

A MODERN VIEW ON THE PREVENTION OF PERINEAL TRAUMA DURING CHILDBIRTH

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Abstract. Perineal trauma during childbirth, including spontaneous tears and episiotomy, is a common outcome of vaginal delivery, affecting 70–85% of women. These injuries can have long-term physical and psychological consequences, such as chronic pain, pelvic floor dysfunction, and sexual health issues. This article reviews the risk factors for perineal trauma and evidence-based strategies for its prevention, including antenatal preparation, intrapartum techniques, and postnatal recovery support. Emphasis is placed on individualized care, patient education, and the role of skilled healthcare providers in minimizing perineal injury.

Keywords: perineal trauma, vaginal delivery, prevention, episiotomy, antenatal preparation, pelvic floor, childbirth techniques.

Introduction. Perineal trauma refers to injuries to the perineal region (skin, muscles, and tissues between the vaginal opening and anus) sustained during childbirth. While minor tears may heal without intervention, severe trauma, such as third- and fourth-degree perineal tears, can lead to complications, including anal incontinence and sexual dysfunction. The prevention of perineal trauma is crucial to improving maternal outcomes and enhancing the birthing experience.

This article explores the causes and risk factors associated with perineal trauma, as well as evidence-based preventive measures and recommendations for clinical practice.

Causes and Risk Factors

1. Maternal Factors:

- First vaginal delivery (primiparity).
- Maternal age (≥ 35 years).
- Reduced perineal elasticity due to lifestyle, genetics, or comorbidities.

2. Fetal Factors:

- Macrosomia (birth weight > 4 kg).
- Occiput posterior or abnormal fetal position.

3. Delivery Factors:

- Prolonged or rapid second stage of labor.
- Instrumental delivery (forceps or vacuum extraction).
- Routine episiotomy, which increases the risk of severe tears in subsequent births.

4. Cultural and Institutional Practices:

- Lack of access to skilled birth attendants.
- Inadequate use of evidence-based intrapartum techniques.

Prevention Strategies

1. Antenatal Preparation

- Perineal Massage:

Regular perineal massage from the 34th week of pregnancy improves tissue flexibility, reducing the likelihood of tearing. Studies suggest a 15–30% reduction in trauma risk, especially for first-time mothers.

- **Pelvic Floor Exercises:**

Strengthening the pelvic floor improves tissue resilience and reduces the risk of prolapse postpartum.

- **Optimal Nutrition:**

Adequate intake of vitamin C, collagen, and hydration supports tissue elasticity and healing capacity.

2. Intrapartum Techniques

- **Controlled Delivery:**

Slow, guided delivery of the fetal head during crowning reduces pressure on the perineum and prevents tearing.

- **Warm Compresses:**

Applying warm compresses to the perineum during the second stage of labor enhances blood flow, softens tissues, and reduces tearing risk by 25%.

- **Hands-On or Hands-Poised Techniques:**

Hands-on techniques, where the midwife supports the perineum and fetal head, have shown efficacy in minimizing severe tears. However, some studies advocate for a hands-poised approach to allow natural stretching.

- **Selective Episiotomy:**

Routine episiotomy is discouraged. A selective approach, based on medical necessity (e.g., fetal distress), reduces trauma risk while minimizing unnecessary cuts.

- **Labor Positions:**

Upright or side-lying positions during labor reduce perineal strain compared to the lithotomy position.

3. Skilled Healthcare Providers

- **Training Programs:**

Regular training in perineal protection techniques ensures healthcare providers can recognize risk factors and apply preventive measures effectively.

- **Use of Evidence-Based Guidelines:**

Following standardized guidelines from organizations like WHO and RCOG helps minimize variability in care practices and outcomes.

Outcomes of Preventive Strategies

1. Reduction in Perineal Tears:

Studies have shown a significant decrease in third- and fourth-degree tears with the implementation of warm compresses and perineal massage.

2. Improved Maternal Satisfaction:

Women receiving education and preventive care report greater satisfaction with their childbirth experience.

3. Long-Term Benefits:

Prevention of severe perineal trauma reduces the incidence of pelvic floor dysfunction, incontinence, and sexual health problems later in life.

Preventing perineal trauma requires a multifaceted approach that combines antenatal preparation, skilled intrapartum care, and postpartum recovery support. While many strategies are supported by evidence, cultural and institutional barriers can limit their implementation.

Future research should focus on personalized preventive strategies based on maternal risk factors, as well as innovative approaches, such as perineal support devices or regenerative therapies.

Conclusion. Perineal trauma prevention is integral to improving maternal health outcomes and enhancing the quality of life for postpartum women. Evidence-based strategies, including perineal massage, warm compresses, and selective episiotomy, have demonstrated significant efficacy in reducing the incidence and severity of injuries. A collaborative approach involving patients, healthcare providers, and institutions ensures these practices are widely adopted and standardized.

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