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# Q/ Does the presence of a trained support person during labor decrease C-section rates?

## EVIDENCE-BASED ANSWER

A/ **SOMETIMES.** The continuous presence of a support person during labor slightly decreases (by about 2%) the likelihood of a cesarean section (C-section) but only when companions can't be present and epidurals aren't routine (strength of recommendation [SOR]: **A**, a well-done systematic review of randomized controlled trials [RCTs]). When the support person was neither hospital staff nor a member of the woman's social network, C-section was significantly less likely (SOR **A**, a well-done systematic review of RCTs).

## Evidence summary

A 2012 Cochrane review of 22 multinational RCTs with a total of 15,288 patients investigated the effect of continuous support in labor on several outcomes, including C-section.[1] All trials included pregnant women in labor. The study populations were heterogenous in terms of parity; most included only nulliparous women, but some included multiparous women. At least one study incorporated higher-risk groups such as mothers of twins, but several trials limited the study group to low-risk pregnancies.

The review found a small but significant decrease in risk of C-section in women receiving continuous support (absolute risk reduction [ARR]=2%; number needed to treat [NNT]=50; *P*=.0017).[1] The average cost of trained childbirth support in 3 US metropolitan areas in October 2014 was about $875, according to a Web search of established businesses.

### The effect only works in the absence of companions and epidurals…

A subgroup analysis of 22 studies investigated several variables to determine circumstances under which a support person decreased the risk of C-section.[1] The support person's presence was significant only when hospital policy prevented companions (such as the woman's spouse) in the labor room and when epidurals were not routinely available. Eleven of the 22 studies (11,326 patients) permitted a companion; 11 studies (3849 patients) didn't.

When policy allowed companions, the presence of a support person didn't decrease C-section rates significantly (12.7% without support compared with 11.9% with support; *P*=.20).[1] When the woman wasn't permitted to have a companion, however, the presence of a support person significantly decreased C-section (ARR=5.4%; NNT=19; *P*<.01).

In 14 studies, with a total of 13,064 patients, epidurals were routinely available. In the other 8, with 2077 patients, epidurals weren't available.[1] These were older studies or studies conducted in developing countries. When epidurals were routinely available, the presence of a support person didn't affect the C-section rate (13.8% rate without support, 12.9% with support; *P*=.12). But if epidural anesthesia wasn't available, a support person decreased C-section (ARR=8.6%; NNT=12; *P*<.00001).

### …And when the support person isn't a hospital staffer or known to the patient

The Cochrane Review also evaluated different types of labor supporters: companions of the patient's choice from her social network, hospital employees, and people who were neither. The support person conferred significant benefit only when that person was neither hospital staff nor a member of the woman's social network.

Hospital staff members who provided support didn't effectively decrease the C-section rate (12% rate in control group vs 11.3% in supported group; *P*=.28). Support people chosen by the patient likewise didn't successfully reduce C-sections (19.4% control rate vs 15.5% supported rate; *P*=.062). When the support person was neither hospital staff nor someone well-known to the patient, the risk of C-section was significantly lower (ARR=6%; NNT=17; *P*=.0003).

## Recommendations

In a Comparative Effectiveness Review published in October 2012, the Agency for Healthcare Research and Quality investigated 18 strategies to reduce C-section, one of which was psychosocial support from doulas and other providers. A trained support person was the only intervention that showed evidence of benefit in decreasing C-section, but the strength of evidence was low.[2]

An American College of Obstetricians and Gynecologists Practice Bulletin recommends continuous labor support, noting "the continuous presence of a support person may reduce the likelihood of…operative delivery" with no apparent harmful effects.[3] JFP


References

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3. American College of Obstetrics and Gynecology Committee on Practice Bulletins—Obstetrics. ACOG Practice Bulletin Number 49, December 2003: Dystocia and augmentation of labor. *Obstet Gynecol*. 2003;102:1445-1454.