

Advising women with a healthy, uncomplicated, singleton pregnancy on: prolonged standing at work and the risk of miscarriage, preterm delivery and small for gestational age

This advice sheet is based on the findings from a systematic literature review and associated evidence based guideline on the risk of prolonged standing on five specific pregnancy outcomes: miscarriage, preterm delivery, small for gestational age, low birthweight, preeclampsia/gestational hypertension.

This advice does not cover any other potential adverse outcomes of pregnancy and these would need to be considered separately.

Background risk and definitions

- > On average, 6.7% of pregnant women (1 in 15) have a preterm delivery (birth of a baby before the 37th week of pregnancy), whether or not they undertake heavy lifting at work.
- > Around 12% (1 in 8) of all recognised pregnancies in the UK end in miscarriage (loss of a recognised pregnancy before the 24th week of gestation).
- > By definition, 10% (1 in 10) of deliveries are small for gestational age (when this is defined in the standard way as birthweight below the 10th centile on the expected distribution of birthweights by duration of gestation).
- > Prolonged standing is >4 hours/day in total (>6 hours/day for miscarriage).

Added risks from prolonged standing

- > It is uncertain whether or not prolonged standing at work while pregnant puts women at increased risk of miscarriage, preterm delivery or small for gestational age. It is possible that prolonged standing has no effect on these outcomes, but the balance of evidence suggests a small increase in risk for all three outcomes.
- > If risks are increased, then there is very good evidence for preterm delivery and small for gestational age, and limited evidence for miscarriage, that any increase in risk of these outcomes is likely to be small.
- > A best estimate of risk is that there could be:
 - + 1.9 extra cases of miscarriage per 100 pregnancies amongst women standing for more than six hours a day at work,
- + 0.9 extra cases of preterm delivery, and 1.6 extra cases of small for gestational age, for every 100 deliveries among women standing for more than 4 hours a day at work.

It may be easier to visualise these as in the pictures overleaf rather than in numbers.

> There is not enough evidence to draw firm conclusions about the risk of pre-eclampsia and gestational hypertension, although such evidence as exists suggests that risks are probably no more than small.

Other considerations

Keeping active is generally thought to be healthy for pregnant women. This should be taken into account when considering whether, and by how much, prolonged standing during the working day may need to be reduced.

> This guideline has been funded by the Royal College of Physicians and *NHS Health at Work* – the network of occupational health teams dedicated to ensuring that the NHS has a healthy, motivated workforce that is able to provide the best possible patient care.

What this means

- > Because the risks of miscarriage, preterm delivery and small for gestational age are likely to be small, if present at all, we do not recommend a mandatory reduction in prolonged standing at work.
- > If a pregnant woman experiences psychological distress about the risk of miscarriage, preterm delivery or small for gestational age that is not allayed by the explanation of risks
- above, she should be advised to discuss this with her employer and consider reducing prolonged standing at work.
- > In women encountering difficulties at work as the pregnancy progresses, working arrangements and associated symptoms should be reviewed with the employer or line manager and those involved in the employee's obstetric care.



Background risk

Extra cases

Prolonged standing at work and risk of preterm delivery

- > 6.7 women in 100 have a preterm delivery [dark purple].
- > Among pregnant women undertaking prolonged standing at work, an extra 0.9 women may suffer preterm delivery because of prolonged standing [light purple].



Background risk

Extra cases

Prolonged standing at work and risk of small for gestational age

- > 10 deliveries in 100 will be small for gestational age [dark purple].
- > Among pregnant women undertaking prolonged standing at work, an extra 1.6 deliveries may be small for gestational age because of prolonged standing [light purple].



Background risk

Extra cases

Prolonged standing at work and risk of miscarriage

- > Approximately 12 women in 100 with a recognised pregnancy have a miscarriage [dark purple].
- > Among pregnant women who undertake prolonged standing at work, an extra 1.9 women may suffer a miscarriage because of prolonged standing [light purple].



