

# Migraines increase stroke risk during pregnancy

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Women who suffer migraines are at an increased risk of stroke during pregnancy as well as other vascular conditions such as heart disease, high blood pressure and blood clots, concludes a study published on [bmj.com](http://bmj.com) today.

Migraine headache occurs in up to 26% of [women](#) of childbearing age and around one third of women aged between 35 and 39. Although it is very common in this age group, little is known about the prevalence of [migraine](#) during [pregnancy](#).

So in the largest study of its kind, researchers in the United States set out to test the association between migraine and vascular diseases during pregnancy.

Using a national database of over 18 million hospital discharge records, they identified 33,956 pregnancy related discharges with a diagnosis of migraine from 2000 to 2003.

Older women (40 years of age or more) were 2.4 times more likely to have a diagnosis of migraines than women under 20 years of age, and white women were more likely to have a diagnosis of migraines than any other race or ethnicity.

Migraines during pregnancy were linked to a 15-fold increased risk of [stroke](#). Migraines also tripled the risk of blood clots in the veins and doubled the risk of heart disease. Vascular risk factors were also strongly

associated with migraines. These included diabetes, high blood pressure and cigarette smoking.

Even when pre-eclampsia (the most influential factor in relation to migraine) was removed from the analysis, there was little change in the results, suggesting that these are independent associations.

The relation between migraine and stroke was the strongest, and this is consistent with a previous analysis in the same sample of women from 2000-1 which found that migraine was associated with a 17-fold increased risk of pregnancy related stroke. However, stroke in pregnancy is very rare (around four cases per 100,000 births), so this relative increase is not as alarming as it might seem, and these results will not apply to every woman with migraine during pregnancy. Nevertheless, for pregnant women admitted to hospital with active migraines, doctors should recognise and help to reduce cardiovascular risk factors and should treat complications of pregnancy such as pre-eclampsia.

The authors suggest that the most logical explanation for these findings lies in the interaction between migraines and the normal physiological changes during pregnancy (such as increased blood volume and heart rate) which put extra stress on the vascular system.

But regardless of the mechanism, active migraine during pregnancy could be viewed as a potential marker of vascular diseases, especially stroke, they say.

Although cause and effect still need to be established, the results of this study lay the groundwork for future studies related to migraine and pregnancy, they conclude.

Source: British Medical Journal

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