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RESEARCH ARTICLE

Episiotomy in Modern Obstetrics OR *Episiotomy: It's Time to Stop Cutting!*

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ABSTRACT

Episiotomy consists of incising the perineum to widen the birth canal. It was historically introduced into medical practice in the 18th century. The purpose of the episiotomy would be to reduce the probability of severe perineal lacerations, while the association with the forceps would minimize the risk of fetal trauma and hypoxia, which was accepted for a long time as an indisputable truth. The use of episiotomy spread enormously after the recommendations of famous obstetricians and began to be used on a larger scale in several countries since the 20th century, although there was no reliable scientific evidence of its effectiveness and safety. In the last decades well-conducted clinical studies on the subject were published and the routine use of episiotomy was questioned. Despite of methodological limitations, the first studies contributed to reduce its practice, including the important participation of women's movements and active childbirth campaigns arguing about the episiotomy use. Current evidence shows that routine episiotomy is not supported in clinical practice and a recent World Health Organization (WHO) guideline strongly recommends against it. However, a lack of knowledge remains as the role of episiotomy in obstetric emergencies and, considering the present evidence, what would be the real benefits for performing an episiotomy. This review aims to show the current state of the art running through the historical background of episiotomy and techniques, analyzing its use worldwide in obstetric practice and discussing the published studies concerning the necessity, the effectiveness, and the consequences of the procedure. Ultimately, regarding the accumulated evidence shown, the authors express their conclusions about the use of episiotomy in obstetric modern practice and the possible strategies to reduce its rates.

Key words: Episiotomy; Episiotomy technique; Pregnancy; Labor

INTRODUCTION

Episiotomy is a surgical incision of the vagina and perineum carried out by a skilled birth attendant to enlarge the vaginal opening.[1] Conceived as a preventive measure, the purpose of routine episiotomy would be to enable the baby to pass through the route and the surgical cut should prevent serious tears and reduce the probability of severe perineal lacerations.[2]

As the childbirth moved from home practice to hospital settings, a change in attendance from midwives to physicians took place.[3] Renowned obstetricians started promoting the routine episiotomy and this surgical procedure was extensively adopted and larger performed worldwide, although its benefits weren´t clearly demonstrated by scientific evidence at that time.[4]

Many aspects about the episiotomy started to be analyzed. The lack of evidence of its effectiveness as well the considerable risks associated with the procedure moved the scientific community to question the indications real necessity of routine episiotomy.[4] Current evidence shows that routine episiotomy is not supported in clinical practice, reinforced by American College of Obstetricians and Gynecology (ACOG) protocol and the World Health Organization (WHO) Intrapartum guideline care for a positive childbirth experience, that strongly recommends against it.[5,6] Nevertheless, the procedure continues to be used so far and is still one of the most performed obstetric procedures worldwide, as numbers demonstrates.[4]

In this narrative review article, the authors carefully identified and synthesized relevant literature about episiotomy practice. The main objective is to show the current state of the art running through the historical background of episiotomy and its techniques, offering an updated view on the factors related to the evolution of this this surgical procedure. Analyzing routine episiotomy use worldwide, the authors discussed the published studies concerning the necessity, the effectiveness, and consequences for the patients. This review, regarding the accumulated evidence, and the author's conclusions also would fit a serious reflection about episiotomy use in current obstetric practice that could be summed up in one sentence: "*Don't do anything, sit down*".

"These pages have not been written for those who lay them aside saying or thinking, 'Much ado about a perineal tear!' They will have to come to terms with their own consciences" (F. Ritgen, 1855)

History

Figure 1. Sir Fielding Ould

Episiotomy consists of incising the perineum to widen the birth canal, and its practice was historically introduced in the 18th century (1742) by Sir Fielding Ould[7], an Irish obstetrician, to help fetal head delivery in difficult births.[4] In 1847, Dubois suggested performing an oblique incision in the perineum, modernly known as mediolateral episiotomy (**Figure 2**). However, the procedure did not gain popularity in the 19th century due to the lack of availability of anesthesia and high rates of infection.[8]

