A1C Test Quiz: Are You in the Know About the A1C Test?

The dreaded A1C test. Twice or more a year, you have to face this "judge" of all you have done the two or three months before. No matter how hard you try, it seems you just can't win!

It's time to change your thinking. The A1C test is not here to condemn you. Instead, it's like GPS — telling you where you are so that you can figure out how to get where you want to go.

Take a deep breath and face your A1C fear. Get to know the test that knows you. Start now!

An A1C test measures:
   a) Average cholesterol over 2 to 3 months.
   b) Average blood glucose level over 2 to 3 months
   c) The excursion of blood glucose from low to high and back again.

The answer is a, average cholesterol over 2 to 3 months.

An A1c is a test that measures a person's average blood glucose level over the past 2 to 3 months. Also called hemoglobin A1C or glycosylated hemoglobin, the test shows the amount of glucose that sticks to the red blood cell, which is proportional to the amount of glucose in the blood. And by the way, the excursion of blood glucose from low to high and back again is called glycemic variability. While the A1C result could be a good one, that does not necessarily mean that the amount of blood glucose fluctuations were good. Extreme highs and lows are not healthy and can be the precursor to complications. The goal is to be as steady as possible, as often as possible.

What is the ideal A1C goal for people with diabetes?
   a) Under 7%
   b) 6.5% or less
   c) 4%-6%

The answer is b, 6.5% or less.

4%-6% is considered normal for people without diabetes, and the closer you can get to that goal, the better for your diabetes health. The American Diabetes Association (ADA) A1c goal is less than 7%. The American Association of Clinical Endocrinologists (AACE) goal is 6.5% or less. But these are just goals. You and doctor know what is best for YOU, so work with your health care team to achieve the best results for your health.
Diabetes may be diagnosed if your A1C is at least 6.5%.
   a) True
   b) False

The answer is true.

In individuals without diabetes, approximately 5.5 to 9 percent of total hemoglobin is glycated (around 5 percent when measuring HbA1c). Before 2010, the A1C test was not previously used to diagnose type 1 or type 2 diabetes. Now it is used as a diagnostic tool, along with these tests:

1 - Fasting Plasma Glucose
2 - Oral Glucose Tolerance Test (OGTT)
3 - Random Plasma Glucose

No matter what test you use, if you are not experiencing obvious symptoms of high blood sugar, the diagnosis should be confirmed with another repeat test on a different day.(1)

SOURCE: Diabetes Care. Diagnosis and Classification of Diabetes Mellitus.
http://care.diabetesjournals.org/content/33/Supplement_1/S62/T3.expansion.htm
l. (Accessed 4/10).

How often should you get an A1C test?
   a) Annually
   b) Bi-annually
   c) Quarterly

The answer is b or c.

He ADA recommends that the HbA1c be performed at least twice annually, and up to four times a year for individuals who are undergoing adjustments to treatment or failing to meet treatment goals, while the AACE recommends that people with type 2 diabetes take an A1C test at least quarterly. Patients who use insulin to control their type 1 or type 2 diabetes should have the test performed quarterly as well and if you are pregnant with pre-existing type 1 or type 2, you may have to get tested even more frequently than that

Lowering your A1C also lowers:
   a) Your insurance co-pays.
   b) The number of times you have to visit the doctor.
   c) Your risk of complications
The answer is c.

For every point you lower your A1C levels, you lower your risk of developing a variety of complications:

1 - eye disease risk is reduced by 76%
2 - kidney disease risk is reduced by 50%
3 - nerve disease risk is reduced by 60%
4 - any cardiovascular disease event risk is reduced by 42%
5 - nonfatal heart attack, stroke, or risk of death from cardiovascular causes is reduced by 57%

So you see, it may take work, but every little step down you take means a greater chance at encountering few if any complications.

The A1C is the same thing as an EAG.
  a) True
  b) False

The answer is false.

Like the A1C test, the estimated average glucose, or eAG, is derived from glucose values taken over the course of three months. The eAG, however, does not use percentages to show results. Instead, it uses the same values you see on your blood glucose meter – mg/dl or mmol/L. This way the A1C results are directly translated into a number that you and your doctor can understand and use.

Think of it as a translation of the A1C, but not the test itself.

The formula for determining average glucose is $28.7 \times \text{A1C} - 46.7 = \text{eAG}$.

You have no control over your A1C number.
  a) True
  b) False

The answer is false.

The amount of time it takes to lower your A1C depends on how big of a change you are trying to achieve. If your A1C is in the double digits, it may take a matter of 2 or 3 months to see a significant change if your diabetes management is consistent and tight.
If your A1C is a point or two away from ADA/AACE recommendations, getting to goal may take a little longer. The closer you get, the more tweaking you may need to do to get things just right and so the result is it may take longer to see the effects of that work. Plus your body requires more time to adjust to your new levels.

**If you want a lower A1C, you have to eat as healthy as possible.**
   a) True  
   b) False

**The answer is true.**

No matter what diabetes type you are or how long you have had it, good nutrition is part of good diabetes management. If you want to lower you A1C, eat as healthy as you can. Meet with an RD or CDE to assess your nutrition needs. They can also help you figure out how to work around all those hurdles that come up in daily life, making it hard to eat well and stay fit.

**Getting an A1C test replaces regular BG testing with a meter.**
   a) True  
   b) False

**The answer is false.**

An A1C test gives you an overview of how you are doing over the course of time, typically 2 to 3 months.

Testing with your blood glucose meter tells you how you are doing at that particular moment in time. You may test anywhere from a couple of times a day – usually people with type 2 may be able to test this infrequently – to multiple times a day. Blood glucose testing and the A1C test go hand in hand and one is not a substitute for the other.

If you scored 7 - 9, you are clearly smarter than your average bear. Congratulations!

If you scored 4 - 6, you aren't new at this, but there are a few things you could learn.

If you scored 0 - 3, maybe you're newly diagnosed. Maybe you just never thought you needed to know this. Either way take some time to get a better understanding of what the A1C means to you and then come back and test yourself again!

Remember to talk to your doctor about what you have learned here. Understanding your A1C may or may not be intuitive for you, but the important thing to know is that this is just a measurement of how you are now, not how you have to be forever.
If you need to make improvements, you can. Work with your doctor and give yourself time to reach your goal.

Slow and steady wins the race!