

# Diabetes drug may help to prolong preterm pregnancies in women with pre-eclampsia

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Giving the drug metformin to women diagnosed with preterm pre-eclampsia may help to prolong pregnancy (gestation), finds a study published by *The BMJ* today.

The findings show that pregnancy was prolonged by a week in the treatment group compared with the no treatment group, but the result was not statistically significant and therefore points to the need for further study.

If confirmed by future research, this could have important benefits for both mother and baby.

Pre-eclampsia is a serious condition thought to be caused by the placenta not developing properly. Preterm [pre-eclampsia](#) (between 26-32 weeks' gestation) often leads to early delivery, putting babies at risk of serious disability and death, particularly in low and [middle-income countries](#).

Metformin is usually given to patients with diabetes to help control blood sugar levels, but preliminary studies suggest it could also be a potential treatment for pre-eclampsia.

So researchers in Australia and South Africa set out to evaluate whether extended release metformin could be used to prolong gestation in women diagnosed with preterm pre-eclampsia.

The trial took place at a large hospital in Cape Town, South Africa and involved 180 [pregnant women](#) undergoing close monitoring (expectant management) for preterm pre-eclampsia.

Women were recruited between February 2018 and March 2020 when they were, on average, 29 weeks' pregnant. None of them had diabetes or were currently using metformin or any other drugs that might interact with it.

Women were randomly split into two groups (arms): 90 received extended release metformin and 90 received placebo daily, until delivery.

The average time from randomisation to delivery was 17.7 days in the metformin arm and 10.1 days in the placebo arm, an average difference of 7.6 days. However, this difference was not statistically significant.

Two more analyses were carried out. The first (in women who continued to take metformin at any dose) showed an average 9.6 day longer gestation, and the second (in women who took the full dose of metformin) showed an average 11.5 day longer gestation. Both these results were statistically significant.

There were no differences between the two arms in terms of serious birth complications or death among both mothers and babies. And no serious adverse events were observed, although diarrhoea was more common in the metformin arm.

This is a robust and well designed trial, but the researchers acknowledge some limitations. For example, this was a single centre study where the women had a high incidence of HIV, obesity, and chronic hypertension, so the results may not be more widely applicable.

Further trials of metformin should be considered to confirm whether the drug can statistically significantly prolong gestation and to evaluate the benefits to newborns, they say. However, based on the findings of this study, "we are cautiously optimistic that extended release [metformin](#) prolongs gestation in [women](#) with preterm pre-eclampsia."

**More information:** Use of metformin to prolong gestation in preterm pre-eclampsia: randomised, double blind, placebo controlled trial, *BMJ* (2021). [DOI: 10.1136/bmj.n2103](https://doi.org/10.1136/bmj.n2103) , [www.bmj.com/content/374/bmj.n2103](https://www.bmj.com/content/374/bmj.n2103)

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