Smart-Take

UNDERSTANDING A1C

The A1C test is the primary test used for diabetes management and research. It is a blood test based on the attachment of glucose (also called blood sugar) to a protein in red blood cells (hemoglobin) that carries oxygen. A1C typically lives for three months, so the test provides the average blood glucose levels over the past three months.

The advantage of the test is that it does not require fasting, so patients can have their blood tested conveniently any time of day. A normal A1C level is below 5.7 percent, according to the National Institute on Health. Prediabetes A1C levels are those falling between 5.7 and 6.4 percent.

WHY IS IT IMPORTANT?

Being able to better identify prediabetes enables you and your provider to develop a plan to bring blood glucose levels back under control without moving on to type 2 diabetes. In the newly diagnosed diabetic, accurate measurement helps you maintain a high level of blood glucose control, which can reduce the occurrence of diabetes-related secondary diseases such as high blood pressure, high cholesterol, heart disease, stroke, kidney disease, blindness, and amputation.

IS IT ACCURATE?

Significant improvement in the accuracy of the tests has occurred in the last few years, but most doctors allow for a 0.5 percent variance one way or the other. In addition, there are some circumstances in which the A1C test can be unreliable, so follow-up testing is encouraged for certain populations, including those who have:

- Anemia or who are experiencing heavy bleeding (creates false low)
- Iron-deficiency anemia (creates false elevation)
- Kidney or liver failure
- Hemoglobin variant (people who have themselves, or family members, with sickle cell anemia or thalassemia)

WHEN SHOULD I BEGIN TESTING?

The American Diabetes Association recommends glucose screening (including A1C, fasting blood sugar, or oral glucose tolerance tests) at age 45 or earlier if you are overweight and have other risk factors, including:

- Inactivity
- Family history
- African-American, Hispanic, American Indian, Asian, or Pacific Islander heritage
- Polycystic ovary syndrome
- High blood pressure
- Abnormal cholesterol levels

As always, consult your regular healthcare provider about what's right for you.