



Advising women with a healthy, uncomplicated, singleton pregnancy on: **heavy physical workload at work and the risk of miscarriage and preterm delivery**

This advice sheet is based on the findings from a systematic literature review and associated evidence based guideline on the risk of a heavy physical workload on five specific pregnancy outcomes: miscarriage, preterm delivery, small for gestational age, low birthweight, pre-eclampsia/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 have a heavy physical workload.
- > 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).
- > Heavy physical workload: the evidence base in the occupational setting does not permit exact definitions. However, in relation to sustained exertion, the Royal College of Obstetrics and Gynaecology advises that recreational exercise in pregnancy should allow the woman still to conduct a conversation, be “somewhat hard” (on the Borg scale of perceived exertion), should be in a target heart rate range defined by maternal age if aerobic (not >155 beats/minute in 20 year-olds, not >140 beats/minute in

>40 year olds), should not precipitate unusual symptoms (e.g. dizziness, palpitations), and should include warm-up and cool-down phases.

Added risks from heavy physical workload

- > It is uncertain whether or not a heavy physical workload in pregnancy puts women at increased risk of either preterm delivery or miscarriage. It is possible that a heavy physical workload has no effect on either risk, but the balance of evidence suggests a slightly increased risk for both preterm delivery and miscarriage.
- > If risks are increased, then there is reasonably good evidence that any increase is likely to be small.
- > A best estimate of ‘small’ is that there could be:
 - + 1.4 extra cases of miscarriage per 100 pregnancies, and,
 - + 0.7 extra cases of preterm delivery for every 100 deliveries, among women with a heavy physical workload.

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

- > Available evidence does not indicate an increase in risk in relation to small for gestational age, and 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, a heavy physical workload may need to be reduced. >>>

What this means

- > Because the risk of preterm delivery and miscarriage are likely to be small, if present at all, we do not recommend a mandatory reduction in heavy physical work.
- > If a woman experiences psychological distress about the risk of either preterm delivery or miscarriage, that is not allayed by the explanation of risks above, she should be advised to discuss this with her employer and consider reducing heavy physical 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 ●

Heavy physical work and risk of preterm delivery

- > 6.7 women in 100 have a preterm delivery [dark purple].
- > Among pregnant women with a heavy physical workload, an extra 0.7 women may suffer preterm delivery because of this work [light purple].



Background risk ●
Extra cases ●

Heavy physical work and risk of miscarriage

- > Approximately 12 women in 100 with a recognised pregnancy have a miscarriage [dark purple].
- > Among pregnant women with a heavy physical workload, an extra 1.4 women may suffer the event because of this work [light purple].

