 Any anterior trauma (primiparae)



## Analysis 02.16. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 16 Any anterior trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 16 Any anterior trauma (multiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	65/297	38/283		100.0	1.63 [ 1.13, 2.35 ]
Total (95% CI)	297	283	•	100.0	1.63 [ 1.13, 2.35 ]
Total events: 65 (Trea	atment), 38 (Control)				
Test for heterogeneit	y: not applicable				
Test for overall effect	z=2.62 p=0.009				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.17. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 17 Need for suturing perineal trauma

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Outcome: 17 Need for suturing perineal trauma

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	817/1296	38/ 29	•	64.1	0.72 [ 0.68, 0.75 ]
Eltorkey 1994	62/100	86/100	+	4.8	0.72 [ 0.61, 0.86 ]
Harrison 1984	50/92	89/89	+	5.1	0.54 [ 0.45, 0.66 ]
House 1986	54/94	63/71	+	4.0	0.65 [ 0.53, 0.79 ]
Sleep 1984	344/498	392/502	-	21.9	0.88 [ 0.82, 0.95 ]
Total (95% CI)	2080	2053	•	100.0	0.74 [ 0.71, 0.77 ]
Total events: 1327 (Treatr	nent), 1768 (Control)				
Test for heterogeneity chi	-square=36.29 df=4 p=	<0.0001  2 =89.0%			
Test for overall effect z=1	5.94 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

Episiotomy for vaginal birth (Review)

## Analysis 02.18. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 18 Need for suturing perineal trauma (primiparae)

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Outcome: 18 Need for suturing perineal trauma (primiparae)

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N n/N		95% CI	(%)	95% CI
Argentine 1993	522/769	722/773		63.7	0.73 [ 0.69, 0.77 ]
Eltorkey 1994	62/100	86/100	+	7.6	0.72 [ 0.61, 0.86 ]
Harrison 1984	50/92	89/89	+	8.0	0.54 [ 0.45, 0.66 ]
House 1986	34/50	46/48	+	4.2	0.71 [ 0.58, 0.87 ]
Sleep 1984	149/201	195/219	-	16.5	0.83 [ 0.76, 0.91 ]
Total (95% Cl)	1212	1229	•	100.0	0.73 [ 0.70, 0.76 ]
Total events: 817 (Treatm	ent), 1138 (Control)				
Test for heterogeneity chi	-square=17.25 df=4 p=0	0.002 l² =76.8%			
Test for overall effect z=1	4.72 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 02.19. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 19 Need for suturing perineal trauma (multiparae)

Review: Episiotomy for vaginal birth

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Outcome: 19 Need for suturing perineal trauma (multiparae)

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% Cl	(%)	95% CI
Argentine 1993	295/527	416/518		65.4	0.70 [ 0.64, 0.76 ]
House 1986	20/44	17/23		3.5	0.61 [ 0.41, 0.92 ]
Sleep 1984	196/297	195/283	•	31.1	0.96 [ 0.86, 1.07 ]
Total (95% CI)	868	824	*	100.0	0.78 [ 0.72, 0.83 ]
Total events: 511 (Treatm	ent), 628 (Control)				
Test for heterogeneity ch	i-square=20.44 df=2 p=<	0.0001 l² =90.2%			
Test for overall effect z=7	7.36 p<0.00001				

0.1 0.2 0.5 2 5 10

Review: Episiotomy for vaginal birth

Episiotomy for vaginal birth (Review)

## Analysis 02.20. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 20 Estimated blood loss at delivery

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 20 Estimated blood loss at delivery

Study		Treatment		Control	We	ighted M	ean [	Differend	e (Fixed)	Weight	Weighted Mean Difference (Fixed)
	Ν	Mean(SD)	Ν	Mean(SD)			95%	6 CI		(%)	95% CI
House 1986	94	214.00 (162.00)	71	272.00 (160.00)	4					100.0	-58.00 [ -107.57, -8.43 ]
Total (95% CI)	94		71							100.0	-58.00 [ -107.57, -8.43 ]
Test for heteroger	neity: no	t applicable									
Test for overall eff	fect z=2	29 p=0.02									
					-10.0	-5.0	0	5.0	10.0		

