

# Genital tract trauma

## Episiotomy

### Definition

An episiotomy is an incision through the perineum made to enlarge the diameter of the vulval outlet and assist childbirth.

### Indications:

- Fetal distress.
- Rigid perineum.
- Shoulder dystocia.
- Fetal malposition e.g. occiput posterior.
- Breech delivery.
- Instrumental delivery.
- Previous pelvic surgery.

### Technique

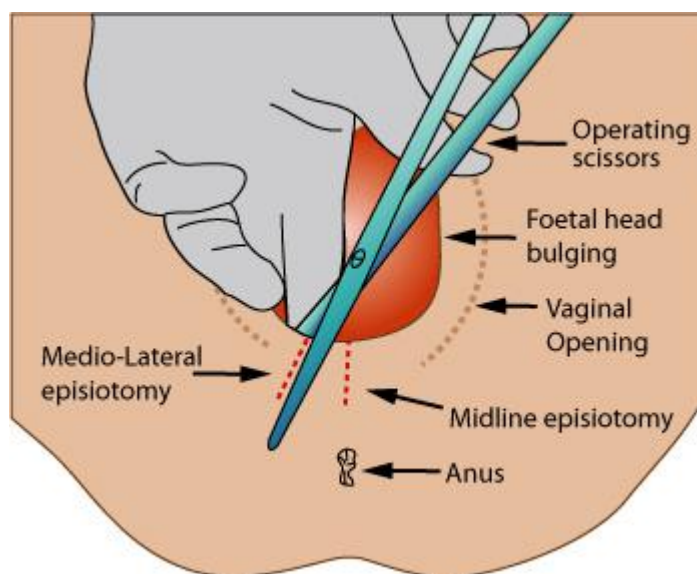
The question of informed consent needs to be addressed during antenatal care; when the fetal head is crowning, it is not possible to obtain true informed consent

- An episiotomy is performed in the second stage, usually when the perineum is being stretched and it is deemed necessary.
- If there is not a good epidural, the perineum should be infiltrated with local anaesthetic.
- The incision can be midline or at an angle from the posterior end of the vulva (a mediolateral episiotomy).

- A mediolateral episiotomy is usually recommended; a midline episiotomy is an incision in a comparatively avascular area and results in less bleeding, quicker healing and less pain, however, there is an increased risk of extension to involve the anal sphincter (third/ fourth-degree tear).
- A mediolateral episiotomy should start at the posterior part of the fourchette, move backwards and then turn medially well before the border of the anal sphincter, so that any extension will miss the sphincter

## Complications

Complications include haemorrhage, infection (prophylactic antibiotics may be indicated if contamination is suspected), extension to the anal sphincter (third/fourth-degree tears) and dyspareunia.



## Perineal trauma

### Definitions

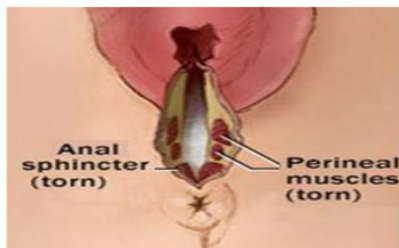
1. First-degree trauma corresponds to lacerations of the skin/vaginal epithelium alone.
2. Second-degree tears involve perineal muscles and therefore include episiotomies.
3. Third-degree extensions involve any part of the anal sphincter complex (external and internal sphincters):
  - i Less than 50 per cent of the external anal sphincter is torn.
  - ii More than 50 per cent of the external anal sphincter is torn.
  - iii Tear involves the internal anal sphincter (usually there is complete disruption of the external sphincter).
4. Fourth-degree tears involve injury to the anal sphincter complex extending into the rectal mucosa.



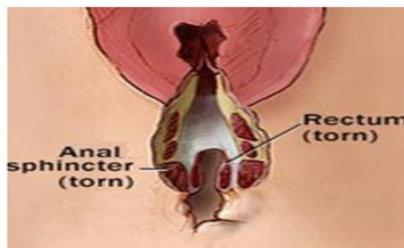
First Degree Perineal Tear



Second Degree Perineal Tear



Third Degree perineal tear



Fourth Degree Perineal Tear

**An increased risk of perineal trauma is associated with:**

- larger infants
- prolonged labour
- instrumental delivery.

