## WHO recommendation on episiotomy policy

extranet.who.int/rhl/topics/preconception-pregnancy-childbirth-and-postpartum-care/care-during-childbirth/care-during-labour-2nd-stage/who-recommendation-episiotomy-policy-0



#### Recommendation

Routine or liberal use of episiotomy is not recommended for women undergoing spontaneous vaginal birth.

(Not recommended)

## **Publication history**

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#### **Remarks**

Although the review evidence on comparative effects of episiotomy policies was
presented as selective/restrictive versus routine/liberal use of episiotomy, due to the
beneficial effects of selective/ restrictive compared with routine/liberal episiotomy
policy, the lack of evidence on the effectiveness of episiotomy in general, and the need
to discourage the excessive use of routine episiotomy across all settings, the GDG felt
that it was important to emphasize that routine/liberal use of episiotomy is "not
recommended", rather than recommending the selective/restrictive use of
episiotomy.

- The GDG acknowledged that, at the present time, there is no evidence corroborating the need for any episiotomy in routine care, and an "acceptable" rate of episiotomy is difficult to determine. The role of episiotomy in obstetric emergencies, such as fetal distress requiring instrumental vaginal birth, remains to be established.
- If an episiotomy is performed, effective local anaesthesia and the woman's informed consent is essential. The preferred technique is a medio-lateral incision, as midline incisions are associated with a higher risk of complex obstetric anal sphincter injury (OASI). A continuous suturing technique is preferred to interrupted suturing (1).
- Episiotomies do not warrant the routine use of prophylactic antibiotics, as general infection control measures should be respected at all times (2).

## **Background**

Globally, approximately 140 million births occur every year (3). The majority of these are vaginal births among pregnant women with no identified risk factors for complications, either for themselves or their babies, at the onset of labour (4, 5). However, in situations where complications arise during labour, the risk of serious morbidity and death increases for both the woman and baby. Over a third of maternal deaths and a substantial proportion of pregnancy-related life-threatening conditions are attributed to complications that arise during labour, childbirth or the immediate postpartum period, often as result of haemorrhage, obstructed labour or sepsis (6, 7). Similarly, approximately half of all stillbirths and a quarter of neonatal deaths result from complications during labour and childbirth (8). The burden of maternal and perinatal deaths is disproportionately higher in low- and middle-income countries (LMICs) compared to high-income countries (HICs). Therefore, improving the quality of care around the time of birth, especially in LMICs, has been identified as the most impactful strategy for reducing stillbirths, maternal and newborn deaths, compared with antenatal or postpartum care strategies (9).

Over the last two decades, women have been encouraged to give birth in health care facilities to ensure access to skilled health care professionals and timely referral should the need for additional care arise. However, accessing labour and childbirth care in health care facilities may not guarantee good quality care. Disrespectful and undignified care is prevalent in many facility settings globally, particularly for underprivileged populations, and this not only violates their human rights but is also a significant barrier to accessing intrapartum care services (10). In addition, the prevailing model of intrapartum care in many parts of the world, which enables the health care provider to control the birthing process, may expose apparently healthy pregnant women to unnecessary medical interventions that interfere with the physiological process of childbirth.

As highlighted in the World Health Organization (WHO) framework for improving quality of care for pregnant women during childbirth, experience of care is as important as clinical care provision in achieving the desired person-centred outcomes (11).

This up-to-date, comprehensive and consolidated guideline on intrapartum care for healthy pregnant women and their babies brings together new and existing WHO recommendations that, when delivered as a package of care, will ensure good quality and evidence-based care in all country settings. In addition to establishing essential clinical and non-clinical practices that support a positive childbirth experience, the guideline highlights unnecessary, non-evidence-based and potentially harmful intrapartum care practices that weaken women's innate childbirth capabilities, waste resources and reduce equity.

To ensure that each recommendation is correctly understood and applied in practice, the context of all context-specific recommendations is clearly stated within each recommendation, and the contributing experts provided additional remarks where needed.

In accordance with WHO guideline development standards, these recommendations will be reviewed and updated following the identification of new evidence, with major reviews and updates at least every five years.