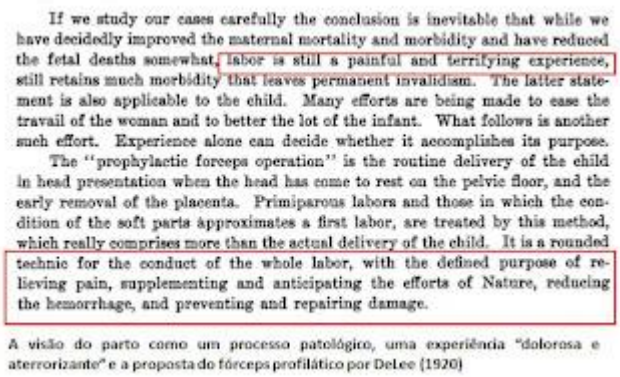
Figure 2. Mediolateral episiotomy

It was only in the 20th century that episiotomy began to be used on a larger scale in several countries, especially in the United States of America and Latin American countries, including Brazil. It was the time when the perception of birth as a normal process requiring minimal intervention was replaced by the concept of childbirth as a pathological process, requiring medical intervention to prevent maternal and fetal harm.[4]

The use of episiotomy spread enormously after the recommendations of famous obstetricians, such as Pomeroy [9] and DeLee.[10] (**Figure 3**).

Figure 3. De Lee

The latter, in the 1920s, launched a treatise (The Prophylactic Forceps Operation) in which he recommended systematic episiotomy and relief forceps for all primiparous women.[10] Evidently, this recommendation was not based on any comparative study, either a randomized clinical trial or even an observational study, and only reflected the prevailing paradigm at the time, that the female body was essentially defective and that interventions were necessary for childbirth to take place in a "safe" way, under obligatory medical care.[11] From this period dates from the conception, widespread in many countries and among several health professionals to this day, that episiotomy would be necessary to preserve the integrity of the pelvic floor, restoring the integrity of the pelvic floor, vaginal anatomy and pelvic musculature to the prepartum condition.[10] (**Figure** 4).



If we study our cases carefully the conclusion is inevitable that while we have decidedly improved the maternal mortality and morbidity and have reduced the fetal deaths somewhat, labor is still a painful and terrifying experience, still retains much morbidity that leaves permanent invalidism. The latter statement is also applicable to the child. Many efforts are being made to ease the travail of the woman and to better the lot of the infant. What follows is another such effort. Experience alone can decide whether it accomplishes its purpose.

The "prophylactic forceps operation" is the routine delivery of the child in head presentation when the head has come to rest on the pelvic floor, and the early removal of the placenta. Primiparous labors and those in which the condition of the soft parts approximates a first labor, are treated by this method, which really comprises more than the actual delivery of the child. It is a rounded technic for the conduct of the whole labor, with the defined purpose of relieving pain, supplementing and anticipating the efforts of Nature, reducing the hemorrhage, and preventing and repairing damage.

A visão do parto como um processo patológico, uma experiência "dolorosa e aterrorizante" e a proposta do fórceps profilático por DeLee (1920)

Figure 4. The view of childbirth as a pathological process, a "painful and terrifying" experience and the proposal of prophylactic forceps by DeLee (1920)

The purpose of the episiotomy, according to DeLee's postulates, would be to reduce the probability of severe perineal lacerations, while the association with the forceps would minimize the risk of fetal trauma, preventing hypoxia. This assumption came to be accepted as an indisputable truth and transcribed in several Obstetrics treatises around the world, although there was no reliable scientific evidence of its effectiveness and safety.[4]

The practice of episiotomy was expanded in subsequent decades, coinciding with the progressively greater number of hospital births from the 1940s onwards in the USA. This change in the place of birth generated a series of interventions that were not based on scientific evidence.[4]

While deliveries were attended at home, birth was seen as a natural and physiological process, and so was the functioning of the perineum during and after delivery. With hospitalization, birth came to be considered a pathological process, **necessarily** requiring obstetric interventions to prevent or reduce the incidence of complication.[4]

Some authors mention that the practice of episiotomy increased considerably from the 1950s onwards because many physicians believed that performing it significantly reduced the duration of second stage of delivery, which allowed them to quickly respond to the large demand for hospital deliveries, sometimes simultaneous.[4]

It should be noted that the use of this procedure has become much more frequent with the adoption of delivery in the horizontal position and the systematic use of relief forceps, requiring "extra space" for vaginal manipulation. The use of forceps also became progressively more frequent in hospital deliveries, due to the use of anesthetic techniques that impaired maternal expulsive efforts. The lithotomic position was also popularized,

despite all its inconveniences, already known at the time, because it guaranteed better access for the obstetrician to the birth canal.[4,11]

Figure 5. Natural Childbirth March, London, UK

The number of episiotomies only began to reduce from the 1970s onwards, when women's movements and active childbirth campaigns began to question the procedure (**Figure 5**). Concomitantly, the first well-conducted clinical studies on the subject were published, in which the routine use of episiotomy was questioned.[12-15]

