



Learn simply

Severe Perineal Lacerations

Suspected severe perineal laceration identified after vaginal delivery

- Inspect the perineum and identify degree of laceration¹
- Inspect the cervix and vagina²
- Be aware of risk factors³

Diagnosis not confirmed

- Repair laceration(s) as appropriate

Diagnosis confirmed

- Repair laceration(s) as appropriate⁴

Immediate postpartum management

- Consider antibiotics⁵
- Consider stool softener and stool bulking agent for 7–14 days post-op
- Provide adequate pain relief and perineal ice packs
- Observe for complications⁶

Delayed postpartum management

- Counsel on implications for future pregnancies⁷
- Schedule outpatient follow-up within 1 week of delivery
- Consider outpatient urogynecology consult
- Evaluate for and treat wound complications⁸

Superficial infection⁹

- Antibiotic coverage if acutely infected⁸
- Exploration and debridement¹⁰
- Drainage of hematomas

Deep infection⁹

- Antibiotic coverage⁸
- Wide surgical debridement
- Consider hyperbaric oxygen

Intermediate infection⁹

- Empiric broad-spectrum antibiotic coverage⁸
- Support of cardiovascular and respiratory systems
- Surgical exploration and debridement¹⁰

Early repair of episiotomy dehiscence

Preoperative:

- Clean wound and remove any remaining suture from previous repair
- Scrub and irrigate wound 2–3 times daily
- Sitz baths after all bowel movements

Perioperative:

- IV broad spectrum antibiotic
- Reapproximate tissue

Postoperative

- Sitz bath 3 times daily and keep perineum dry
- Modify diet to avoid bowel movements initially if repair included rectal mucosa
- Give stool softener and stool bulking agent
- Monitor inpatient until resumption of normal bowel function if rectal mucosa involved



1. Lower genital tract lacerations may involve the cervix, vagina or perineum. Perineal tears may follow any vaginal delivery and are classified by their depth.
2. **A first-degree tear** is a superficial laceration of the vaginal mucosa, which may extend into the skin at the introitus. It does not involve deeper tissues and may not require repair.
3. **A second-degree tear** involves the vaginal mucosa and perineal body. It may extend to the transverse perineal muscles and usually requires a suture repair.
4. **A third-degree tear** extends into the muscle of the perineum and may involve both the transverse perineal muscles as well as the anal sphincter. It does not involve the rectal mucosa.
5. **A fourth-degree tear** involves the anal sphincter and rectal mucosa.
6. Third- and fourth-degree lacerations are considered severe perineal lacerations and may occur with or without an episiotomy. Midline episiotomies are associated with a greater risk of extension to a third- or fourth-degree tear as compared to a mediolateral episiotomy.
7. Bleeding despite a firmly contracted uterus should prompt a thorough inspection of the upper vagina and cervix to exclude a genital tract laceration.
8. Superficial cervical lacerations up to 1-2 cm are not uncommon and do not require repair unless they are bleeding.
9. Deep cervical tears usually require surgical repair.
10. Extensive vaginal or cervical tears should prompt a careful search for evidence of bleeding into the retroperitoneum or even into the peritoneum.

