



# Interventions to Reduce Risk of Perineal Tearing

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## Abstract

Perineal tearing is one of the most common injuries that can be sustained during vaginal delivery, it can be physically and mentally debilitating for the mother to endure. Preventing this injury can lead to an easier healing process for the mother, allowing her to have a more impactful postpartum journey. There is debate as to whether warm compresses, perineal massage, and alternative birthing positions decrease the incidence of perineal tearing. This review of literature focuses on how these interventions work and if they are effective at decreasing the risk for perineal tearing during vaginal delivery.

## Introduction

Up to 90% of individuals who give birth vaginally will experience some degree of perineal tearing.<sup>1</sup> The perineum is frequently injured during childbirth, these tears range from very mild to severe which can lead to decreased anal muscle tone. Perineal tearing can have complications with lasting effects including incontinence, infection, bleeding, and pain. Additionally, perineal injury can influence sexual life and emotional well-being.<sup>1</sup> Antenatal perineal massages, warm compresses to the perineal area, and various birthing positions have been suggested to reduce the incidence of perineal tearing. Perineal massage causes the perineal muscles to become more flexible allowing the perineum to stretch without tearing. Warm compresses allegedly reduce the risk for perineal tearing by reducing muscle spasms and relaxing the perineum. A 2019 study found that lithotomy and supine positions increase the risk for severe perineal trauma, longer time spent in labor, and increased pain. For this reason, these positions should be avoided unless the mother chooses these positions for her own comfort.

## Methods

### Perineal Massage

Perineal massage applied by a physiotherapist expert in urogynecology and obstetrics is more efficient than self-perineal massages. The proper technique includes multiple rounds of external valvular drainage and pumps. Valvular drainage is a semicircular motion with 2-3 fingers applied to the sides of the vaginal vestibule and external pumps can be described as rhythmical pressures applied to the perineum with 1-2 fingers. These two techniques can be alternated in 3 series of 5 repetitions each and applied more if there is perineal edema.<sup>7</sup>

### Warm Compress

Warm compresses are soaked washcloths in 45°C to 59°C water. The compresses should be changed every 15 minutes to maintain an adequate temperature and good hygiene. The compresses are then placed on the perineum during the second stage of labor in between contractions.<sup>8</sup>

### Birthing Positions

The traditional birthing position of lithotomy was compared to other positions such as standing, lateral and all fours.

