

■ Test your diabetes risk

By using the German Diabetes Risk Score (GDRS) you can determine your individual risk to develop type 2 diabetes within the next 10 years. The test cannot be used when you already have diabetes.



Information

Type 2 diabetes (also known as adult-onset diabetes or noninsulin-dependent diabetes mellitus) is a metabolic disease characterized by inefficient utilization of the hormone insulin. This causes an increased blood sugar level.

Type 2 diabetes develops gradually over the years. Blood vessels and eyes are already damaged in early stages of the disease. Serious complications arising from diabetes include heart and circulatory diseases, blindness, and kidney failure.

This test was developed by researchers of the German Institute of Human Nutrition Potsdam-Rehbruecke (DIfE). It is based on data from the EPIC*-Potsdam study and was validated in the EPIC-Heidelberg study and the BGS98** cohort, among others.

Please note:

Even individuals with a low risk of diabetes may develop this disease. On the other hand, high-risk individuals may remain healthy.

* EPIC: European Prospective Investigation into Cancer and Nutrition

** BGS98: Bundes-Gesundheitssurvey 1998

Factors that influence the risk of type 2 diabetes

Different factors affect the risk of type 2 diabetes. Some of these factors, but not all of them, can be altered by a change in behavior and lifestyle.

The factors beneath were considered in the German Diabetes Risk Score.

■ Age

The risk of diabetes increases with age. Individuals under 40 years very rarely develop type 2 diabetes.

■ Overweight (waist size)

When excess fat is deposited in the abdomen (waist), there is an increased risk to develop diabetes. Studies have shown that weight reduction can reduce the risk of type 2 diabetes considerably.

■ High blood pressure

Individuals with high blood pressure may have a higher diabetes risk.

■ Diabetes in the family

The risk is higher when biological relatives have or had type 2 diabetes. This increased risk is probably associated with the interaction of genetic and family-specific lifestyle factors.

■ Height

Body height plays a role in abdominal fat (belly fat) distribution so it has an influence on diabetes risk.

■ Physical activity

Physical activity affects the risk of type 2 diabetes in several ways. It helps to maintain a lower body weight and thus the waist size. Physical activity also improves the body's insulin efficacy and thus the regulation of blood sugar levels.

■ Whole grain bread and muesli

Many studies have shown that eating whole grain products, such as whole grain bread and rolls, cereal flakes, grains and muesli, lowers the risk of type 2 diabetes.

■ Meat

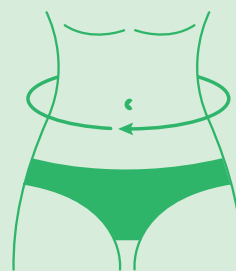
The consumption of red meat, e. g. beef, pork, or lamb, increases the risk of type 2 diabetes. The more you eat these meats, the higher your risk.

■ Coffee

Studies have found a relation between coffee consumption and a lowered risk of type 2 diabetes.

■ Smoking

Smoking has been linked to an increased risk of type 2 diabetes. It can also cause cancer and cardiovascular diseases. It is therefore recommended to quit smoking.



How to measure your waist size: Stand facing the mirror with your feet about 15 cm (6 inches) apart.

Where to measure: Midway between the lower ribs and upper edge of the pelvic bone

Personal test

By using the German Diabetes Risk Score (GDRS) developed by the German Institute of Human Nutrition Potsdam-Rehbruecke (DIfE) you can determine your individual risk to develop type 2 diabetes within the next 10 years.

The test cannot be used when you already have diabetes.

How old are you (years)?

<input type="checkbox"/> < 35	0	<input type="checkbox"/> 55–59	13
<input type="checkbox"/> 35–39	1	<input type="checkbox"/> 60–64	16
<input type="checkbox"/> 40–44	4	<input type="checkbox"/> 65–69	19
<input type="checkbox"/> 45–49	7	<input type="checkbox"/> 70–74	22
<input type="checkbox"/> 50–54	10	<input type="checkbox"/> ≥ 75	25

Are you physically active at least 5 hours a week? (e. g., sport, gardening, cycling)

<input type="checkbox"/> No	1	<input type="checkbox"/> Yes	0
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Have you ever had or do you currently have high blood pressure?