### Analysis 02.21. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 21 Moderate/severe perineal pain at 3 days

Review: Episiotomy for vaginal birth

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 21 Moderate/severe perineal pain at 3 days

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
House 1986	30/94	32/71		100.0	0.71 [ 0.48, 1.05 ]
Total (95% CI)	94	71	•	100.0	0.71 [ 0.48, 1.05 ]
Total events: 30 (Treati	ment), 32 (Control)				
Test for heterogeneity:	not applicable				
Test for overall effect z	e=1.73 p=0.08				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.22. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 22 Any perineal pain at discharge

Comparison: 02 RESTR	ICTIVE versus ROUTINE	EPISIOTOMY (mediolat	teral)		
Outcome: 22 Any perir	neal pain at discharge				
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	371/1207	516/1215	•	100.0	0.72 [ 0.65, 0.81 ]
Total (95% CI)	1207	1215	•	100.0	0.72 [ 0.65, 0.81 ]
Total events: 371 (Treatm	ent), 516 (Control)				
Test for heterogeneity: no	ot applicable				
Test for overall effect z=5	.92 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

#### Episiotomy for vaginal birth (Review)

Review: Episiotomy for vaginal birth

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## Analysis 02.23. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 23 Any perineal pain at 10 days

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 23 Any perineal pain at 10 days

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	99/439	101/446		100.0	1.00 [ 0.78, 1.27 ]
Total (95% Cl)	439	446	•	100.0	1.00 [ 0.78, 1.27 ]
Total events: 99 (Trea	tment), 101 (Control)				
Test for heterogeneity	/: not applicable				
Test for overall effect	z=0.03 p=1				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.24. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 24 Moderate/severe perineal pain at 10 days

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 24 Moderate/severe perineal pain at 10 days

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	37/439	36/446	-	100.0	1.04 [ 0.67, 1.62 ]
Total (95% CI)	439	446	+	100.0	1.04 [ 0.67, 1.62 ]
Total events: 37 (Treat	ment), 36 (Control)				
Test for heterogeneity	: not applicable				
Test for overall effect :	z=0.19 p=0.8				
			0.1 0.2 0.5 2 5 10		

### Analysis 02.25. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 25 Use of oral analgesia at 10 days

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 25 Use of oral analgesia at 10 days Relative Risk (Fixed) Weight Relative Risk (Fixed) Study Treatment Control n/N n/N 95% CI (%) 95% CI Sleep 1984 9/446 13/439 \_ 100.0 1.47 [ 0.63, 3.40 ] Total (95% CI) 100.0 1.47 [ 0.63, 3.40 ] 439 446 Total events: 13 (Treatment), 9 (Control) Test for heterogeneity: not applicable Test for overall effect z=0.90 p=0.4 0.1 0.2 0.5 2 5 10

#### Episiotomy for vaginal birth (Review)

Review: Episiotomy for vaginal birth

## Analysis 02.26. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 26 Any perineal pain at 3 months

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 26 Any perineal pain at 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	33/438	35/457	-	100.0	0.98 [ 0.62, 1.55 ]
Total (95% CI)	438	457	+	100.0	0.98 [ 0.62, 1.55 ]
Total events: 33 (Treatr	ment), 35 (Control)				
Test for heterogeneity:	not applicable				
Test for overall effect z	=0.07 p=0.9				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.27. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 27 Moderate/severe perineal pain at 3 months

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 27 Moderate/severe perineal pain at 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	3/438	9/457		100.0	1.51 [ 0.65, 3.49 ]
Total (95% Cl)	438	457		100.0	1.51 [ 0.65, 3.49 ]
Total events:   3 (Treat	tment), 9 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect	z=0.96 p=0.3				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.28. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 28 No attempt at intercourse in 3 months

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Outcome: 28 No attempt at intercourse in 3 months

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Sleep 1984	39/438	44/457		100.0	0.92 [ 0.61, 1.39 ]
Total (95% CI)	438	457	+	100.0	0.92 [ 0.61, 1.39 ]
Total events: 39 (Trea	tment), 44 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=0.37 p=0.7				
			0.1 0.2 0.5 1 2 5 10		

