

IN THE NAME OF GOD

Episiotomy

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INTRODUCTION

Routine use of episiotomy has fallen out of favor based on evidence of increased complications with use. Episiotomy is now performed on an individualized basis.

PREVALENCE AND RISK FACTORS

rates of episiotomy have generally been in decline. In the United States, the episiotomy rate dropped from 17.3 to 11.6 percent from 2006 to 2012

In Canada, episiotomy rates dropped for both operative and spontaneous vaginal deliveries between 2004 and 2017 (operative vaginal deliveries from 53 to 43 percent and spontaneous vaginal deliveries from 13.5 to 6.5 percent, respectively)

In a study from a United States insurance database, demographic characteristic associated with receipt of episiotomy included white race. Hospital factors including rural location or academic center were associated with reduced rates of episiotomy.

LACK OF ADVANTAGES FOR EPISIOTOMY USE

- Reduction of trauma to the fetal head** : Although episiotomy has been advocated to minimize the risk of intraventricular hemorrhage in preterm births, there is no evidence that this intervention is effective on a routine basis
- Preservation of the muscular and fascial support of the pelvic floor** : Episiotomy also does not protect pelvic floor strength and may result in a weakened pelvic floor musculature when compared with spontaneous laceration
- Ease of repair and improved wound healing**

-Prevention of shoulder dystocia – In a systematic review of 14 studies including over 9700 cases of shoulder dystocia, only one study evaluated the effect of episiotomy on prevention of shoulder dystocia, and the result was not significant

While episiotomy **does not appear to prevent shoulder dystocia**, its use in the management of shoulder dystocia is less clear.