The important review by Thacker and Banta, published in 1983, stands out, in which it was demonstrated, in addition to the lack of evidence of its effectiveness, considerable evidence of the risks associated with the procedure: pain, edema, infection, hematoma and dyspareunia.[16] Despite having little impact on the scientific community at the time, this study aroused interest in studying episiotomy, and subsequently randomized clinical trials were conducted on the subject, the first being the West Berkshire Trial, published in 1984[17], and the largest an Argentine study, published in 1993.[18]

Unfortunately, although they represented a considerable scientific advance in the sense of seeking evidence for the practice of a procedure that had already become widespread in the 20th century, the first published randomized clinical trials on episiotomy did not compare the **intervention (episiotomy)** with a control group without intervention, which would be desirable. They preferred to create a concept of "selective episiotomy" (which would be indicated only in special situations) to constitute the intervention group against which routine episiotomy would be compared **(control group)**, which is a contradiction (since the true **intervention** is routine episiotomy). This generates, therefore, a bias, because these studies were published without the effectiveness and safety of **any** episiotomy having ever been proven, but even so they were a considerable advance in making the practice of Obstetrics more scientific, and nowadays they are gathered and summarized in the systematic review of the Cochrane Library [19] (**Figure 6**), as we will discuss next.

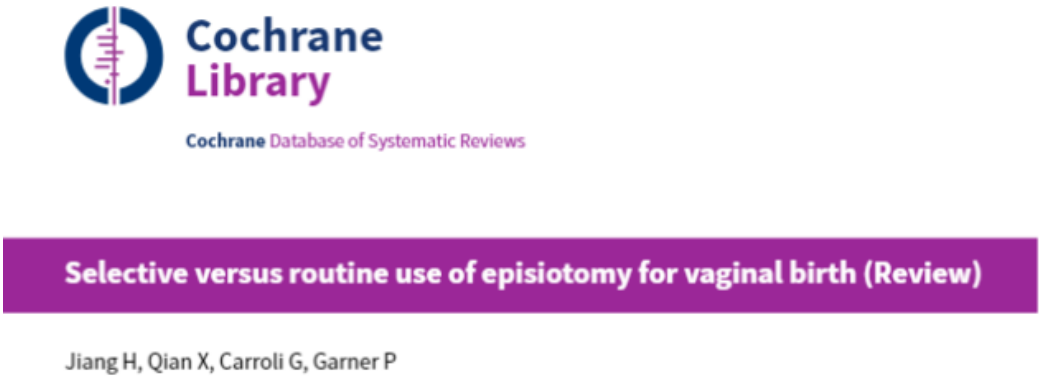


Figure 6. Systematic Cochrane review: selective vs. routine episiotomy for vaginal delivery

Selective Episiotomy vs. Routine episiotomy: scientific evidence

In a systematic review published in 2005, Hartmann et al. evaluated 26 articles from 986 studies searched through Medline, the Cochrane Library, and the Cumulative Index to Nursing and Allied Health Literature. The authors concluded that episiotomy did not bring any benefits, being associated with considerable damage such as pain, greater need for analgesics and severe perineal lacerations. In the Discussion, they comment that "in the absence of benefits and with a potential for harm, a procedure should be abandoned" [20].

The systematic review of the Cochrane Library,[19] last updated in 2017, includes 12 randomized controlled trials (RCTs) and a total of 6,177 parturients, with 11 RCTs performed on women in labor who were anticipated to have a vaginal delivery and one RCT on women who were anticipated an assisted delivery, with participants undergoing selective or routine episiotomy. Two studies over 1,000 women (Argentina and the United Kingdom), and the rest were smaller (from Canada, Germany, Spain, Ireland, Malaysia, Pakistan, Colombia and Saudi Arabia). Eight studies included only primiparous women, and four studies were in primiparous and multiparous women.