#### Episiotomy for vaginal birth (Review)

## Analysis 02.29. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 29 Any dyspareunia within 3 months

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 29 Any dyspareunia within 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	228/438	233/457		100.0	1.02 [ 0.90, 1.16 ]
Total (95% CI)	438	457	+	100.0	1.02 [ 0.90, 1.16 ]
Total events: 228 (Trea	atment), 233 (Control)				
Test for heterogeneity	: not applicable				
Test for overall effect a	z=0.32 p=0.7				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.30. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 30 Dyspareunia at 3 months

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 30 Dyspareunia at 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	96/438	82/457		100.0	1.22 [ 0.94, 1.59 ]
Total (95% Cl)	438	457	<b>•</b>	100.0	1.22 [ 0.94, 1.59 ]
Total events: 96 (Treat	tment), 82 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect :	z=1.49 p=0.1				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.31. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 31 Ever suffering dyspareunia in 3 years

Comparison: 02 RES	STRICTIVE versus ROUTI	NE EPISIOTOMY (media	lateral)		
Outcome: 31 Ever s	uffering dyspareunia in 3 y	/ears			
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Sleep 1984	52/329	45/345		100.0	1.21 [ 0.84, 1.75 ]
Total (95% CI)	329	345	-	100.0	1.21 [ 0.84, 1.75 ]
Total events: 52 (Treat	tment), 45 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect :	z=1.02 p=0.3				
			0.1 0.2 0.5 1 2 5 10		

#### Episiotomy for vaginal birth (Review)

Review: Episiotomy for vaginal birth

## Analysis 02.32. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 32 Perineal haematoma at discharge

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 32 Perineal haematoma at discharge

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	47/1148	49/1148	-	100.0	0.96 [ 0.65, 1.42 ]
Total (95% CI)	1148	1148	+	100.0	0.96 [ 0.65, 1.42 ]
Total events: 47 (Treatmer	nt), 49 (Control)				
Test for heterogeneity: no	t applicable				
Test for overall effect z=0.	21 p=0.8				
			0.1 0.2 0.5 2 5 10		

### Analysis 02.33. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 33 Healing complications at 7 days

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 33 Healing complications at 7 days

Study	Treatment n/N	Control n/N	Relative R 959	isk (Fixed) 6 Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	114/555	168/564			100.0	0.69 [ 0.56, 0.85 ]
Total (95% CI) Total events: 114 (Treatm Test for heterogeneity: no	555 eent), 168 (Control) ot applicable	564	•		100.0	0.69 [ 0.56, 0.85 ]
Test for overall effect z=3	8.52 p=0.0004					
			0.1 0.2 0.5	1 2 5 10		

### Analysis 02.34. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 34 Perineal wound dehiscence at 7 days

Review: Episiotomy for va	aginal birth					
Comparison: 02 RESTRIC	CTIVE versus ROUTINE	EPISIOTOMY (mediolate	eral)			
Outcome: 34 Perineal wo	ound dehiscence at 7 da	iys				
Study	Treatment n/N	Control n/N	Relative Risk (F 95% Cl	ixed)	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	25/557	53/561			100.0	0.48 [ 0.30, 0.75 ]
Total (95% Cl)	557	561	•		100.0	0.48 [ 0.30, 0.75 ]
Total events: 25 (Treatment	t), 53 (Control)					
Test for heterogeneity: not	applicable					
Test for overall effect z=3.1	7 p=0.002					
			0.1 0.2 0.5 1 2	5 10		

#### Episiotomy for vaginal birth (Review)

## Analysis 02.35. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 35 Perineal infection

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 35 Perineal infection

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Argentine 1993	9/555	10/578		74.1	0.94 [ 0.38, 2.29 ]
House 1986	5/94	3/71		25.9	1.26 [ 0.31, 5.09 ]
Total (95% Cl)	649	649	-	100.0	1.02 [ 0.48, 2.16 ]
Total events: 14 (Treatme	nt), I3 (Control)				
Test for heterogeneity ch	-square=0.12 df=1 p=0.1	73 l² =0.0%			
Test for overall effect z=0	0.05 p=1				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.36. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 36 Urinary incontinence at 3 months

