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The BMJ Press Release

Potato consumption before pregnancy linked to diabetes risk during pregnancy

Swapping potatoes for other vegetables or whole grains might lower the risk

Higher consumption of potatoes before pregnancy is associated with greater risk of developing diabetes while pregnant (known as gestational diabetes mellitus or GDM), concludes a study published by **The BMJ** today.

The US-based researchers suggest that substituting potatoes with other vegetables, legumes (such as peas, beans and lentils), or whole grain foods might lower the risk.

Potatoes are one of the world's most commonly consumed foods. US dietary guidelines continue to include potatoes in the vegetable food group and encourage consumption, though previous studies suggest that potatoes can have a detrimental effect on blood sugar levels due to their high starch content.

Gestational diabetes is a common pregnancy complication that has long term health risks for both mothers and babies, but the association between potato consumption and risk of gestational diabetes remains unknown.

So researchers from Eunice Kennedy Shriver National Institute of Child Health and Human Development and Harvard University tracked 15,632 women who were part of the Nurses' Health Study II and who became pregnant over a 10-year period (1991-2001).

They had no previous gestational diabetes or chronic disease before pregnancy.

Consumption of potatoes and other foods was assessed every four years and cases of gestational diabetes were ascertained from self reports of a physician diagnosis of GDM, which was validated by medical records.

Over the 10 year follow-up period, the team identified 21,693 singleton pregnancies of which 854 were affected by gestational diabetes.

After taking account of other risk factors for gestational diabetes such as age, family history of diabetes, physical activity, overall diet quality, and BMI, they found that higher total potato consumption was significantly associated with an increased risk of gestational diabetes.

However, substituting two servings of potatoes a week with other vegetables, legumes, or whole grain foods was significantly associated with a 9-12% lower risk.

The authors point out that potatoes have a high glycaemic index compared with other vegetables, so can trigger a sharp rise in blood sugar levels, and this could be one explanation for the findings.

They also acknowledge several study limitations and say because of the observational nature of their study, no definitive conclusions can be drawn about cause and effect.

However, they conclude: “Higher levels of potato consumption before pregnancy are associated with greater risk of GDM, and substitution of potatoes with other vegetables, legumes, or whole grain foods might lower the risk.”

[Ends]

Notes to Editors:

Research: Pre-pregnancy potato consumption and risk of gestational diabetes mellitus: prospective cohort study

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