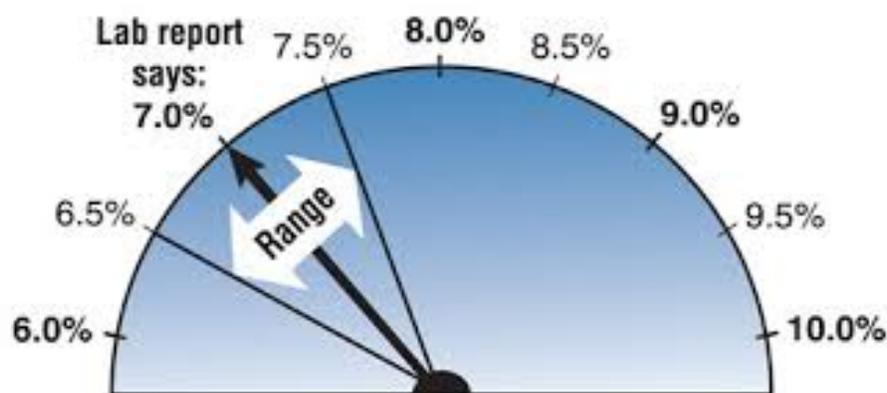


Imagine that you are driving and a well-known speed trap is coming up. This speed trap is well-known because it doesn't give you any breaks. The speed limit is 35 mph and if you go 36 mph—only 1 mph faster—you are going to get a ticket. You don't want to go too fast and risk a ticket, but you also don't want to go so slowly and delay your trip. In this case, you have to rely on the pinpoint accuracy of your speedometer. You know that speedometers are not 100 percent accurate and can be off one way or the other. You could be going faster than the speedometer says, or slower (within an amount of error). For example, when the speedometer reads "35 mph" it might be 35 *plus or minus* 3 mph. To be on the safe side, you decide to drive at 32 mph.

Laboratory tests like A1c vary; like the speedometer example. The A1c is a test that represents average blood sugar over the past three months. The results can be off one way or the other. Your real A1c could be lower than what the lab test says, or higher. Every lab test has some amount of error. Usually that margin of error is not very large. However, different labs have different amounts of error. The speedometer graphic below shows how this might apply to your A1c level. The "speedometer" dial says 7.0. However, many labs use a test where the results can be plus or minus 0.5 percent. Even though the test says your result is 7.0, your real A1c could be anything between 6.5 percent and 7.5 percent. Most of the time, this amount of error is not that important. However, if you are at risk for hypoglycemia, it is important to consider that your glucose levels may be lower than what the A1c shows.

Talk with your clinician to make sure that you both agree on your target A1c.



<http://diabetes.niddk.nih.gov/dm/pubs/A1CTest/>

David C. Aron, MD, MS