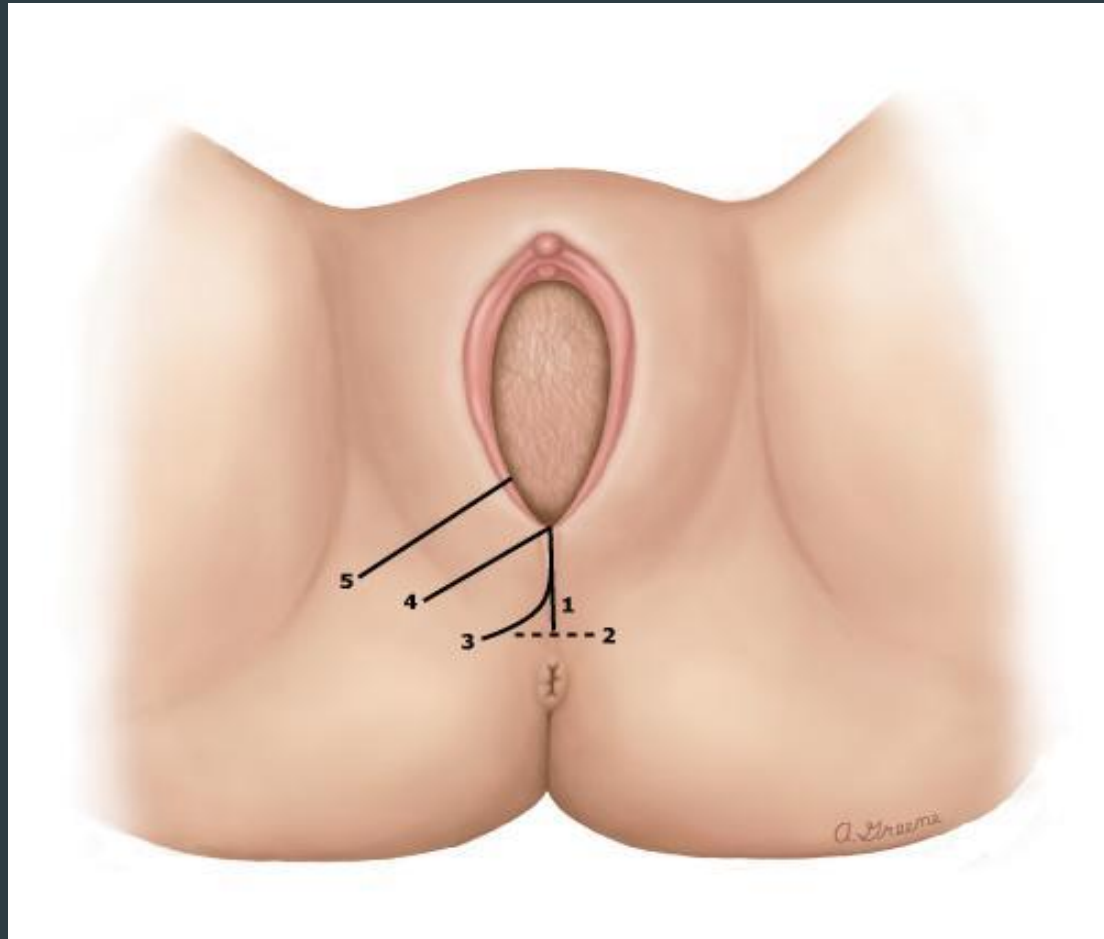
ADVERSE OUTCOMES OF EPISIOTOMY

- 1-Extension of the incision, leading to third- and fourth-degree tears, particularly for median episiotomy
- 2-Risk of unsatisfactory anatomic results (eg, skin tags, asymmetry, fistula, narrowing of introitus)
- 3-Increased blood loss
- 4-Higher rates of infection and dehiscence
- 5-Increased risk of severe perineal laceration in subsequent deliveries

WHEN TO CONSIDER EPISIOTOMY

- Expedite delivery of the fetus:Episiotomy is only helpful if delivery is being blocked by perineal tissue
- Operative vaginal delivery:the decision to perform an episiotomy during an operative vaginal delivery is at the discretion of the clinician
- Shoulder dystocia :In some cases of shoulder dystocia, performing an episiotomy can increase space for the operator's fingers and thus facilitate delivery of the posterior shoulder and other internal procedures, but does not appear to prevent shoulder dystocia or release the impacted anterior shoulder

Types of episiotomy



Mediolateral versus median (midline) episiotomy

When performing episiotomy, our preference is a mediolateral episiotomy because it does not increase the risk of an anal sphincter laceration

Mediolateral episiotomy is associated with increased blood loss. In addition, mediolateral episiotomy has historically been thought to result in more perineal pain and dyspareunia.

PERFORMING EPISIOTOMY

- Patient education and consent

- Anesthesia options

- Timing : A reasonable approach is to perform the procedure when the delivery of the fetus is anticipated within the **next three to four contractions**. In a prospective cohort study that compared episiotomy prior to crowning with episiotomy performed at crowning, episiotomy performed prior to crowning was associated with increased vaginal trauma, longer mean episiotomy length, and greater mean estimated blood loss.