Among women randomized to selective episiotomy, the rate of episiotomy ranged from 8% to 59% versus 61% to 100% in the routine episiotomy group. The authors concluded that it was not possible to identify any benefits of routine episiotomy for mother or baby. The rate of severe perineal trauma was 30% lower in the group that received selective episiotomy, a difference that was statistically significant (RR=0.70; 95% CI=0.52-0.94) (**Figure 7**), so that the old rationale of performing routine episiotomies to prevent severe perineal trauma is not justified by current evidence. The evidence, therefore, does not support routine episiotomy.[19]

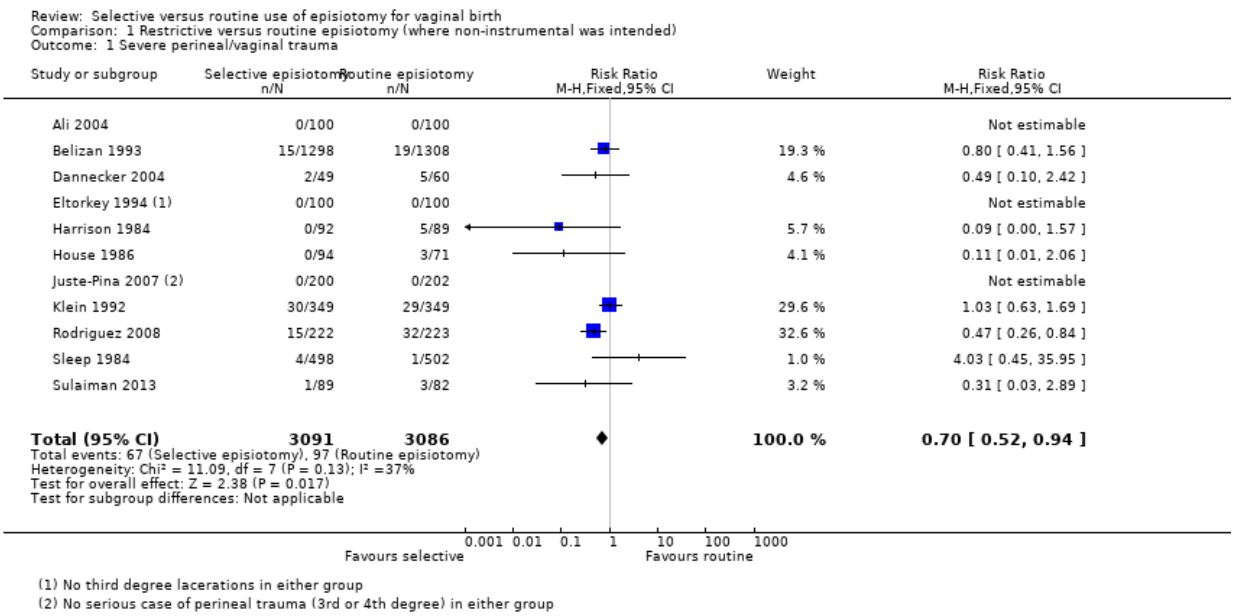


Figure 7. Selective vs. routine episiotomy: severe perineal trauma (Cochrane Review, 2017)

Based on these results of systematic reviews, as well as on the conclusions of several other randomized studies already published and observational studies that evaluate the effect of episiotomy on the pelvic floor,[17–31] we can conclude that:

a) There is no difference in perinatal outcomes or reduction in the incidence of neonatal asphyxia in deliveries with selective episiotomy vs. routine episiotomy;
b) There is no protection of the maternal pelvic floor: routine episiotomy does not protect against urinary or fecal incontinence, nor against genital prolapse, being associated with reduced pelvic floor muscle strength in relation to cases of spontaneous perineal lacerations;
c) Episiotomy is no easier to repair than spontaneous lacerations. The need for suturing is less when routine episiotomy is not performed;
d) Episiotomy is per se a second-degree perineal laceration, generally more extensive and deeper than spontaneous perineal lacerations. When it is not performed, no laceration may occur or previous lacerations may appear, of

first or second degree, but with a better prognosis. There is a reduction in posterior trauma when routine episiotomy is not performed;