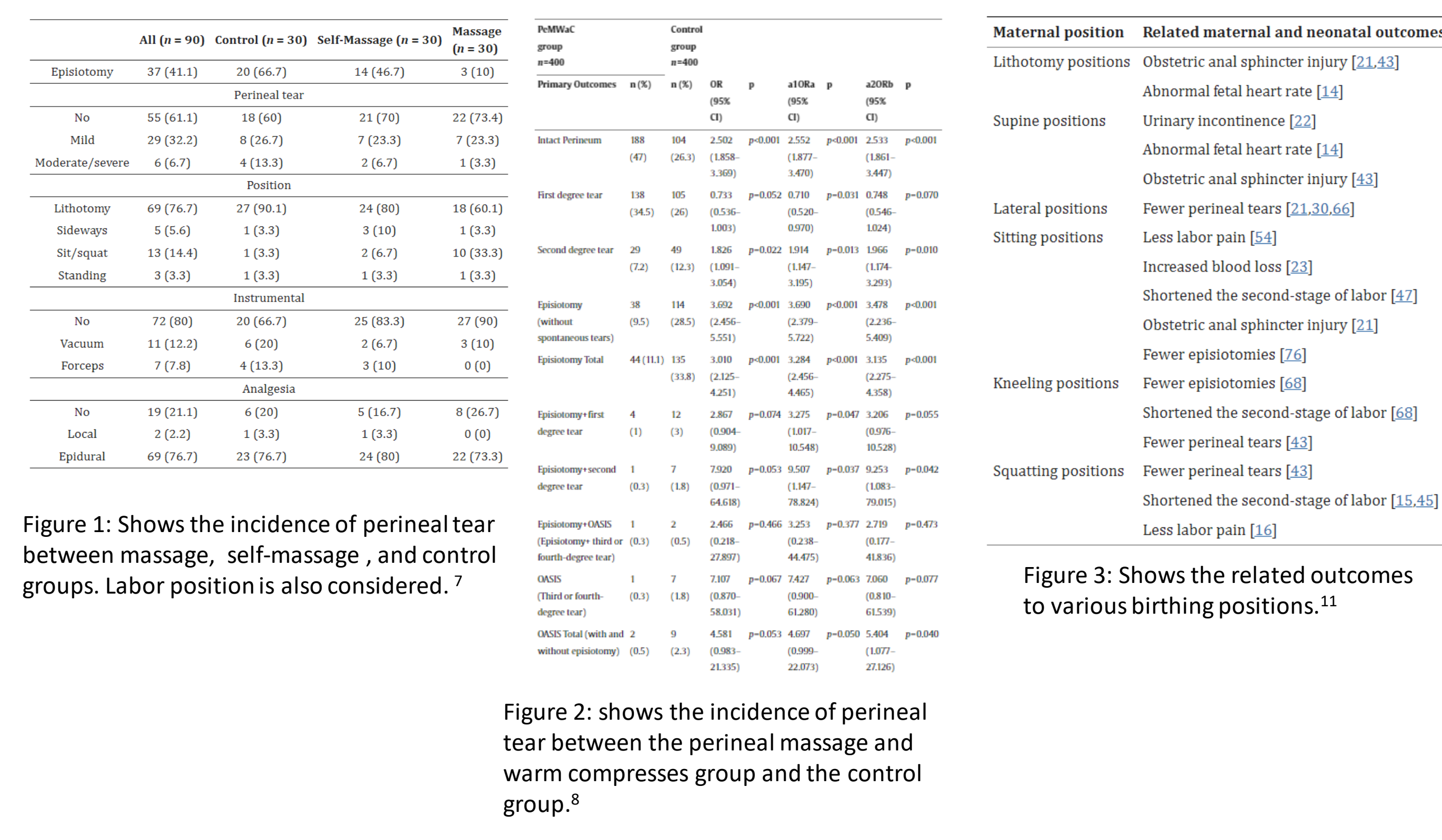


Figure 1: Shows the incidence of perineal tear between message, self-massage, and control groups. Labor position is also considered.<sup>7</sup>

Figure 2: shows the incidence of perineal tear between the perineal massage and warm compresses group and the control group.<sup>8</sup>