Review: Episiotomy for vaginal birth

Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral)

Outcome: 36 Urinary incontinence at 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	83/438	87/457		100.0	1.00 [ 0.76, 1.30 ]
Total (95% CI)	438	457	+	100.0	1.00 [ 0.76, 1.30 ]
Total events: 83 (Trea	itment), 87 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=0.03 p=1				
			0.1 0.2 0.5   2 5 10		

## Analysis 02.37. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 37 Any urinary incontinence at 3 years

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 37 Any urinary incontinence at 3 years

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	112/329	124/345	-	100.0	0.95 [ 0.77, 1.16 ]
Total (95% CI)	329	345	+	100.0	0.95 [ 0.77, 1.16 ]
Total events: 112 (Trea	atment), 124 (Control)				
Test for heterogeneity	: not applicable				
Test for overall effect a	z=0.52 p=0.6				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.38. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 38 Pad wearing for urinary incontinence

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 38 Pad wearing for urinary incontinence

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Sleep 1984	31/329	28/345		100.0	1.16 [ 0.71, 1.89 ]
Total (95% Cl)	329	345	-	100.0	1.16 [ 0.71, 1.89 ]
Total events: 31 (Treat	tment), 28 (Control)				
Test for heterogeneity	: not applicable				
Test for overall effect a	z=0.60 p=0.5				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 02.39. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 39 Apgar score less than 7 at 1 minute

Review: Episiotomy for vaginal birth Comparison: 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral) Outcome: 39 Apgar score less than 7 at 1 minute

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Argentine 1993	43/1306	39/1293		60.2	1.09 [ 0.71, 1.67 ]
Eltorkey 1994	1/100	3/100	·•	4.6	0.33 [ 0.04, 3.15 ]
Sleep 1984	27/498	23/502		35.2	1.18 [ 0.69, 2.04 ]
Total (95% Cl)	1904	1895	+	100.0	1.09 [ 0.78, 1.51 ]
Total events: 71 (Treatme	nt), 65 (Control)				
Test for heterogeneity chi	-square=1.16 df=2 p=0.5	56 l² =0.0%			
Test for overall effect z=0	0.51 p=0.6				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 02.40. Comparison 02 RESTRICTIVE versus ROUTINE EPISIOTOMY (mediolateral), Outcome 40 Admission to special care baby unit



## Analysis 03.01. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 01 Number of episiotomies

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 01 Number of episiotomies

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	153/349	227/349	+	100.0	0.67 [ 0.59, 0.78 ]
Total (95% Cl)	349	349	•	100.0	0.67 [ 0.59, 0.78 ]
Total events: 153 (Treat	tment), 227 (Control)				
Test for heterogeneity:	not applicable				
Test for overall effect z	=5.47 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 03.02. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 02 Number of episiotomies (primiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 02 Number of episiotomies (primiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	99/173	149/183	+	100.0	0.70 [ 0.61, 0.81 ]
Total (95% Cl)	173	183	•	100.0	0.70 [ 0.61, 0.81 ]
Total events: 99 (Treat	tment), 149 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect :	z=4.73 p<0.00001				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 03.03. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 03 Number of episiotomies (multiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 03 Number of episiotomies (multiparae)

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Klein 1992	54/176	78/166		100.0	0.65 [ 0.50, 0.86 ]
Total (95% Cl)	176	166	•	100.0	0.65 [ 0.50, 0.86 ]
Total events: 54 (Trea	tment), 78 (Control)				
Test for heterogeneity	/: not applicable				
Test for overall effect	z=3.04 p=0.002				
			0.1 0.2 0.5 2 5 10		

#### Episiotomy for vaginal birth (Review)

## Analysis 03.04. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 04 Assisted delivery rate

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 04 Assisted delivery rate

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	20/346	23/346		100.0	0.87 [ 0.49, 1.55 ]
Total (95% CI)	346	346	-	100.0	0.87 [ 0.49, 1.55 ]
Total events: 20 (Trea	tment), 23 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=0.47 p=0.6				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 03.05. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 05 Severe vaginal/perineal trauma

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 05 Severe vaginal/perineal trauma