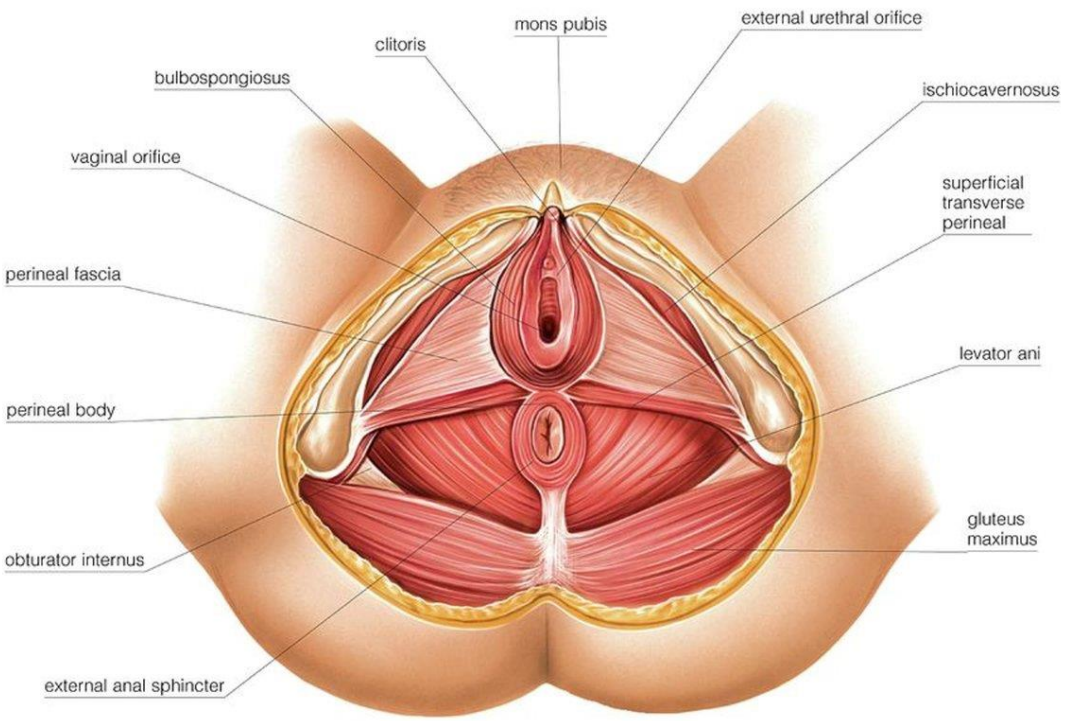


Figure 8. Episiotomy: EXTENSIVE and DEEP perineal laceration. Muscles cut in episiotomy: superficial transverse of perineum, bulbocavernosus, puborectalis bundles of elevator ani muscle, fibers of striate anal sphincter, deep transversus perineum muscle.

e) Episiotomy does not reduce perineal damage; on the contrary, it increases it: a practice of restrictive episiotomy reduces the risk of serious perineal injury; in median episiotomies, the risk of third- or fourth-degree lacerations is greater;
f) Episiotomy increases the chance of postpartum pain and dyspareunia;
g) Episiotomy increases blood loss and can lead to complications such as edema, dehiscence, infection (even necrotizing fasciitis) and hematoma;
h) The practice of episiotomy entails higher hospital costs: Belizan estimated savings between US$6.50 and US$12.50 for each vaginal delivery without episiotomy in the public sector.[18] At the time of this publication, the estimate for Brazil would be savings of around 15 to 30 million dollars a year, avoiding unnecessary episiotomies.

Considering all the evidence presented above, the current World Health Organization (WHO) guideline **strongly** recommends against routine episiotomy and does not establish any optimal or acceptable rate of episiotomy. In this guideline, the WHO acknowledges that there is a lack of evidence on episiotomy in general and that there is no evidence supporting the need for **any** episiotomy in routine care. The role of episiotomy in obstetric emergencies, such as fetal distress requiring instrumental delivery, remains to be established.[6]

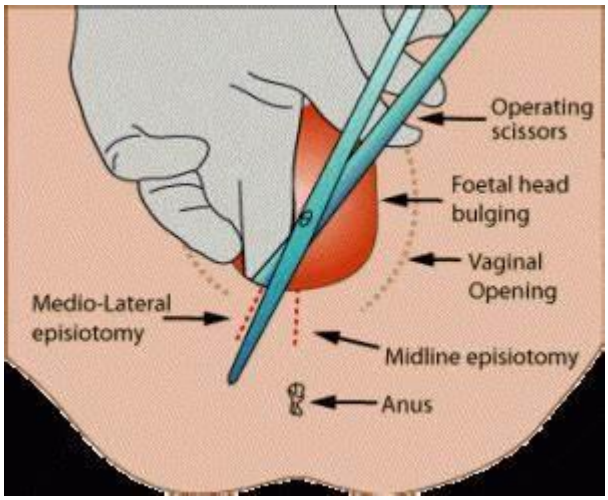


Figure 9. Mediolateral and midline episiotomy (Jeremy Kemp, CC BY)

Strategies to Reduce Episiotomy Rates

It is important to remember that, like any surgical procedure, episiotomy should only be performed with the informed consent of the parturient. There is no justification for carrying out any surgical intervention without the consent of the patients, except in conditions with imminent risk of death, which is not the case with episiotomy. Planning for this and other interventions should also be part of the birth plan.[32]