<input type="checkbox"/> No	0	<input type="checkbox"/> Yes	5
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How many slices of whole grain bread/rolls and portions of muesli (1 portion = 3 table-spoons) do you eat daily?

<input type="checkbox"/> 0	5	<input type="checkbox"/> 3	2
<input type="checkbox"/> 1	4	<input type="checkbox"/> 4	1
<input type="checkbox"/> 2	3	<input type="checkbox"/> > 4	0

How often do you eat beef, pork or lamb (not processed meat like hot dogs, bacon, sausage, or salami)?

<input type="checkbox"/> Never or rarely	0	<input type="checkbox"/> 5–6 times per week	5
<input type="checkbox"/> 1–2 times per week	1	<input type="checkbox"/> Daily	6
<input type="checkbox"/> 3–4 times per week	3	<input type="checkbox"/> Several times a day	8

How many cups of coffee do you drink per day?

<input type="checkbox"/> 0–1	3	<input type="checkbox"/> > 5	0
<input type="checkbox"/> 2–5	2		

What is your smoking status?

<input type="checkbox"/> I never smoked.	0
<input type="checkbox"/> I used to smoke on average less than 20 cigarettes a day.	1
<input type="checkbox"/> I used to smoke on average 20 or more cigarettes a day.	5
<input type="checkbox"/> I smoke on average less than 20 cigarettes a day.	2
<input type="checkbox"/> I smoke on average 20 or more cigarettes a day.	8

What is your height in centimeters?

<input type="checkbox"/> < 152	11	<input type="checkbox"/> 176–183	3
<input type="checkbox"/> 152–159	9	<input type="checkbox"/> 184–191	1
<input type="checkbox"/> 160–167	7	<input type="checkbox"/> ≥ 192	0
<input type="checkbox"/> 168–175	5		

What is your waist in centimeters?

<input type="checkbox"/> < 75	0	<input type="checkbox"/> 100–104	24
<input type="checkbox"/> 75–79	4	<input type="checkbox"/> 105–109	28
<input type="checkbox"/> 80–84	8	<input type="checkbox"/> 110–114	32
<input type="checkbox"/> 85–89	12	<input type="checkbox"/> 115–119	36
<input type="checkbox"/> 90–94	16	<input type="checkbox"/> ≥ 120	40
<input type="checkbox"/> 95–99	20		

Have your biological parents been diagnosed with type 2 diabetes?

<input type="checkbox"/> No, or I don't know.	0
<input type="checkbox"/> Yes, one parent has type 2 diabetes.	6
<input type="checkbox"/> Yes, both parents have type 2 diabetes.	11

Has at least one of your biological siblings been diagnosed with type 2 diabetes?

<input type="checkbox"/> No, or I don't know.	0
<input type="checkbox"/> Yes, at least one of my siblings has type 2 diabetes.	6

Add up all the points assigned to your answers. The evaluation sheet will tell you which risk corresponds to your score.

