What's Your Mag1c Number?

By Gary Scheiner MS, CDE

A few months ago, I had the privilege of traveling to Australia to present at a conference of athletes with diabetes. During the meeting, prizes were awarded to anyone who scored an exact 5.5 mmol/l (99 mg/dl) on their glucose meter. You should have seen it. Anyone who measured close to 5.5 was testing again and again, hoping for that magic number to pop up. Fingers were suffering, but the test strip manufacturers were making out like bandits.

Most of us have a number that we consider "ideal". Mine is 100 on the nose. Any time I hit 100, I do a little celebratory dance that probably elicits rain somewhere in the desert. The target that we choose is actually very important in intensive diabetes management. Any time you take mealtime insulin and make a "correction" dose adjustment for highs and lows, the target blood sugar comes into play. Set a target that's too high and you increase your risk for short- and long-term health problems. Set a target that's too low and you set yourself up for frequent and potentially severe bouts of hypoglycemia. Set a target that's a *range* instead of a number, and you're going to increase the variability of your blood sugars.

So what is the best target?

Blood sugar targets, like most aspects of diabetes management, should be individualized. Setting the right target is all about balancing risks and benefits. We all know that tight control is a good thing. But we have to balance it against the risk of hypoglycemia.

For most of my clients, I like to start with a target BG of 120 mg/dl (6.7 mmol/l) and then adjust the in 10-20 mg/dl (.5-1 mmol/l) increments based on individual risk factors:

Raise Target For:	Lower Target For:
+ Hypoglycemia unawareness + History of severe lows + High-risk work + Unstable angina + Living alone	- Elevated A1c - Pregnancy - Feeling unwell with modestly elevated BG - Fighting complications or infection - Use of CGM with low alert turned on

Sometimes, the decision might be influenced by several factors at one time. We raise, lower, raise, lower, and wind up right back where we started. But that's OK, as long as the target chosen represents a good balance between benefit and risk.

In terms of using a target "range" (which is an option with many insulin pumps), my recommendation is **don't**. When correcting to a range rather than to a specific number, you increase the chances that your next reading will be too high or too low. Ranges are for evaluating your control, not for determining a correction dose.

For example, if you correct your highs down to 160 (9) and your lows up to 80 (4.5), you are less likely to be within the range of 80-160 (4.5-9) the next time you check than if you correct your highs and lows to exactly 120 (6.7). Using a sports analogy (which is about all I know), correcting to a range is like an archer aiming for the outer edges of the target. But correcting to an exact target number is like aiming for the bull's eye. It's obvious who is going to win that contest.

So if you want to be on-target more often, give some serious thought to how you set your blood sugar target.

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And when you hit yours exactly, do a little dance. There are places that really need the rain.

Editor's Note: Gary Scheiner is a Certified Diabetes Educator with a private practice, Integrated Diabetes Services (www.integrateddiabetes.com), near Philadelphia.

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