With the release of successive versions of the Cochrane systematic reviews as well as the systematic review by Hartmann et al. (2005), in addition to highlighting the need for an evidence-based obstetric practice worldwide, rates of episiotomies have declined in many countries. In a study using data from the National Inpatient Sample, trends and factors associated with episiotomies in non-operative deliveries in the US between 2000 and 2018 were analyzed. Among 9,654,749 deliveries, the rate of episiotomy dropped from 26.4% in 2000 to 4.9% in 2018. The mean annual change in episiotomy rates was -8.9% with marked reductions across geographic regions. The risk of episiotomy was higher among non-Hispanic whites, CEP from high-income regions and deliveries in urban non-school hospitals. Episiotomy was also more frequent in deliveries complicated by shoulder dystocia.[33]

In Europe, episiotomy rates also showed a significant decline, but there are strong differences from country to country. Euro-Peristat data from 2010 published in 2016 showed a variation in episiotomy rates from 4.9% in Denmark (3.7% in non-instrumental deliveries), 6.6% in Sweden to 72.9% in Portugal and 75% in Cyprus[34]. A Portuguese study published in 2022 showed that there was a decrease in episiotomies from 81.5% in 2000 to 54% in 2015, with episiotomy being strongly associated with instrumental delivery. The rate of episiotomies did not decline in instrumental deliveries (95.5% in 2000 and 94% in 2015). On the other hand, severe perineal trauma rates dropped among women without episiotomy and non-instrumental delivery. The authors believe episiotomy rates can safely decrease further in the country.[35]

Evidence suggests that rates can be further reduced through continuing medical education programs and documentation of the procedure indication.[36]

In Brazil, which has already been described as the country where "when you don't cut from above, you cut from below" (an allusion to the high rates of cesarean sections and episiotomies),[37] the episiotomy rates described in 2014 in the large study "Born in Brazil" were 54%.[38] Studies conducted to assess the effect of the pandemic on childbirth care practices revealed a drop in episiotomy rates in Belo Horizonte from 15.7% (2011-2013) to 2.1% in the first three months of the pandemic (2020).[39] However, there are strong regional differences and association with place of birth. A study conducted in Rio de Janeiro found an episiotomy rate of 1.2% in birthing centers vs. 46% in hospitals in the period 2011-2012.[40] More recent data were collected in the recent version of the survey "Born in Brazil" (2021-2022) but have not yet been published.

Regrettably, both in private clinics and in the public service, many obstetricians still adopt the frequent practice of episiotomy which, according to Marsden Wagner (1999), when performed without indication constitutes a true female genital mutilation, causing damage to women's health.[41]

Since scientific evidence demonstrates that the routine procedure is not necessary and can be harmful, it must be understood that its systematic

performance by obstetricians follows a ritualistic pattern, characteristic of the technocratic model presented by Robbie Davis-Floyd.[42,43] (**Figure 10**). In his doctoral thesis, Diniz (2001) refers to the speech of a doctor who claimed to know the evidence, but who continued performing episiotomies because at the time "the hand goes alone".[44]

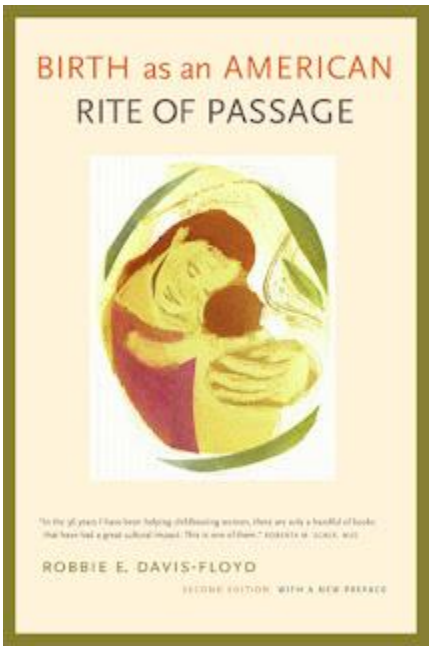


Figure 10. Robbie Davis-Floyd. Birth as an American Rite of Passage

It is also important to recognize that the episiotomy emerged and remains within a model of misogynistic, sexist and patriarchal childbirth care, which sees the female body as essentially defective and depending on medical interventions to give birth. A whole medical mythology has been built around episiotomy, believing it to be necessary to prevent perineal damage and savior to protect babies, without this being supported by solid scientific evidence. To complete, in Brazil more than 90% of deliveries are assisted by doctors, to the detriment of obstetric nurses and midwives, who, due to their training privileging the physiological, are less likely to perform episiotomy and other interventions.[45]

