

EUROPEAN GUIDELINES ON PERINATAL CARE

PERIPARTUM CARE

EPISIOTOMY

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Summary of recommendations

1. Episiotomy should be performed by indication only, and not routinely (**Moderate quality evidence +++-; Strong recommendation**). Accepted indications for episiotomy are to shorten the second stage of labour when there is suspected fetal hypoxia (**Low quality evidence +-; Weak recommendation**); to prevent obstetric anal sphincter injury in vaginal operative deliveries, or when obstetric sphincter injury occurred in previous deliveries (**Moderate quality evidence +++-; Strong recommendation**).
2. Mediolateral or lateral episiotomy technique should be used (**Moderate quality evidence +++-; Strong recommendation**). Labour ward staff should be offered regular training in correct episiotomy techniques (**Moderate quality evidence +++-; Strong recommendation**).
3. Pain relief needs to be considered before episiotomy is performed, and epidural analgesia may be insufficient. The perineal skin needs to be tested for pain before an episiotomy is performed, even when an epidural is in place. Local anesthetics or pudendal block need to be considered as isolated or additional pain relief methods (**Low quality evidence +-; Strong recommendation**).
4. After childbirth the perineum should be carefully inspected, and the anal sphincter palpated to identify possible injury (**Moderate quality evidence +++-; Strong recommendation**). Primary suturing immediately after childbirth should be offered and a continuous suturing technique should be used when repairing an uncomplicated episiotomy (**High quality evidence ++++; Strong recommendation**).

Introduction

Episiotomy is defined as a surgical incision in the perineum during the final moments of the second stage of labour, to enlarge the vaginal orifice. It is one of the most common surgical procedures used during childbirth. Episiotomy increases the diameter of the vaginal outlet and is traditionally used to shorten expulsion time during the second stage of labour or to prevent severe perineal tears.

Episiotomy rates vary substantially throughout the world, with reports ranging between 1% and over 90%. This variation may be attributed to enrooted hospital practices and varying levels of knowledge and understanding surrounding episiotomy. Despite recommendations that episiotomy should not be routinely performed, some countries still consider nulliparity alone as an indication, resulting in more than 90% rates for first time mothers (1,2). Since 1996, the World Health Organization (WHO) has recommended an episiotomy rate that does not exceed 10%, and its use has declined in many countries (2–4). Conversely, increasing rates of obstetric anal sphincter injuries (OASIS) have been reported in some centers during the same time-period (2–5).

Few randomized controlled trials (RCT) have evaluated the benefits and risks of episiotomy. It is also important to note that no RCT has tried to compare the effect of episiotomy with no episiotomy. Only selective use of episiotomy has been compared to its routine use (6). The main results of these trials show that selective use of episiotomy does not increase the risk of OASIS when compared with routine use. The frequencies of restrictive episiotomy (8 to 57%) and routine episiotomy (47 to 93%) in these studies are variable and overlapping, making it difficult to compare the results. Many of these trials had a low number of participants and were underpowered to assess the risk of OASIS (6). In the largest RCT, involving 1555 participants, episiotomy rate in the restrictive group was 30% and in the routine use group 83% (7). Therefore, most recommendations regarding use of episiotomy are mainly based on observational studies. When selective episiotomy policies are implemented, its use is restricted to women with a high-risk of OASIS, and low-risk women do not receive it. This approach generates confounding by indication, whereby episiotomy may result as a risk factor for OASIS. An analysis that is adjusted for other relevant risk factors always needs to be considered for this purpose.

Few studies have assessed pain experience associated with different degrees of perineal injury and episiotomy (8,9). Women with intact perineum or first-degree perineal lacerations report less pain than women with second, third, and fourth-degree lacerations or episiotomy. Women with episiotomy or second-degree perineal lacerations reported equal pain experience on the first day after birth. However, 5 days after birth women with episiotomy reported more pain during rest and when sitting than those with second degree perineal lacerations. After 7 weeks most women reported resolved pain, and there was no difference between those with episiotomy and second-degree perineal lacerations (9). Similarly, coitus resumption after delivery is not different between women with episiotomy and those with second-degree perineal lacerations. Equal results are reported one year after delivery. Compared with episiotomy or second degree injury, women with OASIS report the most severe pain in the days following delivery, as well as delayed coitus resumption (8). Reported perineal wound infection rates vary from 0.3% to 10% (10). One study reported that 5% of women with episiotomy sought medical help, and only 1.6% were treated with antibiotics (11). Most studies report perineal wound dehiscence rates in general, including women that have had episiotomy and spontaneous lacerations, and numbers vary between 0.4% and 13% (12–14).