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	30/349	29/349	-	100.0	1.03 [ 0.63, 1.69 ]
Total (95% CI)	349	349	+	100.0	1.03 [ 0.63, 1.69 ]
Total events: 30 (Treat	tment), 29 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect :	z=0.14 p=0.9				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 03.06. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 06 Severe vaginal/perineal trauma (primiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline)

Outcome: 06 Severe vaginal/perineal trauma (primiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
				()	
Klein 1992	27/173	26/183		100.0	1.10 [ 0.67, 1.81 ]
Total (95% CI)	173	183	+	100.0	1.10 [ 0.67, 1.81 ]
Total events: 27 (Trea	tment), 26 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=0.37 p=0.7				
			0.1 0.2 0.5 1 2 5 10		

#### Episiotomy for vaginal birth (Review)

## Analysis 03.07. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 07 Severe vaginal/perineal trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 07 Severe vaginal/perineal trauma (multiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	3/176	3/166	<b>_</b>	100.0	0.94 [ 0.19, 4.61 ]
Total (95% Cl)	176	166		100.0	0.94 [ 0.19, 4.61 ]
Total events: 3 (Treatme	ent), 3 (Control)				
Test for heterogeneity:	not applicable				
Test for overall effect z	=0.07 p=0.9				
			0.1 0.2 0.5 2 5 10		

### Analysis 03.08. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 08 Severe perineal trauma

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 08 Severe perineal trauma

Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
		11/1N	7578 CI	(70)	75% CI
Klein 1992	30/349	29/349	-	100.0	1.03 [ 0.63, 1.69 ]
Total (95% Cl)	349	349	+	100.0	1.03 [ 0.63, 1.69 ]
Total events: 30 (Trea	tment), 29 (Control)				
Test for heterogeneity	/: not applicable				
Test for overall effect	z=0.14 p=0.9				
			0.1 0.2 0.5 2 5 10		

### Analysis 03.09. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 09 Severe perineal trauma (primiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 09 Severe perineal trauma (primiparae) Relative Risk (Fixed) Weight Relative Risk (Fixed) Study Treatment Control n/N n/N 95% CI (%) 95% CI Klein 1992 27/173 26/183 100.0 1.10 [ 0.67, 1.81 ] Total (95% CI) 183 100.0 1.10 [ 0.67, 1.81 ] 173 Total events: 27 (Treatment), 26 (Control) Test for heterogeneity: not applicable Test for overall effect z=0.37 p=0.7 0.1 0.2 0.5 2 5 10

#### Episiotomy for vaginal birth (Review)

## Analysis 03.10. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 10 Severe perineal trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 10 Severe perineal trauma (multiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	3/176	3/166	<b>_</b>	100.0	0.94 [ 0.19, 4.61 ]
Total (95% CI)	176	166		100.0	0.94 [ 0.19, 4.61 ]
Total events: 3 (Treatn	nent), 3 (Control)				
Test for heterogeneity	: not applicable				
Test for overall effect :	z=0.07 p=0.9				
			<u> </u>		
			0.1 0.2 0.5 1 2 5 10		

## Analysis 03.11. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 11 Any posterior perineal trauma

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 11 Any posterior perineal trauma

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	282/349	305/349	-	100.0	0.92 [ 0.87, 0.99 ]
Total (95% CI)	349	349	•	100.0	0.92 [ 0.87, 0.99 ]
Total events: 282 (Trea	atment), 305 (Control)				
Test for heterogeneity:	: not applicable				
Test for overall effect z	z=2.37 p=0.02				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 03.12. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 12 Any posterior perineal trauma (primiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 12 Any posterior perineal trauma (primiparae) Relative Risk (Fixed) Relative Risk (Fixed) Study Treatment Control Weight 95% CI n/N n/N (%) 95% CI Klein 1992 160/173 171/183 100.0 0.99 [ 0.93, 1.05 ] Total (95% CI) 183 100.0 0.99 [ 0.93, 1.05 ] 173 Total events: 160 (Treatment), 171 (Control) Test for heterogeneity: not applicable Test for overall effect z=0.35 p=0.7 0.1 0.2 0.5 2 5 10

