Hemoglobin A1C Methods

Hemoglobin A1C is a method of blood testing measuring the concentration of blood sugar in the body over a period of time. This is an important method of monitoring progress. The results of Hemoglobin A1C testing educate the patient about success or failure with blood sugar management routines so necessary adjustments can be made. Hemoglobin A1C methods include testing in a lab or at home.

How the Sugar attaches to Hemoglobin
Oxygen it carried in the blood by proteins know as Hemoglobin. Moving through the body Hemoglobin makes contact with blood glucose. Glucose in the body connects with a specific protein called Hemoglobin A. This bonding process mean the hemoglobin is now glycosylated. The more glucose there is in the blood the more sugar will bind to the hemoglobin. This is what is being measured with an A1C test.

Blood Sample
Hemoglobin A1C testing requires a blood sample for a patient who has been fasting for eight hours. Blood sample can be obtained in two ways. The first method is to draw blood from the patient’s vein. The second method is to prick a finger tip with a lancet and extract a drop of blood.

Test Results
A healthy adult not suffering from diabetes will have an A1C result in the range of 4.8 to 5.9% considering a count under 6% to be non diabetic. The American Diabetes Association recommendations for Adults with diabetes states that A1C results of between 6.0 to 7% is excellent control, Hemoglobin A1C results of 7.0 to 8.0% is fair to good diabetes management. An A1C result greater that 8% suggests more intense diabetes management efforts are needed.

Hemoglobin A1C Testing Advantages
Red blood cells have a life span of up to 180 days. A1C blood test calculates how much sugar is attached to red blood cells. With this method the lab technician makes a calculation using the blood sample drawn from the patient of the average concentration of glucose in the blood stream over a period of three months. Hemoglobin A1C testing gives a wider overview of diabetes management progress than daily testing.

Home Hemoglobin A1C testing kits
Hemoglobin A1C testing kits are available for home use. The kit contains a form to fill out, a lancet for drawing blood with a finger prick, a card where the blood sample is applied, and pre-addressed envelope. The blood sample is sent to a lab for prepaid analysis. Hemoglobin A1C test results are returned within a week in most cases. There are several hemoglobin A1C home testing kits available from many different manufactures therefore the process may vary.

Keywords Hemoglobin A1C testing, A1C testing results, home Hemoglobin A1C testing kits

Reference:
Hemoglobin A1C  http://www.tbinet.org/dsm/a1c.htm

Resources
Hemoglobin A1C method  http://www.clinchem.org/cgi/content/full/49/5/829