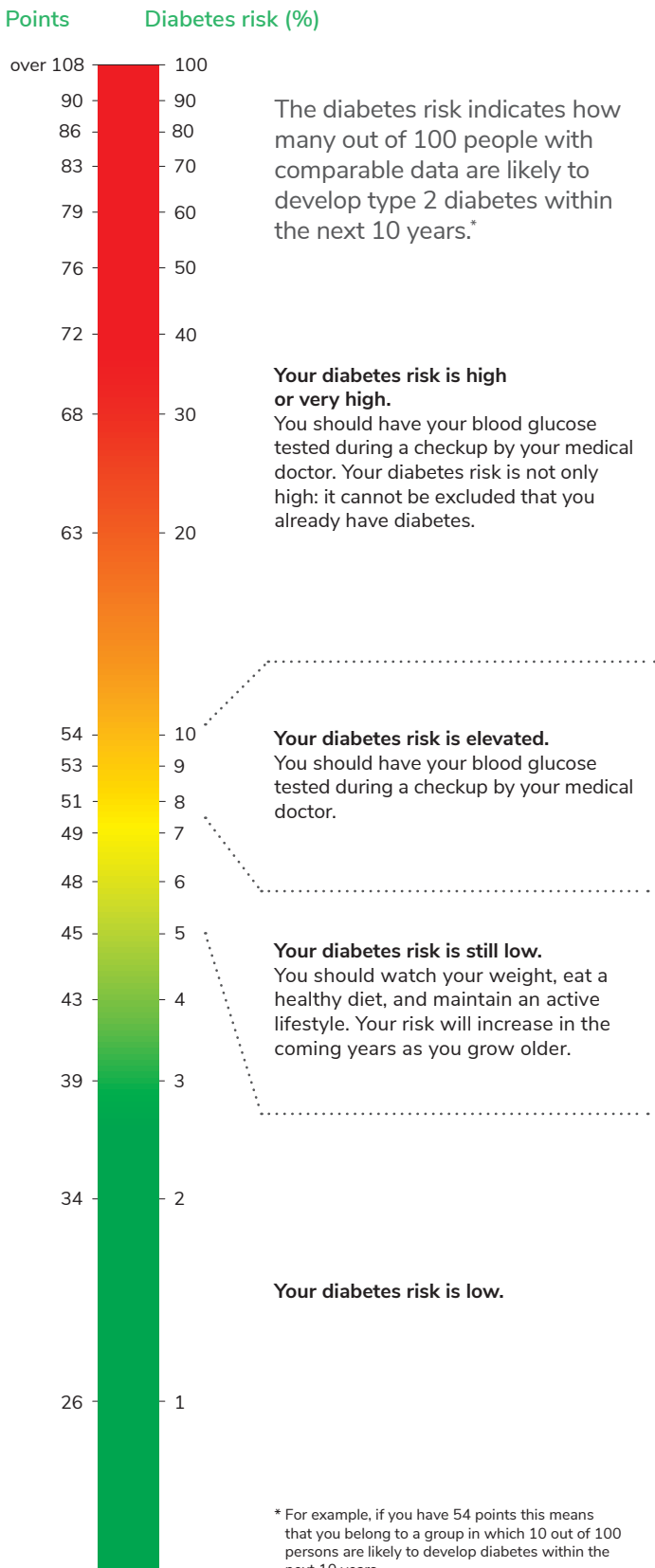
Sum:

Evaluation

This is your estimated diabetes risk

By using the scale shown below, you can correlate your number of points with your diabetes risk.

Please note that individuals with a low risk of diabetes may also develop this disease. On the other hand, high-risk individuals may remain healthy.



Here's how to lower your diabetes risk

You can change some of the factors mentioned in the test by changing your behavior:

Overweight (waist size)

A large waist size is linked to a higher risk of type 2 diabetes. You should try to reduce or at least maintain your waist size. Studies have shown that an even moderate weight reduction can reduce your diabetes risk considerably. In general, the best way to lose weight is to change permanently to a balanced, nutritious diet. Individuals over 65 years of age should consult their doctor before losing weight.

Physical activity

Physical activity at least 5 hours a week will help maintain a lower weight and a smaller waist size. In addition, the effect of the body's own insulin is improved and, thus, regulation of the blood glucose level.

Whole-grain products

Try to give preference to grain products such as bread, bakery products, pasta and cereal products with a high whole-grain content. Many studies have shown that daily consumption of whole-grain foods lowers the risk of type 2 diabetes.

Meat

When eating meat, don't forget that the less beef, pork and lamb you eat, the lower your risk of type 2 diabetes.

Smoking

Smokers should quit smoking because smoking not only increases the risk of type 2 diabetes, but also the risk of cancer and cardiovascular diseases.

Comment on coffee consumption

Many studies have found a relation between regular coffee consumption and a lowered risk of type 2 diabetes. The reason for this is not known. If you like to drink coffee and tolerate it well, there is at present no reason why you should not drink coffee in moderate amounts.