Recommendations

1. Indication for episiotomy

1. Episiotomy should only be performed by indication, and not routinely (**Moderate quality evidence; Strong recommendation +++**). Accepted indications for episiotomy are to shorten the second stage of labour when there is suspected fetal hypoxia (**Low quality evidence +-; Weak recommendation**); to prevent obstetric anal sphincter injury in vaginal operative deliveries, or when obstetric sphincter injury occurred in previous deliveries (**Moderate quality evidence +++; Strong recommendation**)

Evidence from large observational studies show that mediolateral or lateral episiotomy performed by indication can reduce the incidence of OASIS, both in spontaneous vaginal birth and in instrumental delivery (15,16). These findings are also reported in systematic reviews (17,18).

The most important risk factors for OASIS are nulliparity, large fetal size and forceps or vacuum assisted vaginal delivery (5,15,16,19). Shoulder dystocia, occiput posterior presentation and prolonged second stage also increase the risk of OASIS (5,16). Simultaneous multiple risk factors increase the risk of OASIS (20). Although increasing fetal weight increases the risk of OASIS linearly, it is still unclear whether a predefined cut-off for fetal weight estimation should influence the use of episiotomy (15,16,21). Observational studies evaluating the use of episiotomy for forceps delivery show a 70-87% reduction in the incidence of OASIS when mediolateral or lateral episiotomy is performed, when compared with no episiotomy (5,22). Similarly, in large observational studies the use of mediolateral or lateral episiotomy during vacuum delivery reduces the incidence of OASIS by 40-86% (5,17,18,22,23). A large population-based cohort study reported that in women with previous OASIS, episiotomy significantly reduces the risk for repeated OASIS (24). There is also robust evidence that episiotomy does not prevent shoulder dystocia (25,26).

It is challenging to define clear indications for the use of episiotomy, many indications are based on traditions or clinical experience. Episiotomy is traditionally used to shorten the second stage of labour also when there is suspected fetal hypoxia or when there are signs of imminent perineal laceration. There is, however, no robust scientific evidence for these indications, other than descriptive studies confirming the use retrospectively; a study evaluating 2.5 million deliveries in Canada reported 25% of episiotomies in deliveries where fetal hypoxia was suspected versus 11% when it was absent (3).

It is important to inform the delivering woman about the need and objective for all obstetric procedures or interventions. WHO recommends that a consent from the delivering woman should be obtained before vaginal exploration during labour (27). However, this does not necessarily mean written informed consent, and it may also be challenging to ask for oral informed consent in emergency situations, when decisions must be taken without delay, and there is no time to explain risks and benefits in detail. These situations are best managed by providing information on the risks and benefits of episiotomy during pregnancy or earlier in labour.

2. Episiotomy types and technique

2. Mediolateral or lateral episiotomy technique should be used (**Moderate quality evidence +++-; Strong recommendation**). Labour ward staff should be offered regular training in correct episiotomy techniques (**Moderate quality evidence +++-; Strong recommendation**).

The main types of episiotomy described in medical textbooks are median, mediolateral, and lateral (Figure1) (28). The definitions of mediolateral and lateral episiotomy sometimes differ between publications (29,30). Midline episiotomy increases the risk of OASIS, and is therefore not recommended (21,31). Mediolateral episiotomy begins in the vaginal fourchette and is directed laterally and downwards. Lateral episiotomy begins 1 or 2 cm away from the vaginal fourchette and is also directed downwards towards the ischial tuberosity (28,32). The optimal cutting angle for mediolateral and lateral episiotomy is of about 60° from the midline, measured when the head is crowning (32). When episiotomy is performed correctly, the bulbospongiosus and superficial transverse perineal muscles are cut.

Mediolateral and lateral techniques are associated with a lower risk of OASIS than median episiotomies (21,31). A study comparing pain perception two days after delivery showed no differences between women with mediolateral, lateral or median episiotomies (33). The 60° cutting angle may be challenging to accomplish, and non-optimal incisions are common (33–37). A narrower cutting angle that is too close to the anal sphincter muscle may increase the risk of OASIS (38,39). Episiotomy scissors that have a 60° guide have been shown to increase the quality of the episiotomy angle (40,41). Regular training for correct technique should be offered to labour ward staff, and regular audits on episiotomy quality are an important way to promote the correct use of episiotomy (11,33,36,42,43).