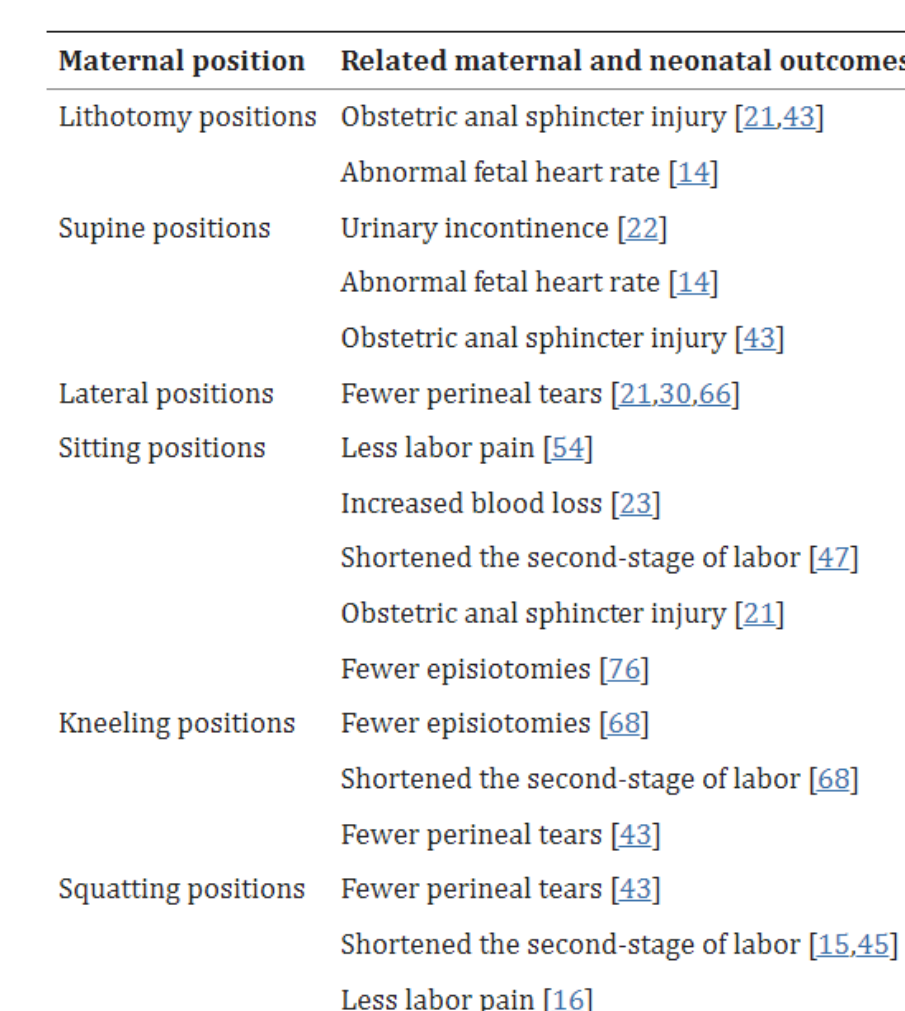


Figure 3: Shows the related outcomes to various birthing positions.<sup>11</sup>

## Discussion & Conclusion

### Perineal Massage

Perineal massage has been found to decrease the risk of perineal tearing.<sup>16</sup> It should be noted that perineal massaging is most effective when done by an educated healthcare professional.<sup>17</sup> However, educating mothers or their partners on proper massage techniques also gives favorable results.<sup>18</sup> Overall, the only downside to perineal massage is if the massager is improperly educated on how to perform the massage, there will be no positive effects.<sup>19</sup> No harm can be caused by any form of perineal massage.

### Warm Compress

Warm compresses to the perineum have been found to decrease the risk of perineal tearing.<sup>20</sup> It should be noted that warm compresses will not harm mothers or their baby. Care should be taken not to make compresses too hot. Warm compresses may also ease mothers and increase their comfort during labor.

### Birthing Positions

Upright and lateral birthing positions have been found to decrease the risk of perineal tearing. These positions make the sacrum more flexible and prepare the pelvis to expand for birth. It should be noted that upright positions may be associated with greater blood loss. However, this may be due to more accurate measurements in upright and lateral positions than in lithotomy or supine birthing positions. Current literature shows lithotomy and supine birthing positions are not preferred for perineal tearing.

## Final Thoughts

Despite the debate, these interventions produce little to no disadvantages. Providers can recommend these interventions to mothers concerned about perineal tearing. Healthcare professionals should strive to improve patient encounters and advocate for patients to make decisions regarding their own health when possible. When it comes to perineal massage, warm compresses, and various birthing positions, the mother's comfort should always be considered during labor. The goal as healthcare providers is to provide mothers and families with a non-traumatic and memorable birthing experience.

## Future Directions

The interventions discussed are still heavily debated. More research done with larger group sizes should be done to find more solid conclusions. Comparisons between the various upright positions should be done to find the most superior position. Additionally, the use of birthing chairs, balls, and other assistive devices could be studied in comparison to various positions. Various massage techniques should be compared to determine if there is one method that yields the best results.

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