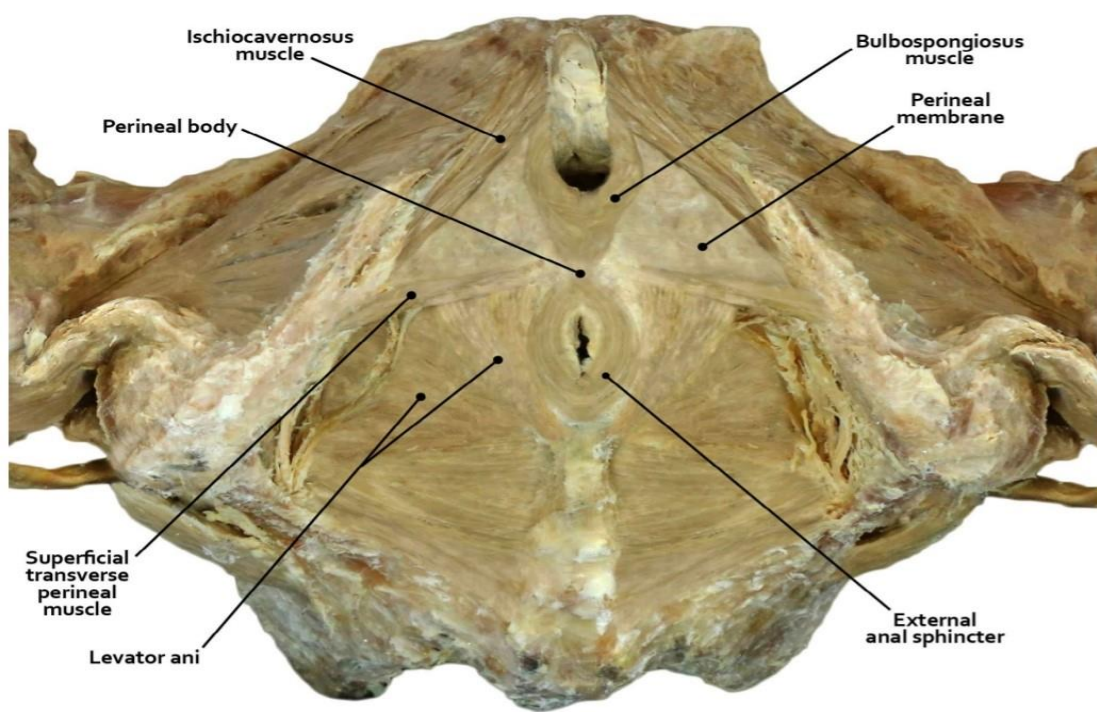
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Mediolateral episiotomy

For a mediolateral incision, the incision is made at the vaginal introitus in a lateral direction. The incision is initiated at the fourchette and cut at an angle (usually to the maternal right for right handed clinicians) that may be almost

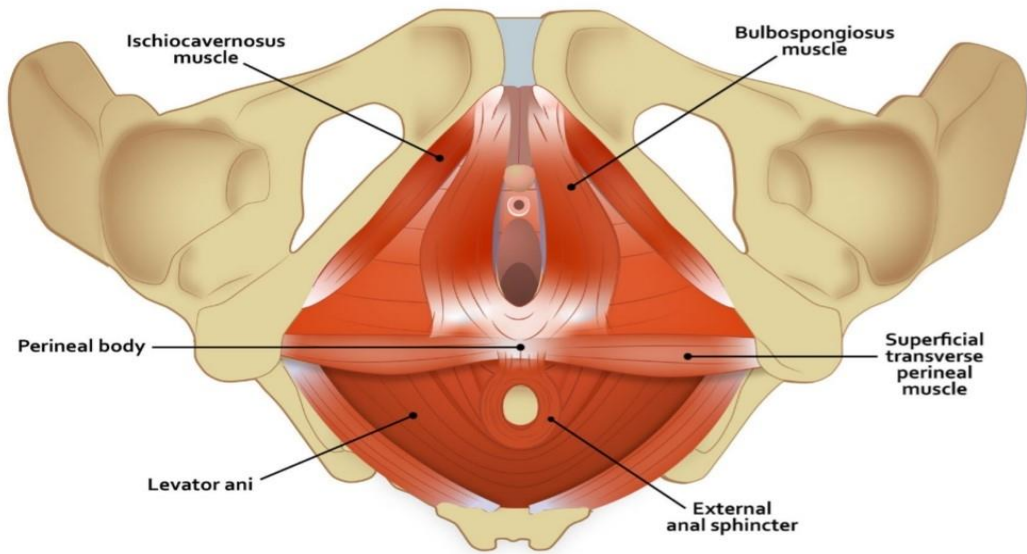
perpendicular to the midline (80 to 90 degrees as the fetal head is crowning); however, after delivery of the infant, this angle becomes smaller, approaching 45 degrees, since the perineum is no longer stretched and distorted by the fetal presenting part. The final angle of the incision should be at 30 to 60 degrees from the midline to minimize the occurrence of sphincter injury. The incision is usually between 3 and 5 cm in length.