#### **Methods**

These recommendations were developed using standard operating procedures in accordance with the process described in the WHO handbook for guideline development (12). Briefly, these procedures include: (i) identification of priority questions and outcomes; (ii) evidence retrieval and synthesis; (iii) assessment of the evidence; (iv) formulation of the recommendations; and (v) planning for implementation, dissemination, impact evaluation and updating of the guideline.

The quality of the scientific evidence underpinning the recommendations was graded using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) (13) and Confidence in the Evidence from Reviews of Qualitative research (CERQual) (14) approaches, for quantitative and qualitative evidence, respectively. Up-to-date systematic reviews were used to prepare evidence profiles for priority questions.

The GRADE evidence-to-decision (EtD) framework (15), an evidence-to-decision tool that includes intervention effects, values, resources, equity, acceptability and feasibility criteria, was used to guide the formulation of recommendations by the Guideline Development Group (GDG) – an international group of experts assembled for the purpose of developing this guideline – at two technical consultations in May and September 2017. In addition, relevant recommendations from existing WHO guidelines approved by the Guidelines Review Committee (GRC) were systematically identified and integrated into this guideline for the purpose of providing a comprehensive document for end-users.

Further information on procedures for developing this recommendation are available <u>here.</u>

#### **Recommendation question**

For this recommendation, we aimed to answer the following questions:

For women in the second stage of labour (P), does a policy of selective/restrictive use of episiotomy (I), compared with a policy of routine or liberal use of episiotomy (C), improve birth outcomes (O)? no perineal technique or usual practice (C), improve birth outcomes (O)?

#### **Evidence summary**

The evidence was derived from a Cochrane systematic review that included 12 RCTs (16).

In 11 trials, participants were women in labour for whom a vaginal birth was anticipated. One trial involved women undergoing instrumental vaginal birth; data from this trial were analysed separately in the review and were not considered for this recommendation. The 11 trials relevant to this recommendation were conducted in Argentina (2 trials), Canada, Colombia, Germany, Ireland, Malaysia, Pakistan, Saudi Arabia, Spain and the United Kingdom (1 trial each). Seven trials included nulliparous women only, and four trials included both nulliparous and parous women. Differences in episiotomy rates between the study groups in the trials varied from 21% to 91%, with three trials reporting a difference of less than 30%. In the selective episiotomy groups, episiotomy rates ranged from 8% to 59% (median 32%), and in the routine or liberal episiotomy groups they ranged from 51% to 100% (median 83%).

# Comparison: Policy of selective/restrictive compared with routine or liberal use of episiotomy

#### **Maternal outcomes**

Short-term morbidity: Low-certainty evidence suggests that a policy of selective/restrictive episiotomy may reduce severe perineal/vaginal trauma (mainly third- and fourth-degree tears) compared with routine or liberal episiotomy (11 trials, 6177 women, RR 0.70, 95% CI 0.52–0.94). The impact increased when only the trials with a larger than 30% difference in episiotomy rate between study arms were included (8 trials, 4877 women, RR 0.55, 95% CI 0.38–0.81; moderate-certainty evidence). Subgroup analysis by parity suggests that the episiotomy policy might not make a difference to perineal/vaginal trauma in multigravid women, but the evidence is very uncertain. A selective/restrictive episiotomy policy may reduce the need for perineal suturing (excluding episiotomy repair) (6 trials, 4333 women, RR 0.68, 95% CI 0.58–0.78); however, the data in some trials may have included episiotomy repair, making the evidence uncertain. Low-certainty evidence suggests that selective/ restrictive episiotomy may have little or no effect on perineal infection (3 trials, 1467 women, RR 0.90, 95% CI 0.45–1.82). Evidence on relative blood loss at birth is very uncertain.

Long-term morbidity: For long-term morbidity at 6 months or more after childbirth, low-certainty evidence suggests there may be little or no effect of selective/restrictive versus

routine or liberal episiotomy on dyspareunia (pain during intercourse) (3 trials, 1107 women, RR 1.14, 95% CI 0.84–1.53). Evidence on other long-term morbidity is sparse and very uncertain (urinary incontinence, genital prolapse), or lacking (faecal incontinence, sexual dysfunction).

Duration of the second stage of labour: The review did not report this outcome.

*Use of pain relief options:* Use of pain relief options was not reported in the review but low-certainty evidence suggests there may be little or no difference between selective/restrictive and routine or liberal episiotomy on perineal pain 10 days after birth (1 trial, 2587 women, RR 1.00, 95% CI 0.78–1.27).

