Intermountain® Healthcare

Diabetes: *5 Key Checks and Measures*

If you have diabetes, you've probably received a lot of information already. You may know about monitoring and medication, about healthy eating and exercise. Hopefully, you've learned the importance of visiting your healthcare provider regularly, too.

But how well do you understand what your provider is looking for at these clinic visits? **This fact sheet explains 5 key checks and measures your provider uses to gauge your health and treatment.** Learning about them can help you and your provider get on the same page about what's important for your diabetes care — and how well your treatment is working to lower your chance of complications.

1. Your HbA1c (also called A1C)

What? Your provider hopes to see your HbA1c at 7% or lower (or at the target set for you).

Why? Your HbA1c test result reflects your average level of blood glucose over the previous 3 months. Your provider knows that your HbA1c corresponds to your estimated average glucose level (eAG) in the way shown in the chart.

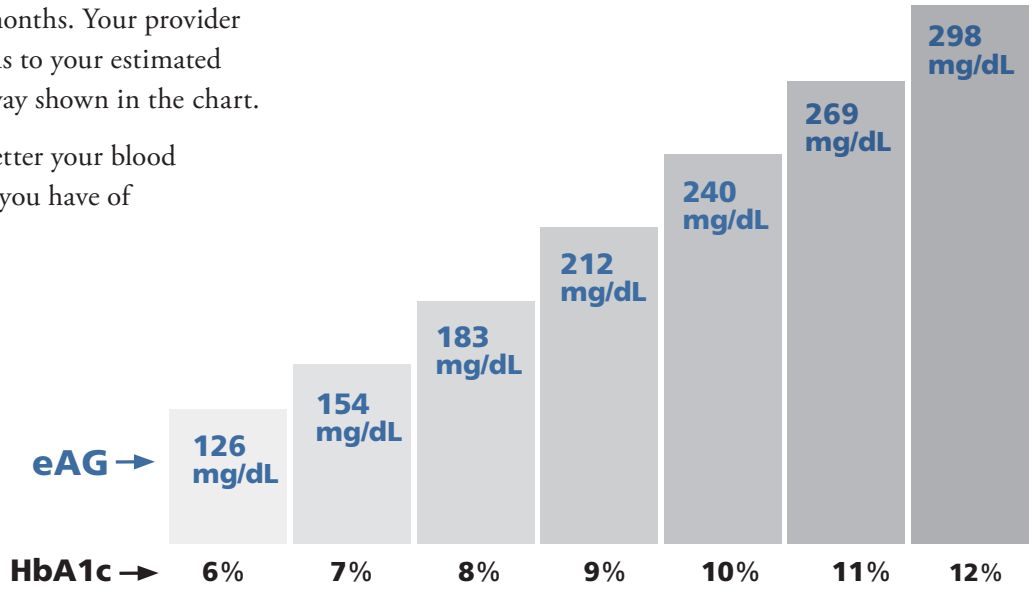
The lower your HbA1c score, the better your blood glucose control and the less chance you have of developing complications.

2. Your LDL cholesterol

What? Your provider will order a blood test to measure the amount of LDL cholesterol in your blood.

Why? Diabetes tends to raise LDL ("bad cholesterol") levels, which can cause fatty buildup inside your blood vessels. This in turn increases the risk for heart attack and stroke. In fact, heart attack and stroke are the most common causes of death among people with diabetes.

The American Heart Association no longer recommends a specific target level for LDL cholesterol. Instead, your provider will consider your cholesterol along with your other risk factors. Based on your risk, your provider may prescribe a cholesterol-lowering medication.



Here's how your HbA1c results compare with your average fasting blood glucose test results.

3. Your blood pressure

What? Your provider will check your blood pressure at every visit, hoping to see numbers less than 140/90 (or the target set for you).

Blood pressure is the force of blood pressing against the walls of your arteries, much like the pressure of water in a garden hose. You need some blood pressure to move blood through the arteries. But if you have too much pressure inside your arteries — for too long — you have high blood pressure (**hypertension**).

Why? Like high blood glucose and high LDL cholesterol, high blood pressure can damage your blood vessels. It makes your heart work harder and increases your chance for serious health problems throughout your body. The good news? Your provider can recommend treatment to bring it down. This can lower your blood pressure and delay or prevent problems such as heart attack, stroke, eye problems, and kidney disease.

4. Your kidney health and care

What? Your provider will check your kidney function or treatment in one of these ways:

- Testing a sample of your urine to see how well your kidneys are working. One common measure is called a urine microalbumin/creatinine ratio. For this test, the target result is less than 30.
- Making sure you've visited a kidney specialist (nephrologist), if that has been recommended.
- Ensuring you are taking any medication for your kidney health. (Blood pressure medications are often used to support kidney health.)