There are many obstetricians who have been conditioned by years of training, since their graduation and medical residency, to the systematic practice of episiotomy and who cling to these outdated concepts, continuing to perform the procedure routinely or with unjustifiable frequency. Thus, as Davis-Floyd describes, this procedure is performed as a "rite of passage", which explains why episiotomy rates are still high in so many countries and hospitals in the 21st century.[42]

Indications for Episiotomy in Modern Obstetrics

Despite the recommendation NOT to perform a routine episiotomy, with all available evidence supporting its selective or restrictive performance, doubts persist about what would be the real indications for performing an episiotomy in modern obstetric practice.[46]

Recently, in 2018, the American College of Obstetricians and Gynecology (ACOG) established in its Practical Bulletin that the use of episiotomy should be restrictive. According to the ACOG, "current data and clinical opinion suggest that there are insufficient objective evidence-based criteria to recommend episiotomy, especially routine use of episiotomy, and that clinical judgment remains the best guide for use of this procedure. Restrictive use of episiotomy remains the best practice".[23] This recommendation may be too elastic, because clinical judgment is very subjective, but it recognizes that there are no objective evidence-based criteria for recommending episiotomies. The ACOG further warns that "clinical trials are needed to assess uncertainties in the existing medical literature and better define a list of indications for episiotomy.[5]

It is not truly clear in which situations episiotomy is, in fact, essential, because even instrumental deliveries (forceps or vacuum extraction) can be performed without episiotomy.[47] In fact, the combination of instrumental delivery, particularly forceps and episiotomy, results in an increase in severe perineal lacerations, with possible impairment of anal function. Some authors recommend that this potentially deleterious combination be avoided.[48,49]

In a review of assisted deliveries without episiotomy in Campina Grande, Brazil, Amorim et al. analyzed 1,000 vaginal deliveries, with an instrumental delivery frequency of 5% (vacuum=3.5% and forceps=1.5%). The rate of vaginal lacerations in forceps deliveries was 70%, and 50% of lacerations required suturing. When vacuum was used, the rate of lacerations was 50% and 28.6% required suturing. There were no cases of severe perineal laceration (third and fourth degree).[50]

In the Cochrane systematic review, questions are asked about what the indications for episiotomy would actually be: operative delivery, preterm delivery, breech delivery, macrosomia or threat of severe perineal rupture.[19] However, these situations have been questioned as an indication for episiotomy and clearly this subject needs to be better studied in randomized clinical trials.[46] While it is clear that routine episiotomy MUST be avoided, there is no solid evidence supporting ANY indication for episiotomy.

Regarding the "threat of severe perineal rupture", to prevent third- or fourth-degree ruptures, it is not an objective diagnosis and, clinically, it is not well defined what would characterize this "threat".[46] Third- and fourth-degree lacerations are indeed very rare, and it has also not been estimated how many episiotomies would be needed to prevent a single case of severe perineal rupture.[18]

In our opinion (2008)[46], corroborated by other authors, episiotomy is not useful in shoulder dystocia, because the problem in this case is a disproportion of the fetal shoulders with the bony pelvis, and not with the maternal perineum.[51] The maneuvers included under the acronym "HELPERR" (or "ALEERTA" in Portuguese) by Advanced Life Support in Obstetrics (ALSO) are effective in terms of management of shoulder dystocia, without the need for an episiotomy, although in the proposed algorithm the letter "E" corresponds to the recommendation to "consider whether there is a need for an episiotomy".[52] An apparent indication would be to increase internal space to perform rotation maneuvers, but as in most cases dystocia can be resolved with the McRoberts maneuver or suprapubic pressure, many women can be spared a surgical incision.[53] We also point out that it is very difficult to perform an episiotomy after the exteriorization of the cephalic pole, in the presence of shoulder dystocia, and it is not recommended to waste time insisting on an episiotomy, and one should privilege resolutive maneuvers. We also disagree with performing the episiotomy "prophylactically" when shoulder dystocia is anticipated (for example, suspected fetal macrosomia), this would imply in many episiotomies cut in view of the low accuracy of methods for predicting fetal weight at term and lack of evidence of its usefulness in this situation.