Internal anal sphincter incompetence results in insensible faecal incontinence, whereas external anal sphincter incompetence causes faecal urgency.

### **Perineal repair (للاطلاع)**

- Ensure adequate analgesia. This may be achieved by topping up an epidural or by infiltration with local anaesthetic.
- Check the extent of cuts and lacerations.
- First repair the vaginal mucosa using rapidly absorbed suture material on a large, round body needle. Start above the apex of the cut or tear (as severed vessels retract slightly) and use a continuous stitch to close the vaginal mucosa.
- Interrupted sutures are then placed to close the muscle layer.
- Closure of the skin follows. Interrupted sutures can be used; however, a continuous subcuticular stitch produces more comfortable results.
- Perform a gentle vaginal examination to check for any missed tears or inappropriate apposition of anatomy. Remove the pad that was

placed at the top of the vagina and check that no swabs have been left in the vagina.

- Finally, put a finger in the rectum to check that no sutures have passed through into the rectal mucosa and that the sphincter is intact. If sutures are felt in the rectum they must be removed and replaced.

Repair of third- and fourth-degree trauma should be performed or directly supervised by a trained practitioner. There must be adequate analgesia. In practice, this means either a regional or general anaesthetic, as local infiltration does not allow relaxation of the sphincter enough to allow a satisfactory repair. The lighting must be adequate and an assistant is usually needed.

Repair of the rectal mucosa should be performed first. The torn external sphincter is then repaired. It is important to ensure that the muscle is correctly approximated with long-acting sutures so that the muscle is given adequate time to heal. Some surgeons opt for an end-to-end repair, while others use an overlap technique; The remainder of the perineal repair is as for second-degree trauma.

Lactulose and a bulk agent are recommended for 5—10 days. It is common sense to give a broad-spectrum antibiotic that will cover possible anaerobic contamination, such as metronidazole . Adequate oral analgesia should also be prescribed.

At 6-12 months, a full evaluation of the degree of symptoms should take place. Symptomatic women should be offered investigation including endoanal ultrasound and manometry

Further deliveries should be by C\S.

## **Uterine Rupture**

Uterine rupture implies complete separation of the uterine musculature through all of its layers, ultimately with all or a part of the fetus being extruded from the uterine cavity. The overall incidence is 0.5%.

Uterine rupture may be spontaneous, traumatic, or associated with a prior uterine scar, and it may occur during or before labor or at the time of delivery. A prior uterine scar is associated with 40% of cases. With a prior lower-segment transverse incision, the risk for rupture is less than 1%, whereas the risk with a high vertical (classical) scar is 4% to 7%.

## **DIAGNOSIS AND MANAGEMENT**

The signs and symptoms of uterine rupture are highly variable. Typically, rupture is characterized by the sudden onset of intense abdominal pain and some vaginal bleeding. Impending rupture may be heralded by hyperventilation, restlessness, agitation, and tachycardia. After the rupture has occurred, the patient may be free of pain momentarily and then complain of diffuse pain thereafter. The most consistent clinical finding is an abnormal fetal heart rate pattern. The patient may or may not have vaginal bleeding, and if it occurs, it can range

from spotting to severe hemorrhage. The presenting part may be found to have retracted on pelvic examination, and fetal parts may be more easily palpated abdominally. Abnormal contouring of the abdomen

may be seen. Fetal distress develops commonly, and fetal death or long-term neurologic sequelae may occur in 10% of cases.

A high index of suspicion is required, and immediate laparotomy is essential. In most cases, total abdominal hysterectomy is the treatment of choice, although debridement of the rupture site and primary closure may be considered in women of low parity who desire more children.

### **MATERNAL-FETAL RISK**

Delay in management places both mother and child at significant risk. The major risk to the mother is hemorrhage and shock. Although the associated maternal mortality rate is now less than 1%, if the mother is left untreated, she will almost certainly die. For the fetus, rapid intervention will minimize morbidity and mortality. The associated fetal mortality rate is still about 30%.