

Know your A1c to reduce risk of diabetes complications

By Grace Rose

Take a journey with me and your most recent meal. The hamburger you ate for lunch ended up in your stomach where it was digested into smaller parts such as proteins, carbohydrates and fats. Those nutrients entered into your small intestine where they were absorbed into the blood and used for energy, growth and repair. The carbohydrates that you ate are then broken down into sugars that are carried in the blood.

Hemoglobin A1c is a blood test that measures the average amount of sugar in the blood over a three-month period. This number is reported as a percentage. The higher the percentage, the higher the blood glucose has been.

- A1c average of 4-5.7% for three months is considered normal.
- If the A1c rises to an average of 5.7-6.4%, it is in the prediabetic range. An A1c in the prediabetic range increases the risk of developing diabetes.
- An A1c three-month average of 6.5% and above is in the diabetic range.

For individuals who have been diagnosed with diabetes, A1c is checked generally every 3-6 months. This number helps to direct medical treatment of diabetes. For most adults with diabetes, the goal A1c is below 7%. However, this number should be discussed with your doctor because there are many factors that can influence an A1c goal.

Why does an A1c matter to those who are diagnosed with diabetes?

The A1c helps to tell doctors how much risk a patient has for complications from diabetes. Having an increased A1c means that there is more sugar in the blood. Higher blood sugar can lead to damage in the small blood vessels in your body. This small vessel damage is part of the risk of diabetes.

The small vessels of the eyes, heart, nerves, kidneys and feet can all be affected. Having high levels of sugar in the vessels in the eyes can lead to vision loss and blindness. High blood sugar in the vessels of the heart can cause an increased build up of fat in these vessels which can lead to heart attack.

Nerves can also be affected by high levels of sugar, and they may no longer be able to send pain signals this is called neuropathy. Loss of nerve signals can lead to damage in the feet as they can no longer feel pain signals which places them at increased risk of injury and wounds. Circulation to the feet also is also impaired making it hard for wounds to heal. Non-healing wounds lead to increased risk of infection and amputation.

Kidneys work to filter the blood. When there is excess sugar in the blood it becomes harder for the kidneys to filter the blood leading to kidney disease.

By controlling blood sugar and watching the A1c doctors can provide guidance to help avoid some of these complications. If you are diagnosed with diabetes and would like more information on how to better control your A1c or to see if this testing is right for you, please contact your primary care provider.

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