Regarding prematurity, there is no evidence that episiotomy is necessary to prevent fetal birth trauma.[4,16,54,55] There are also no randomized clinical trials proving the need for an episiotomy in breech birth, and even the most feared complication, fetal head entrapment, is not associated with disproportion related to the perineum. The World Health Organization recommends performing an episiotomy in pelvic delivery only if the perineum is very rigid.[56] But this assessment of "stiff perineum" is also very subjective and has not been adequately studied in randomized controlled trials.

Figure 11. Deliveries without episiotomy (personal archive)

A study published in 2012 refers to the "end of episiotomy", demonstrating that in several obstetric conditions such as macrosomia, fetal distress, occiput posterior, shoulder dystocia and instrumental delivery the rate of third- and fourth-degree lacerations actually INCREASES and does not decrease when episiotomy is performed (**Figure 12**).[57]

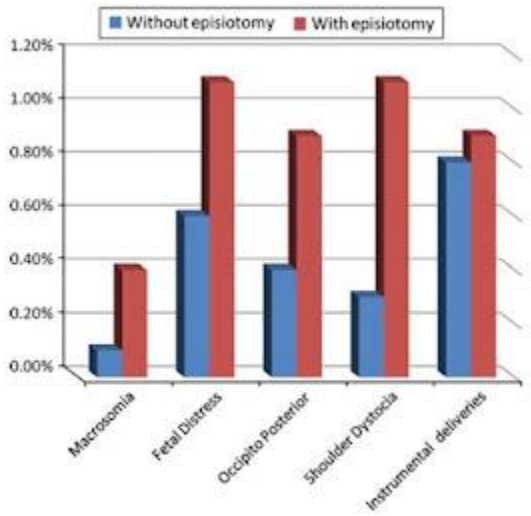


Fig. 2 Percent of 3rd and 4th degree perineal tears in selected critical conditions

Figure 12. Percent of 3rd and 4th degree perineal tears in selected critical situations

In the last two decades (from the 2000s to the present) it has been suggested that episiotomy should never be performed. With a protocol of not performing an episiotomy combined with perineal protection strategies, Amorim et al. found a rate of intact perineum of around 60% and only 23% of need for suture in parturients who were not submitted to episiotomy.[58–60] The first RCT comparing not performing an episiotomy with restrictive use in 237 women was published in 2017[61], describing episiotomy rates around 1.7% in both groups and similar maternal and perinatal outcomes, without severe perineal trauma. However, as it was an isolated study with a small sample in a single center, which already had very low rates of episiotomy in daily clinical practice, the authors recommended further studies.

In another RCT published in 2020, with the provocative title "Is it time to abandon the use of episiotomy?", Sagi-Dain et al. randomized 676 women into two groups: a "no episiotomy" study group (in which episiotomy was only allowed in cases of fetal distress), with 339 participants, and another "routine care" group (337 participants). Episiotomy rates were significantly lower in the study group (19.6%) compared to the standard care group (29.8%, p = 0.004). Five (1.5%) severe perineal traumas were diagnosed in the study group versus ten = 3.0% in the controls, which was not significant, but indicated a trend towards greater severe perineal trauma in the usual care group, favoring non-compliance episiotomy. No differences were observed in any secondary outcomes. However, the episiotomy rates found were still high in both groups and it is somewhat surprising to have a rate of almost 20% of episiotomies in the "non-episiotomy" group) and the study was not sufficiently powered to assess the outcome "severe perineal trauma". Even so, the authors judged their results important enough to conclude that "because decreased use of episiotomy was not associated with higher rates of severe ruptures or any other adverse outcomes, we believe that this procedure can be avoided in both spontaneous and assisted deliveries vacuum."[62]

We agree with Sagi-Dain et al. and we advocate a "never episiotomy" policy. If an "urgent" episiotomy is necessary in any obstetric emergency (never electively), this needs to be adequately proven by randomized clinical trials, highlighting that the burden of proof falls on the intervention!

Until such studies are available, we suggest, since 2008[46] that the best recommendation for performing an episiotomy can be summed up by Scott's famous quote (2005)[63] referring to Eason and Feldman (2000): "Don't do anything, sit down!".

Figure 13. Normal postpartum intact perineum without episiotomy (personal archive)

CONCLUSIONS

Based on the results of several studies and current evidence, the authors can conclude that there is no difference in perinatal outcomes or reduction in the incidence of neonatal asphyxia in deliveries with selective episiotomy vs. routine episiotomy. Episiotomy does not protect the maternal pelvic floor, is more extensive, deeper and no easier to repair than spontaneous perineal laceration. Episiotomy increases perineal damage, chance of postpartum pain and dyspareunia, blood loss, can lead to complications and entails higher hospital costs.

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