The anatomic structures incised include the vaginal epithelium, transverse perineal and bulbocavernosus muscles, and perineal skin. If the incision is large, adipose tissue within ischioanal fossa may be exposed



Inferior View of Female Perineum

Hide Labels



Complications attributed to episiotomy

Infection

Hematoma

Third and fourth degree extension

Cellulitis

Dehiscence

Abscess

Dyspareunia

Altered sexual function

Perineal pain

Incontinence: urinary, fecal, flatus

Rectovaginal fistula

Impaired pudendal nerve conduction

Necrotizing fasciitis

IMPACT ON FUTURE DELIVERIES

Episiotomy use at the time of first vaginal delivery appears to **increase the risk of a severe obstetric laceration** in a subsequent vaginal delivery. In a review of over 6000 deliveries that compared women with episiotomy at first delivery versus those without, women with prior episiotomy had a greater number of severe perineal lacerations (4.8 versus 1.7 percent) and more second degree lacerations (51.3 versus 26.7 percent) at the time of subsequent delivery.

Perineal Lacerations



First-degree

Involves only the perineal skin



Second-degree

Involves the perineal body and deeper tissues

Bulbospongiosus muscle

Superficial transverse perineal muscle



Third-degree

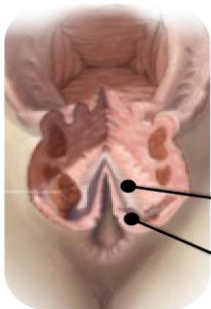
Extends into the capsule and muscle of the rectal sphincter

External anal sphincter

3a < 50%

3b > 50%

3c involves both external and internal anal sphincters



Fourth-degree

Extends through the sphincter and into the rectal mucosa

Internal anal sphincter

Rectal mucosa

PREOPERATIVE PREPARATION

Adequate exposure, lighting, and analgesia are essential for a thorough examination

The apex of the vaginal laceration should always be identified. The clinician can place four fingers into the perineal laceration and then spread the fingers to increase visualization of the laceration apex. After inspecting the vagina, a **rectal examination** should be performed to exclude injury to the anorectal mucosa and anal sphincter. The **rectovaginal examination** is accomplished by placing an index finger in the rectum and the thumb over the anal sphincter and using a **pill-rolling motion** to assess the sphincter.

- Perineal shaving is unnecessary
- Antibiotics are unnecessary for repair of first- and second-degree lacerations
- Anesthesia :The level of anesthesia should be adequate for the surgical repair.

