

Newly developed, simple test for gestational diabetes

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The increasingly common condition of gestational diabetes can have serious consequences for both the mother and child if left untreated. Prompt diagnosis and therapy can protect against these consequences. A new testing method developed at the MedUni Vienna now makes diagnosis easier and also cheaper.

The new [analysis model](#) for [gestational diabetes](#) is based on a mathematical [risk model](#) and has been developed by scientists at the University Departments of Gynaecology and Internal Medicine III (Gender Medicine Unit) under the scientific leadership of Alexandra

Kautzky-Willer. The new alternative to general screening with a glucose tolerance test is set to significantly reduce the number of tests that women often find quite unpleasant.

In the first stage of the new method, the pregnant woman's fasting [blood sugar level](#) is checked to exclude any manifest disease. Known risk factors from the patient's past medical history are also documented and investigated. "This data allows us to calculate the risk of gestational diabetes very accurately," says Kautzky-Willer. Only if the risk is elevated will the patient possibly need a glucose tolerance test.

Improving existing screening practices

Since 2011, the glucose tolerance test has been a mandatory examination in Austrian maternity clinics (as part of the "mother-and-child-pass" examination). Women often find this test somewhat unpleasant, however. General screening is also not possible in all countries. Gestational diabetes is regarded as a growing health problem, since it is now one of the most common conditions that develop during pregnancy. According to current international figures, around 15 to 20 per cent of all expectant mothers develop gestational diabetes.

Untreated, this metabolic condition can lead to increased insulin excretion in the unborn baby, leading to [abnormal growth](#), increased fat accumulation, [hypoglycaemia](#) and a range of birth complications. The risk of both the mother and child developing type 2 diabetes, hypertension and vascular problems later in life is also raised. Early diagnosis and treatment of gestational diabetes can significantly reduce these complications. Mothers and their children can be monitored and supported in an aftercare programme.

A total of five medical centres across Austria took part in the development of the new testing method. The scientific work behind it

has just been published in the top international journal *Diabetologia*. The Austrian Diabetes Society has awarded a project prize to the study and for the development of new testing methods.

More information: A scoring algorithm including fasting plasma glucose measurement and a risk estimation model is an accurate strategy for detecting GDM. Göbl CS, et al. *Diabetologia* 2012.

Provided by Medical University of Vienna

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