*Birth experience:* According to the review, outcomes related to maternal birth experience, such as maternal satisfaction, were not reported in the trials.

#### **Fetal and neonatal outcomes**

*Perinatal hypoxia-ischaemia:* Evidence on low Apgar scores (<7 at 5 minutes) is of very low certainty, mainly because the sample size is small (2 trials, 511 babies) and no events occurred in either comparison group.

Birth trauma: Birth trauma was not reported in the review.

#### **Additional considerations**

The evidence on severe perineal/vaginal trauma was derived mainly from trials employing a mediolateral incision technique. Two trials involving 1143 women employed a midline episiotomy incision and statistical tests employed in the review suggest that the overall effect on perineal/vaginal trauma for this subgroup of trials is not different from mediolateral incisions. However, the individual trials of midline incisions produced inconsistent results. In addition, severe perineal/vaginal trauma occurred more frequently in the trials of midline incisions than in trials of medio-lateral incisions (106/1143 [9%] vs 58/4834 [1%], respectively), suggesting that mediolateral incisions are safer than midline incisions. The review did not evaluate any other outcomes according to the type of incision. At the present time, there is no evidence corroborating the need for episiotomy in any situation. One small clinical trial (237 women) has published findings on the effects of selective/ restrictive use of episiotomy compared with no episiotomy and reported no difference with respect to any maternal and perinatal outcomes (17). There is an ongoing trial of selective/restrictive episiotomy compared with no episiotomy, with a target sample size of 6006 women.

#### **Values**

Findings from a review of qualitative studies looking at what matters to women during intrapartum care indicate that most women want a normal childbirth with good outcomes for mother and baby, but acknowledge that medical intervention may sometimes be necessary (high confidence in the evidence) (18). Women are scared of interventions like episiotomy (high confidence in the evidence), so they will invariably feel more anxious when they are introduced. However, in certain countries (e.g. Brazil) where episiotomy is liberally practised, there may be an expectation that its use will facilitate an easier birth (low confidence in the evidence). When an episiotomy is indicated, women would like to receive relevant information about it, and for it to be performed by technically competent health care providers who are sensitive to their needs (high confidence in the evidence).

Additional considerations: Given that a policy of selective/restrictive use of episiotomy is associated with less maternal morbidity than liberal use of episiotomy, it is unlikely that there is important uncertainty or variability in how much women value the outcomes related to episiotomy policies, as it stands to reason that most women would prefer not to sustain severe perineal or vaginal trauma.

#### Resources

No review evidence on the relative cost and cost-effectiveness of these policies was found. However, a 2002 study from Argentina found that, for each low-risk vaginal birth, there was a potential average reduction in provider cost of US\$ 20.21 and US\$ 11.63, in two Argentinian provinces (19). This seems plausible, based on the effects evidence, as fewer procedures are performed and maternal morbidity might be reduced.

Additional considerations: Fewer procedures means less provider time associated with episiotomy repair. This might be an important cost saving. Findings from a Cochrane review evaluating different episiotomy repair methods suggest that the average time required to suture an episiotomy with continuous or interrupted sutures is 21 and 25 minutes, respectively (20). Other costs, due to medical supplies (suture materials, anaesthetic agents, analgesics, etc.) and equipment for episiotomy repair, and those associated with wound complications, would logically also be lower with selective/restrictive compared with routine or liberal episiotomy policies. Out-of-pocket costs to individual women might also be lower with selective/restrictive compared with routine or liberal episiotomy in settings where women incur additional birth costs for births in which episiotomy has been performed (21). Routine or liberal use of episiotomy may be linked to over-medicalization based on ensuring financial profits for practitioners.

## **Equity**

No direct evidence of the impact of the different episiotomy policies on equity was found. However, indirect evidence from a review of barriers and facilitators to facility-based birth indicates that many women have a "fear of cutting" (caesarean section and episiotomy) by

health workers and this is probably a significant barrier to the uptake of facility-based birth by disadvantaged women in LMICs (moderate confidence in the evidence) (10).

