

## Early-warning diabetes test hope

Experts believe a simple blood test could spot diabetes up to 10 years before the first symptoms of the disease occur.

By looking at levels of five amino acids in the blood US researchers were able to correctly identify people who went on to develop type 2 diabetes.

Ultimately the Harvard team hope a test like this could be used to screen for type 2 diabetes, Nature Medicine says.

Early detection can help prevent related complications like blindness. Risk prediction

Dr Victoria King, head of research at Diabetes UK, said: "Early diagnosis and effective management of type 2 diabetes are crucial in reducing the risk of developing diabetes complications, such as heart disease, stroke, kidney failure, blindness and amputation.

"Therefore finding ways to identify those who are at risk of developing the condition are important.

"This research, in future, could lead to ways to help us identify those at risk as well as giving us new insights into how and why type 2 diabetes develops."

The risk of developing type 2 diabetes is strongly linked to being overweight, leading a sedentary lifestyle and eating an unhealthy diet.

In many cases the condition can be prevented or delayed by maintaining a healthy weight and lifestyle, Dr King said.

Aside from keeping an eye on a person's weight and blood sugar, doctors have had little else they can use to identify at risk individuals.

The test used in the study looks for levels of small molecules in the blood. Among the 2,422 health volunteers tested, 201 later went on to develop diabetes.

And the researchers found that the early blood tests readily identified these patients years before they developed any symptoms.

Those with the highest levels of amino acids in their blood were five times as likely to develop diabetes within the following 12 years of the study.

Dr Robert Gerszten and colleagues who carried out the work say more studies are needed before the test could be recommended for general use.

## Diabetes

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Diabetes is a condition where the amount of glucose in your blood is too high because the body cannot use it properly

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Type 1 diabetes develops when the insulin-producing cells in the body have been destroyed and the body is unable to produce any insulin

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Type 2 diabetes develops when the body can still make some insulin, but not enough, or when the insulin that is produced does not work properly

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Type 2 diabetes accounts for between 85-95% of all people with diabetes and is treated with a healthy diet and increased physical activity. Some may also need medication and/or insulin