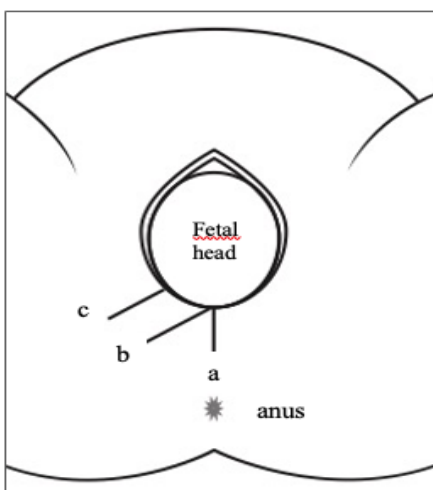


Figure 1
Median episiotomy (a)
Mediolateral episiotomy (b)
Lateral episiotomy (c)

Illustration: Olivia Østerberg

3. Pain relief

3. Pain relief needs to be considered before episiotomy is performed, and epidural analgesia may be insufficient. The perineal skin needs to be tested for pain before an episiotomy is performed, even when an epidural is in place. Local anesthetics or pudendal block need to be considered as isolated or additional pain relief methods (**Low quality evidence ++-; Strong recommendation**).

Episiotomy is usually painful, and as in all types of surgery, adequate pain relief needs to be strongly considered before it is performed. Epidural analgesia may not always be sufficient to control pain arising from an episiotomy and for this reason, the perineal skin should always be tested for pain before an episiotomy is performed. Local anesthetic or pudendal block should be considered, even when an epidural is in place.

4. Diagnostics and management

4. After childbirth the perineum should be carefully inspected, and the anal sphincter palpated to identify possible injury (**Moderate quality evidence +++-; Strong recommendation**). Primary suturing shortly after childbirth should be offered and a continuous suturing technique should be used when repairing an uncomplicated episiotomy (**High quality evidence +++-; Strong recommendation**).

Careful and systematic examination of the pelvic floor and an anal exploration to evaluate the integrity of the anal sphincter form part of routine care after vaginal delivery. Women should be informed why this examination is important (44). Women with OASIS have an increased risk for anal incontinence, particularly when it is not detected and repaired immediately after birth (45–47). An RCT showed that 8 to 12 hours delayed OASIS repair did not increase the risk of anal incontinence or other pelvic floor symptoms. However such delay is an acceptable alternative when surgical expertise is not available, but should not be routinely recommended (48).

Primary repair of episiotomy with a continuous suturing method is recommended. A Cochrane review showed that continuous suturing was associated with less pain up to 10 days after childbirth, less suturing material and shorter time to be performed, as well as reduced use of postpartum analgesia than when interrupted suturing methods were used. There was a reduced need for suture removal among women with continuous suturing compared with women with interrupted sutures, but no difference was shown in long term pain experience or need for re-suturing (49). It is still unclear whether it leads to reduced risk of infection.

Catgut may increase short term pain compared with synthetic sutures. Evidence showed no differences between standard and rapidly absorbing synthetic sutures (50).

Episiotomy can be painful during the first 1-3 days after birth, but most studies show resolved pain after a longer follow-up (10 days to 3 months) (8,9,11,33). Adequate pain relief should be offered to women with an episiotomy during the first days after birth. Painkillers such as paracetamol and non-steroid inflammatory drugs (diclofenac or ibuprofen) can help to relieve pain and are safe to use while women are breastfeeding. Acetylsalicylic acid is not recommended as it can be passed through breast milk (51,52).

Methodology used in the development of this guideline

The writing group conducted searches in PubMed, Cochrane Library, Ovid, and UpToDate for articles related to this topic. These were limited to studies involving humans and articles published in English between January 1988 and December 2020. The searches were completed manually by consulting the reference list in the identified publications and other guidelines related to the topic. The writing group synthesized the evidence and elaborated the first draft of the manuscript, proposing recommendations according to the Grading of

Recommendations Assessment, Development and Evaluation (GRADE) methodology. The guideline panel members were asked to comment and modify the text in three successive interactions until a final version of the manuscript was reached. All panel members who agreed with the final version and gave their consent for co-authorship are listed in the document.

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