Why? Kidney disease is, unfortunately, a common complication of diabetes. About 20% to 40% of people with diabetes eventually have this complication. Many of these people will need to go on dialysis or have a kidney transplant. Some will die of the disease.

The steps listed above may help your provider prevent kidney disease — or to detect and treat it early on. This can help you live a better and longer life with diabetes.

5. Your eye exam

What? Your provider will want to know the date of your most recent dilated eye exam performed by an ophthalmologist or optometrist. The goal is to have this kind of comprehensive eye exam every 1 to 2 years. **Why?** People with diabetes are at risk for retinopathy, a serious eye disease linked to high blood glucose and high blood pressure. Early detection and treatment can be the key to preventing blindness — which is why your provider wants to ensure you get regular eye exams.

More to measure? Yes.

Diabetes Care Card

Name _____ Phone _____

Date of Diagnosis _____

I HAVE DIABETES...

- If I am acting strangely or cannot be awakened, my blood sugar may be too low.
- If I cannot be awakened or cannot swallow, do not try to give me anything by mouth. Call 911 or get me to a hospital room.
- If I am conscious, give me 15 grams of a sweetened soft drink, fruit juice, or other sugar source (see carbohydrates listed below).
- If I do not recover within 10 minutes, give me another 15 grams of a sugar source and call 911 or send me to a hospital.

TREATING LOW BLOOD GLUCOSE (70 or less)

The following items contain approximately 15 grams of carbohydrate:

- 15 cup fruit juice (orange, apple, grapefruit)
- 15 cup fruit juice (grape, prune, cranberry)
- 15 cup regular soft drink
- 1 cup skim milk
- 2 Tbsp raisins
- 1 Tbsp brown sugar, honey, or corn syrup
- 6 crackers
- 1 pouch bread
- 1 fruit roll-up
- 3 to 5 pieces hard candy
- 3 to 4 glucose tablets
- 1 tube glucose gel
- 15 small gum drops
- 10 jelly beans
- 8 Life Savers®

NOTE: Candy bars, cookies, cakes, and other higher fat options are poor sources of quick energy because the fat slows down absorption of carbohydrates. High-fiber foods (such as apples and many fruits foods) also slow absorption.

BLOOD GLUCOSE GUIDELINES

TIME OF TEST	RECOMMENDED	YOUR GOALS
Fasting	70 to 110	
2 hours after meal	Less than 140	
Before bedtime	100 to 140	

ESSENTIAL DIABETES CARE GUIDELINES

The tests and procedures listed below are essential for good diabetes care. Discuss them with your Diabetes Management Team and use this chart to enter test results and date completed.

TESTS	DATE				
HbA1c (2 to 4 times a year) • Lower risk: ≤ about 7% • High risk: ≥ about 8%					
Dilated Eye Exam (once a year)					
Dental Exam (twice a year)					
Foot Exam (once a year) (Self-Inspect daily, note and inspection)					
Blood Pressure (every office visit) • Lower risk: ≤ 130/80 mm Hg • Target: ≤ 120/80 in some patients					
LDL Cholesterol (once a year) • Target: ≤ less than 100 mg/dL					
HDL Cholesterol (once a year) • Lower risk: ≥ 40 mg/dL • Target: ≥ about 50 for women					
Triglycerides (once a year) • Target: ≤ less than 150 mg/dL					
Urine Microalbumin (once a year)					
Flu Shot (once a year)					
Pneumococcal Vaccine (one time) Repeat at age 65					

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More to measure? Yes.

Keep in mind that these 5 checks and measures aren't the only things your healthcare provider uses to gauge your diabetes control and treatment. And they're not the only things you should pay attention to, either. Stick to your meal and exercise plan, take your medications, monitor your blood glucose as recommended — and stick to the schedule on your Diabetes Care Card for health checks and measures.

To help prevent diabetes complications, keep your eye on the 5…

Talk to your healthcare provider about the checks and measures discussed in this handout. Are you on target? If not, your provider may want to adjust some aspect of your treatment. Use this space to write down notes.

1. **HbA1c:**_____% Change needed? no / yes
   If yes, describe:_____
2. **LDL:**_____mg/dL Medication prescribed? no / yes
   If yes, describe:_____
3. **Blood pressure:**_____Change needed? no / yes
   If yes, describe:_____
4. **Kidney health:**_____Change needed? no / yes
   If yes, describe:_____
5. **Eye exam:** _____Change needed? no / yes
   If yes, describe:_____

Other notes and changes:_____

_____

_____

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