#### Additional considerations

WHO's 2015 State of inequality report indicates that women who are poor, least educated and residing in rural areas have lower health intervention coverage and worse health outcomes than the more advantaged women (22). Therefore, by reducing the "fear of cutting", with a clearly communicated policy of selective/restrictive episiotomy, the intervention might have a positive impact on health equity by increasing facility-based birth coverage among disadvantaged women.

A review of evidence-based practices suggests that some of the highest episiotomy rates occur in middle-income countries (23). This overuse might be a symptom of the obstetric transition with medicalization and more interventionist birth practices increasing with obstetric transition stage (24, 25). Obstetric transition is the concept of a secular trend of countries as they shift from patterns of high maternal mortality to low maternal mortality through reductions in direct obstetric causes of mortality.

Significant within-country differences in episiotomy coverage also exist (26). For example, in Brazil, public health care facilities have been reported to employ excessive use of episiotomy compared with private-sector facilities (27). Therefore, employing a restrictive policy of episiotomy in these settings could differentially improve the childbirth experience of disadvantaged women relative to more advantaged women, with a positive impact on equity. Women in LMIC settings are often not informed about the risks of and reasons for interventions and are often not asked to give informed consent (23, 28–29). Non-consented, invasive procedures are prevalent in LMICs and in the treatment of disadvantaged pregnant women globally. Therefore, clinical protocols and provider training on episiotomy should emphasize the need for informed consent, to ensure that women's human rights are respected.

## **Acceptability**

In a qualitative systematic review exploring women's and providers' views and experiences of intrapartum care, women felt they were poorly informed about the reasons for performing an episiotomy and were rarely asked for their permission (high confidence in the evidence) (30). Review findings suggest that women preferred to minimize the level of pain experienced from cutting and stitching, as well as the levels of discomfort experienced following episiotomy (high confidence in the evidence). In addition, they may be ill-prepared for the pain associated with the procedure or the potential short- and long-term consequences (perineal discomfort, difficulty performing normal day-to-day activities, aesthetic deformities, effect on sex life) (low confidence in the evidence). In some instances, women felt that their concerns were ignored or dismissed by staff, whom they perceived to

be rude and insensitive (low confidence in the evidence). The review findings also suggest that in certain countries (e.g. Brazil) women might hold the belief that an episiotomy facilitates a smoother birth (shorter labour, less pain) (low confidence in the evidence). This may be based on an established cultural acceptance of the procedure, largely generated by health care providers (low confidence in the evidence).

Review findings also showed that staff were generally aware of the recommendations for selective/restrictive use of episiotomy, but in some regions (South America, the Middle East, South-East Asia) they were reluctant to change established behaviour, particularly for primigravid women, where episiotomy was practised routinely (high confidence in the evidence). For primigravid women in these contexts, staff felt that an episiotomy was safer, more easily managed (by them) than a tear, and facilitated an "easier" birth (for them) (high confidence in the evidence).

Additional considerations: Reluctance to change established behaviour in some settings might be financially motivated: a study of health care provider practice in Cambodia found that providers performed episiotomies to justify charging women a higher fee (21). From the above evidence, it seems that most women would find selective/ restrictive episiotomy more acceptable than routine or liberal episiotomy. Acceptability among providers, in LMIC settings where episiotomy is routinely practised, might vary.

## **Feasibility**

Findings from a qualitative systematic review exploring women's and providers views and experiences of intrapartum care suggest that a practice of selective/restrictive episiotomy would be easier to implement, especially in settings where resources may be limited (high confidence in the evidence) (30). However, in certain contexts, staff may have limited access to current research evidence (because of resource constraints) and subsequently have no clear policies or protocols to guide practice in this area (high confidence in the evidence). As a result, clinical practice is based on established, hierarchical, unwritten "rules" and/ or competence in performing the procedure (high confidence in the evidence).

Additional considerations: Findings from a cluster RCT conducted in Mexico and Thailand of a multifaceted educational strategy to promote the use of the WHO Reproductive Health Library (RHL) on obstetric practices, including promotion of selective/restrictive over routine or liberal episiotomy, showed that implementing selective/restrictive episiotomy was feasible in Thailand and led to a reduction in episiotomy rates (31). Shifting from a policy of routine or liberal to selective/restrictive use of episiotomy will require a change in organization culture, training, monitoring and continuous clinical practice audit.

