

Perineal massage in the weeks leading up to delivery helps some women avoid episiotomy

Research question Does perineal massage help reduce perineal trauma?

Answer Yes. Women who massage their perineum during the last few weeks of pregnancy have fewer episiotomies than other women

Why did the authors do the study? Perineal tears and episiotomies are very common during vaginal deliveries, particularly among women having their first baby. Massaging the perineum in the weeks before delivery has been suggested to make the muscles more flexible, allowing them to stretch safely during the final stages of labour. These authors wanted to review all the randomised evidence on perineal massage to find out if it works and, if it does, which groups of women are most likely to benefit.

What did they do? They systematically searched for published and unpublished randomised trials in any language that evaluated perineal massage in pregnant women. They searched established databases such as Embase, Medline, and the Cochrane Central Register of Controlled Trials. They also hand searched journals, hand searched article references, and contacted experts in the subject for ongoing trials.

They found three relevant trials and graded them for methodological quality. The trials included published and unpublished data on a total of 2434 women.

The authors pooled the trials' results to find out if perineal massage had any measurable effect on 16 different outcomes including the risk of perineal trauma, instrumental delivery, perineal pain, incontinence, or painful sex after childbirth.

What did they find? The women in these trials who did perineal massage from around the 35th week of pregnancy were slightly less likely to have perineal trauma needing stitches than other women (relative risk 0.91, 95% CI 0.86 to 0.96). The beneficial effect of massage was almost entirely accounted for by a 15% reduction in the risk of episiotomy (0.85, 0.75 to 0.97) and was largely confined to women having their first baby. Massage did not prevent birth trauma among women who had delivered vaginally before, but it did reduce perineal pain at three months (0.45, 0.24 to 0.87). Only one trial included this subgroup of women.

The authors estimate that overall, 16 women need to do perineal massage to prevent one woman needing stitches (95% CI 10 to 39). The number needed to treat to prevent one episiotomy was 23 (13 to 111).

Perineal massage did not protect women against first, second, third, or fourth degree tears. Nor did it help prevent instrumental deliveries. Perineal massage had no effect on women's sex life after the birth.

What does it mean? Perineal massage, which can be done by pregnant women or their partners, is simple and non-invasive. It seems to work best for women having their first baby, mostly by reducing their risk of an episiotomy. Massaging once or twice a week for about four weeks seems to be enough. The authors say the trials were methodologically good, so their combined results are likely to be sound, although further trials are needed in women who have given birth vaginally before.

Beckmann MM, et al. Antenatal perineal massage for reducing perineal trauma. *Cochrane Database Syst Rev* 2006;(1):CD005123.

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Editor's choice

The ground or the goal posts?

To anyone who has been a medical student, Geoffrey Rose is perhaps best known for saying that a small shift in risk across a whole population will prevent more deaths than treating only those at high risk. The question taxing some of our authors this week is whether this axiom still holds true, and specifically what it means for our efforts to prevent illness and death from coronary heart disease.

Using Canadian population data from the 1990s, Douglas Manuel and colleagues tested three strategies for reducing coronary heart disease (p 659): lowering cholesterol across the entire population; treating only those with raised cholesterol levels; and giving statins to people at high baseline risk regardless of their cholesterol level, which is what the New Zealand guidelines, and others, recommend.

They found that overwhelmingly the most effective strategy was to treat people at high baseline risk. Does this mean that Rose was wrong? Apparently not. Rose said that a population strategy is needed where risk is widely diffused through the whole population. As Manuel and colleagues explain, this is not the case in Canada, where over half the adult population is at very low risk of heart disease and those at high baseline risk account for a large proportion of the total population risk.

Hugh Tunstall-Pedoe and colleagues tackle a related question and come up with an unexpected answer (p 629). They seek to explain the falls in blood pressure observed in 21 countries involved in the MONICA project during the late '80s and early '90s. They conclude that, because blood pressures fell at all levels of blood pressure, antihypertensive treatment in those with high blood pressure is unlikely to have made a big contribution. They can't say exactly what caused the fall in blood pressure, but in passing they conjure the evocative image of the ground (the population) moving under the treatment goal posts.

Taking up the story, Rod Jackson and colleagues (p 617) conclude that population and baseline risk strategies should be followed in tandem, but that the balance will depend on the risk profile of a particular population and the resources available. Low to middle income countries have not yet picked the "low hanging fruit" of population strategies to improve nutrition and cut smoking, so these are likely to reap large benefits in reducing the burden of disease. But even so, they say, this should be combined with targeting people at high risk.

Guidelines are only as relevant as the data they are based on. Current guidelines for lowering blood pressure after stroke are based on data from the PROGRESS trial, a randomised controlled trial in patients recruited from hospital. How applicable are they to treating patients in primary care? Not very, say Jonathan Mant and colleagues (p 635). Stroke patients in their primary care trust were generally older and had had their stroke less recently than the patients in the trial. Building on this, Sharon Micken and Deborah Askew ask what sort of evidence we need in primary care (p 619). The answer is all too obvious. Relevant evidence and plenty of it.

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