#### Episiotomy for vaginal birth (Review)

## Analysis 03.13. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 13 Any posterior perineal trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 13 Any posterior perineal trauma (multiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	122/176	134/166	+	100.0	0.86 [ 0.76, 0.97 ]
Total (95% CI)	176	166	•	100.0	0.86 [ 0.76, 0.97 ]
Total events: 122 (Tre	eatment), 134 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=2.42 p=0.02				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 03.14. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 14 Any anterior trauma

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 14 Any anterior trauma

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	52/349	37/349		100.0	1.41 [ 0.95, 2.09 ]
Total (95% CI)	349	349	•	100.0	1.41 [ 0.95, 2.09 ]
Total events: 52 (Treat	tment), 37 (Control)				
Test for heterogeneity	r: not applicable				
Test for overall effect :	z=1.69 p=0.09				
			0.1 0.2 0.5 1 2 5 10		

## Analysis 03.15. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 15 Any anterior trauma (primiparae)

Comparison: 03 RES	STRICTIVE versus ROUTI	NE EPISIOTOMY (midlin	e)		
Outcome: 15 Any a	nterior trauma (primipara	e)			
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Klein 1992	22/173	19/183		100.0	1.22 [ 0.69, 2.18 ]
Total (95% CI)	173	183	-	100.0	1.22 [ 0.69, 2.18 ]
Total events: 22 (Treat	tment), 19 (Control)				
Test for heterogeneity	/: not applicable				
Test for overall effect	z=0.69 p=0.5				
			0.1 0.2 0.5   2 5 10		

#### Episiotomy for vaginal birth (Review)

Review: Episiotomy for vaginal birth

## Analysis 03.16. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 16 Any anterior trauma (multiparae)

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 16 Any anterior trauma (multiparae)

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	30/176	18/166		100.0	1.57 [ 0.91, 2.71 ]
Total (95% CI)	176	166	-	100.0	1.57 [ 0.91, 2.71 ]
Total events: 30 (Trea	atment), 18 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=1.63 p=0.1				
			0.1 0.2 0.5 1 2 5 10		

### Analysis 03.17. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 17 Perineal bulging at 3 months

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 17 Perineal bulging at 3 months

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
Klein 1992	24/332	29/335		100.0	0.84 [ 0.50, 1.40 ]
Total (95% CI)	332	335	-	100.0	0.84 [ 0.50, 1.40 ]
Total events: 24 (Treat	ment), 29 (Control)				
Test for heterogeneity	: not applicable				
Test for overall effect :	z=0.68 p=0.5				
			0.1 0.2 0.5 2 5 10		

## Analysis 03.18. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 18 Urinary incontinence at 3 months

Comparison: 03 RE	STRICTIVE versus ROUTI	NE EPISIOTOMY (midlir	ne)		
Outcome: 18 Urina	ry incontinence at 3 mont	hs			
Study	Treatment	Control	Relative Risk (Fixed)	Weight	Relative Risk (Fixed)
	n/N	n/N	95% CI	(%)	95% CI
Klein 1992	57/337	60/337		100.0	0.95 [ 0.68, 1.32 ]
Total (95% CI)	337	337	+	100.0	0.95 [ 0.68, 1.32 ]
Total events: 57 (Trea	tment), 60 (Control)				
Test for heterogeneity	y: not applicable				
Test for overall effect	z=0.31 p=0.8				
			0.1 0.2 0.5 1 2 5 10		

#### Episiotomy for vaginal birth (Review)

Review: Episiotomy for vaginal birth

## Analysis 03.19. Comparison 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline), Outcome 19 Admission to special care baby unit

Review: Episiotomy for vaginal birth Comparison: 03 RESTRICTIVE versus ROUTINE EPISIOTOMY (midline) Outcome: 19 Admission to special care baby unit

Study	Treatment n/N	Control n/N	Relative Risk (Fixed) 95% Cl	Weight (%)	Relative Risk (Fixed) 95% Cl
× Klein 1992	0/349	0/349		0.0	Not estimable
Total (95% Cl)	349	349		0.0	Not estimable
Total events: 0 (Treatme	ent), 0 (Control)				
Test for heterogeneity: r	not applicable				
Test for overall effect: ne	ot applicable				

0.1 0.2 0.5 1 2 5 10