Further information and considerations related to this recommendation can be found in the WHO guidelines, available at:

http://apps.who.int/iris/bitstream/10665/250796/8/9789241549912-websupplementeng.pdf?ua=1

http://apps.who.int/iris/bitstream/handle/10665/260178/9789241550215-eng.pdf;isessionid=7E800B590A164DC7FC879E73B480D6FC?sequence=1

## Implementation considerations

The successful introduction of evidence-based policies related to intrapartum care into national programmes and health care services depends on well-planned and participatory consensus-driven processes of adaptation and implementation. These processes may include the development or revision of national guidelines or protocols based on this recommendation.

The recommendation should be adapted into locally-appropriate documents and tools that are able to meet the specific needs of each country and health service. Modifications to the recommendation, where necessary, should be justified in an explicit and transparent manner.

An enabling environment should be created for the use of this recommendation, including changes in the behaviour of health care practitioners to enable the use of evidence-based practices.

Local professional societies may play important roles in this process and an all-inclusive and participatory process should be encouraged.

## Health policy considerations

- A firm government commitment to increasing coverage of maternity care for all
  pregnant women giving birth in health care facilities is needed, irrespective of social,
  economic, ethnic, racial or other factors. National support must be secured for the
  whole package of recommendations, not just for specific components.
- To set the policy agenda, to secure broad anchoring and to ensure progress in policy formulation and decision-making, representatives of training facilities and professional societies should be included in participatory processes at all stages.
- To facilitate negotiations and planning, situation-specific information on the expected impact of the new intrapartum care model on service users, providers and costs should be compiled and disseminated.
- To be able to adequately ensure access for all women to quality maternity care, in the context of universal health coverage (UHC), strategies for raising public funding for health care will need revision. In low-income countries, donors could play a significant role in scaling up implementation.

- Long-term planning is needed for resource generation and budget allocation to address the shortage of skilled midwives, to improve facility infrastructure and referral pathways, and to strengthen and sustain good-quality maternity services.
- Introduction of the model should involve training institutions and professional bodies so that preservice and in-service training curricula can be updated as quickly and smoothly as possible.
- Standardized labour monitoring tools, including a revised partograph, will need to be developed to ensure that all health care providers (i) understand the key concepts around what constitutes normal and abnormal labour and labour progress, and the appropriate support required, and (ii) apply the standardized tools.
- The national Essential Medicines Lists will need to be updated (e.g. to include medicines to be available for pain relief during labour).
- Development or revision of national guidelines and/or facility-based protocols based on the WHO intrapartum care model is needed. For health care facilities without availability of caesarean section, context- or situation-specific guidance will need to be developed (e.g. taking into account travel time to the higher-level facility) to ensure timely and appropriate referral and transfer to a higher level of care if intrapartum complications develop.
- Good-quality supervision, communication and transport links between primary and higher-level facilities need to be established to ensure that referral pathways are efficient.
- Strategies will need to be devised to improve supply chain management according to local requirements, such as developing protocols for obtaining and maintaining stock of supplies.
- Consideration should be given to care provision at alternative maternity care facilities
   (e.g. on-site midwife-led birthing units) to facilitate the WHO intrapartum care model
   and reduce exposure of healthy pregnant women to unnecessary interventions
   prevalent in higher-level facilities.
- Behaviour change strategies aimed at health care providers and other stakeholders could be required in settings where non-evidence-based intrapartum care practices are entrenched.
- Successful implementation strategies should be documented and shared as examples
  of best practice for other implementers. User-level considerations

Community-level sensitization activities should be undertaken to disseminate information about:

- respectful maternity care (RMC) as a fundamental human right of pregnant women and babies in facilities;
- facility-based practices that lead to improvements in women's childbirth experience (e.g. RMC, labour and birth companionship, effective communication, choice of birth position, choice of pain relief method);

• and unnecessary birth practices that are not recommended for healthy pregnant women and that are no longer practised in facilities (e.g. liberal use of episiotomy, fundal pressure, routine amniotomy).

## **Research implications**

The GDG did not identify any priority question related to this recommendation.

#### **Related links**

WHO recommendations on intrapartum care for a positive childbirth experience

(2018) - full document and evidence tables

Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors

Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice

WHO Programmes: Sexual and Reproductive health

#### Maternal Health

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