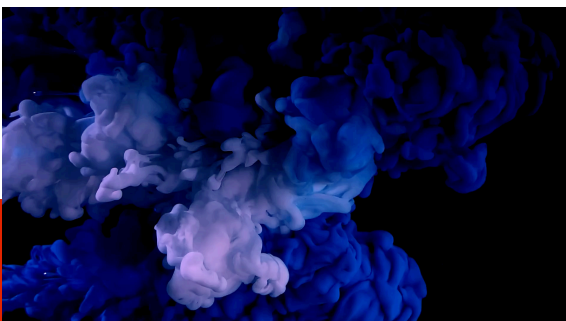
1. The frequency of third- or fourth-degree perineal lacerations is 5-6% in nulliparas and 0.5% in multiparas.
2. Risk factors include nulliparity (7-fold risk), increasing birth weight and gestational age, operative vaginal delivery, occiput posterior position, episiotomy (2.5-fold increase in nulliparous women and 4.5-fold in multiparous women), and a prolonged second stage of labor.
3. Cervical lacerations occur in 1% of nullipara and 0.5 % of multipara. Risk factors include young maternal age, operative vaginal delivery, and cerclage.
4. **The surgical repair** is performed in layers beginning with a running closure of the anal mucosa.
 - The standard suture material is chromic catgut, but synthetic material may also be used, such as 3-0 polyglycolic acid (Vicryl) suture.
 - The needle should be small and tapered for the mucosa (SH1 needle). The first suture should be placed approximately 1 cm above the apex and extend through the submucosa.
 - The mucosa is then closed in a running or locking fashion and should not penetrate the mucosal layer, but rather bring the submucosa together to the level of the anal sphincter and perineal body.
 - The anal sphincter should then be identified.
 - This may require Allis clamp(s) to retrieve the cut edges, incorporating both the muscle and its capsule, which may have retracted laterally.
 - It is important to suture the fascial sheath and not just the muscle when repairing the anal sphincter, since it is the sheath that gives strength to the repair.
5. Consider using a 2-0 suture for capsule repair because it will give support for a longer time.
6. **Two methods** have been described to repair a laceration of the anal sphincter: **end-to-end and overlapping**. Both appear to have similar long-term outcomes.



1. There is no proven benefit from perioperative antibiotics administration at the time of repair. If antibiotics are given, a single IV dose of a second-generation cephalosporin (cefotetan or cefoxitin) or clindamycin in penicillin-allergic patients is recommended.
2. Short-term complications include greater blood loss, puerperal pain, infection, and wound disruption. If pain is severe or persistent, a physical exam should be performed to evaluate for the presence of a hematoma or infection. Up to 1 in 5 women who sustain an obstetric anal sphincter injury will develop a wound breakdown or infection.
3. Prior anal sphincter laceration does not appear to be a significant risk factor for recurrence of laceration, and most patients will go on to deliver vaginally for subsequent deliveries.
4. Should a wound infection be identified, it should be treated with strict perineal hygiene and oral antibiotics for 7 days (875 mg amoxicillin-clavulanate and 500 mg metronidazole twice daily). Women with wound breakdown can be offered immediate operative repair or conservative management with wound packing and perineal care. The wound can be surgically repaired when its surface is free of exudate and is covered by healthy granulation tissue.
5. In rare cases, inadequately repaired episiotomies may lead to rectovaginal fistula formation.
6. Long-term complications of third- and fourth-degree tears include higher rates of anal incontinence and dyspareunia.



1. Lower genital tract infections can be classified according to the depth of infection.
2. **A superficial infection** is limited to the skin and subcutaneous tissues or to the superficial fascia along the episiotomy incision without necrosis.
3. **An intermediate infection** includes superficial fascial necrosis (necrotizing fasciitis) and is diagnosed when the following criteria are present:
 - (i) extensive necrosis with widespread undermining of surrounding tissue;
 - (ii) moderate-to-severe systemic reaction with altered mental status;
 - (iii) absence of muscle involvement;
 - (iv) failure to demonstrate clostridia in wound and blood cultures;
 - (v) absence of major vascular occlusion;
 - (vi) pathologic examination of debrided tissue showing intense leukocytic infiltration, focal necrosis of fascia and surrounding tissues, and thrombosis of microvasculature.
4. Necrotizing fasciitis is a severe, superficial infection in which both layers of the superficial perineal fascia become necrotic as the infection spreads along fascial planes. It has an acute onset and a rapid course with prominent systemic manifestations and a high fatality rate (20–80%). A deep infection is myonecrosis, which is an infection beneath the deep fascia involving the muscles. It is most commonly caused by *Clostridium perfringens*.
5. An acutely infected episiotomy should not be repaired. Surgical exploration should be performed if there is skin edema or erythema beyond the immediate area of the episiotomy, if severe systemic manifestations are present, or if the infection does not resolve after 24–48 hours of IV antibiotic therapy.



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