



Website:

www.Doctorharold.com

<https://youtu.be/exBr6f5PV0>

click

Knowing your HbA1c blood test

Transcript:

“Doctor, I am a diabetic, and my HbA1c test my family physician does every six months reveals a reading of approximately 8 percent. How can I bring it down to the normal range below 7%?”

This is an important blood test referred to as glycated hemoglobin (A1C) test, that type 2 Diabetics must get done every three to six months, to find out how well your diabetes treatment plan is working overall.

Diabetes is a serious disease. Following your diabetes treatment plan takes round-the-clock commitment. Careful management of diabetes can reduce your risk of serious — even life-threatening — complications.

Your blood vessels carry in addition to blood, red cells, white cells, platelets, micro-nutrients including sugar as glucose from your digested carbs, among others.

The normal fasting blood sugar in a nondiabetic is less than 100 mg/dl i.e., about 5.5mmol/L.

Fasting levels between 100-125mg/dl is considered prediabetic and over 126, i.e., 7 mmol/L you become a full-blown diabetic.

In terms of the HbA1c test a level of 6.5% or higher on two separate tests indicates that you have diabetes.

An A1C between 5.7 and 6.4 % indicates prediabetes.

Sugar floating in the blood seem to get adhered to the red cells, settling down in the hemoglobin molecule.

Hemoglobin a special protein, containing amino acids is the red pigment containing an atom of iron found in red blood cells.

When you get a recording on your glucometer by pricking your finger and testing the drop of blood on the strip, it estimates the blood sugar level at that moment. The HbA1c test reveals an average blood sugar reading for about three months. This is because the life span of a red cell is approximately three months.

When blood sugar level goes up intake by the red cells also goes up, giving a higher HbA1c level.

Isn't this a God given test to keep your blood sugar level stable all the time?

This test may not be accurate if you are anemic or lost red blood cells or after a blood transfusion, or your red cells life span is shortened to less than 3 months.

The target level of the HbA1c level is 6.5% or below in non-diabetes.

If you have diabetes, your doctor will want to keep the HbA1c level between 7.0% to 7.5% which corresponds to a blood sugar level of about 150 to 170 mg/dl. That would be approximately 8.3 mmol/L. and 9 mmol/L, respectively.

Fasting blood sugar of 8.3 mmol/L will indicate prediabetic levels. In a nondiabetic person the fasting blood sugar is about 100mg/dL or 5.5 mmol/L

The reason why the blood sugar level is kept at prediabetic range, is to prevent getting into hypoglycemic attack by having a lower HbA1c %.

HbA1c stands for glycated hemoglobin, or glycosylated hemoglobin.

The rationale for this test is that when sugar floats in your blood after a meal, it gets attached to the hemoglobin pigment within the red cells in the blood stream, as mentioned earlier. This phenomenon is due to a process of glycation of the hemoglobin.

The more the blood sugar in the blood stream more will get bound to the red cells or the hemoglobin gets more glycated. Once the hemoglobin molecule gets glycated, it remains that was till the expiry of the red cell which occurs approximately 3 months later.

This test shows how well a person's diabetes is being controlled over time.

Glycation means blood sugar getting bound to the hemoglobin in the red cells. Glycosylated hemoglobin is tested to monitor the long-term control of diabetes mellitus. The level of glycosylated hemoglobin is increased in the red blood cells of persons with poorly controlled diabetes mellitus.

How can we bring down the HbA1c percentage within normal range?

Lifestyle changes are necessary if you wish to normalize your blood sugar level.

What happens in your body if the blood sugar level is not controlled?

Consuming moderate amounts of specific types of sugar doubles the production of fat in the liver and lead to development of fatty liver disease and type 2 diabetes, so prevalent among Sri Lankans.

Liver plays a key role in the metabolism of sugar to provide energy for your day's activities.

Fatty liver due to consuming excess amounts of sugar will affect the metabolic activities in the liver.

Some sugars are naturally found in fruits and veggies. They do not harm your liver. It is the added sugar in processed foods we eat contain added sugar to foods and beverages to enhance their flavor or improve food appearance and texture.

These added sugars ruin your liver resulting in nonalcoholic fatty liver disease.

Liver stores part of the sugar absorbed as glycogen, from your digested carbs. When the blood sugar gets low due to poor intake from food, skipping meals or in starvation, the liver supplements the blood with glucose.

The mechanism for this action is by the pancreas secreting glucagon instructing the liver to convert glycogen, making glucose available in the blood stream.

Begin Diabetes Screening at 35 for Obese, Overweight

Overweight and obese people should be screened for diabetes from the age of 35, and such screening should be done regularly until 70 years.

HbA1c blood test would be the simplest and definitive test to be carried out on these patients.

"Screening and earlier detection can help prevent prediabetes and diabetes from getting worse and leading to other health problems,

Kidney disease and blindness are leading causes among diabetes patients, in any country, mostly in the US, and early screening will prevent such complications.

Diet-wise, there is no specific diabetes diet. You need to center your diet on plant-based foods with little meat and more fish, avoid processed foods, refined carbs, and sweets. Check on the carb and sugar levels on the labels on the foods you buy at the supermarket.

Stick to low glycemic foods having low sugar content.

Daily physical activity is important, especially a two-hour brisk walk.

The reason for this is that the blood sugar is more utilized by the liver to produce energy, and your muscles will use more blood sugar to provide energy.

Also, exercising daily lowers your insulin resistance and you will be able to manage your diabetes without much effort.

BY increasing your number of steps in your daily walk you are bound to normalize your HbA1c percentage in your blood, with medication and proper nutritious diet.

Hope this video talk was useful.

Stay safe and Good buy for now.