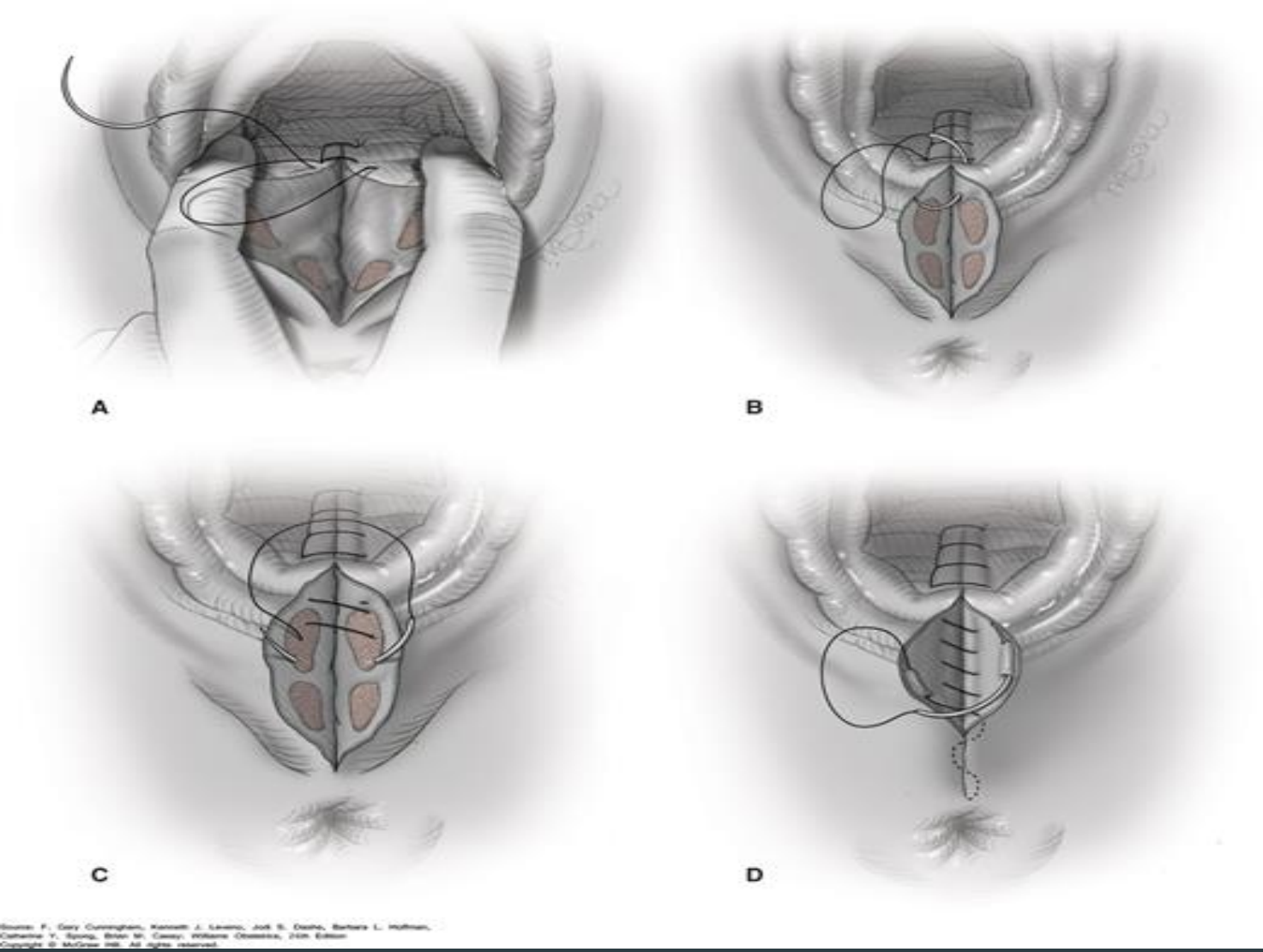
CHOICE OF SUTURE

In most institutions, chromic catgut has been largely replaced by synthetic, delayed-absorbable materials, such as **polyglactin 910 and polyglycolic acid**, as use of chromic catgut appears to be associated with more postpartum discomfort. In general, the use of **polyglactin 910 suture sizes 2/0 and 3/0** is a reasonable choice for most routine repair of perineal and vaginal lacerations. Rapid absorption polyglactin 910 appears to be associated with reduced perineal pain, including a reduction in superficial dyspareunia, at three months postpartum, as well as a significant reduction in the need for suture removal up to three months postpartum.

SURGICAL TECHNIQUE

If the apex of the episiotomy extends out of the field of vision, a suture can be placed below the apex and the suture tail used as a purchase to pull the apex into view. The anatomical landmarks, such as the hymenal ring, should be identified and reapproximated. Theoretically, use of a locking stitch will prevent pulling the suture too tight and shortening the vagina; we do not use a locking stitch, as there is no evidence to support this theory. We prefer to close with a **loose, continuous nonlocking** technique to reduce the risk of narrowing the vagina, and make sure that the sutures are not placed too wide of the edge

Following closure of the vaginal portion of the laceration down to the level of the hymenal ring, the perineal body and bulbocavernosus muscle are then reapproximated. The same suture is usually passed through the vaginal layer above through to the deep perineal layer, in what is commonly referred to as the "transition stitch". Some surgeons prefer to close this layer with three to four interrupted sutures to approximate the deep and superficial perineal muscles.



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Perineal Laceration Care:

- locally applied ice packs
- warm sitz
- analgesics
- sex activity

Pain →

vulvar, paravaginal
Hematoma/Cellulitis

Following any repair



needle and sponge counts are
reconciled and recorded in the
delivery note.

Rectal examination should be
performed.

Thanks For
Your Attention

