***December 10, 2011 — The use of warm compresses on the perineum during the second stage of labor is associated with a decreased incidence of perineal trauma, according to the findings of a new systematic review.***

Vigdis Aasheim, MD, from the Department of Postgraduate Studies at Bergen University College in Norway, and colleagues published their [findings online](http://summaries.cochrane.org/CD006672/perineal-techniques-during-the-second-stage-of-labour-for-reducing-perineal-trauma%22%20%5Ct%20%22_blank) December 7 and in the December issue of the Cochrane Database of Systematic Reviews.

According to the researchers, most vaginal births are associated with some form of trauma to the genital tract, including third- and fourth-degree tears. Interventions evaluated for preventing perineal trauma have included perineal massage, warm compresses, and perineal management techniques.

"No systematic reviews have been published comparing different perineal support and other techniques used during the second stage of labour for reducing perineal trauma," the authors note.

To assess this issue further, the researchers searched several databases, including the Cochrane Pregnancy and Childbirth Group's Trials Register, the Cochrane Central Register of Controlled Trials, MEDLINE, and Cumulative Index to Nursing and Allied Health Literature. Studies published in or before May 2011 were included.

For the analysis, 8 randomized trials, involving 11,651 women and conducted in hospital settings in 6 countries, were included. The participants had no medical complications and were expecting a vaginal birth.

The researchers found a significant effect for the use of warm compresses compared with "hands-off" or no warm compress on the incidence of third- and fourth-degree tears. The risk was reduced by 52% (risk ratio [RR], 0.48; 95% confidence interval [CI], 0.28 - 0.84; 2 studies including 1525 women). They also found a reduction in third- and fourth-degree tears with massage of the perineum vs hands-off, with a risk reduction of 48% (RR, 0.52; 95% CI, 0.29 - 0.94; 2 studies including 2147 women).

Hands-off (or poised) vs hands-on showed no effect on third- and fourth-degree tears, but hands-off was associated with a significantly reduced rate of episiotomy (RR, 0.69; 95% CI, 0.50 - 0.96; 2 studies including 6547 women).

"We conclude that there is sufficient evidence to support the use of warm compresses to prevent perineal tears," Dr. Aasheim and colleagues write. "The procedure has been shown to be acceptable to both women and midwives."

They add, "It showed a reduction in severe perineal trauma and also other benefits, such as reduced pain and reduced incidence of urine incontinence."

The authors point out that the terms hands-on, hands-off, standard care, and perineal support were not necessarily adequately defined, and that the methodologic quality of the included studies also varied. For example, one study defined hands-off as no hand on the perineum and infant's head until the head was born, whereas another study also included no manual assistance for the birth of the shoulders as part of the definition. Yet another definition, the most extreme, meant no hands on the perineum until crowning of the head.

According to the authors, the "question of how to prevent the tears is complicated and involves many other factors in addition to the perineal techniques that are evaluated here, e.g. birth position, women's tissue, speed of birth. More research is necessary in this field, to evaluate perineal techniques and also to answer the questions of determinants of perineal trauma."

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