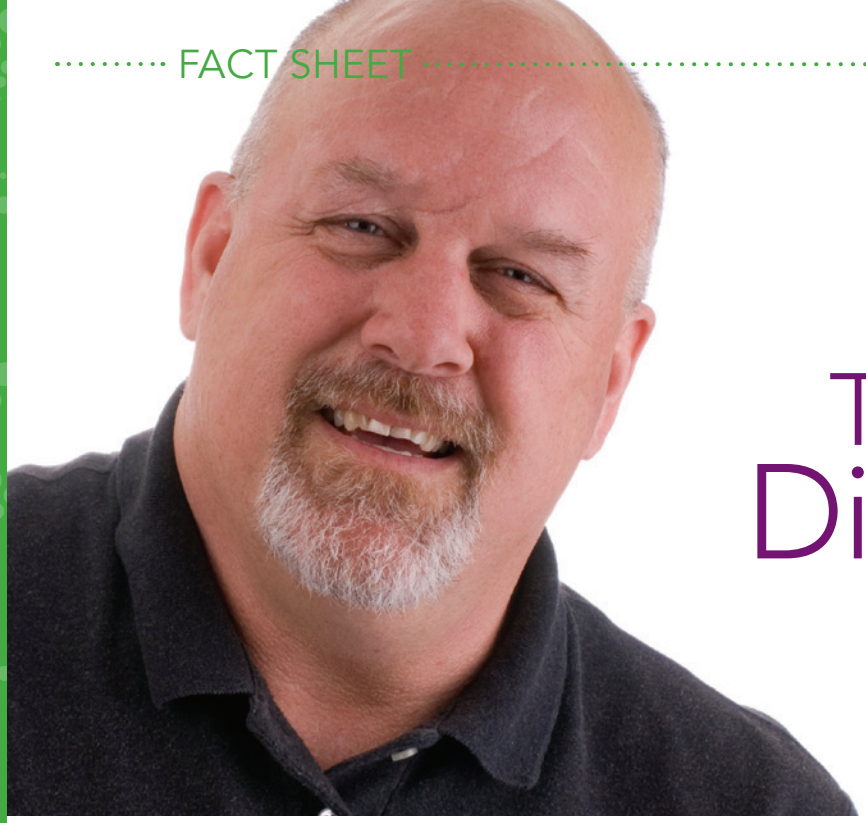
FACT SHEET



Hormone Health NETWORK
Keep your body in balance

Type 2 Diabetes & A1C

WHAT IS TYPE 2 DIABETES?

Diabetes is a disease in which levels of glucose (sugar) in the bloodstream are too high. The body produces glucose from the foods you eat. The pancreas produces the hormone insulin, which allows glucose from the bloodstream to enter the body's cells where it is used for energy. In type 2 diabetes, too little insulin is produced, or the body cannot use insulin properly, or both. This results in a build-up of glucose in the blood.

People with diabetes are at risk for developing serious health problems (complications). If your blood glucose level stays too high for too long, complications can include

- Blindness
- Kidney disease and failure
- Nerve damage that may result in amputation (loss of toes, fingers, or legs)
- Heart attack and stroke

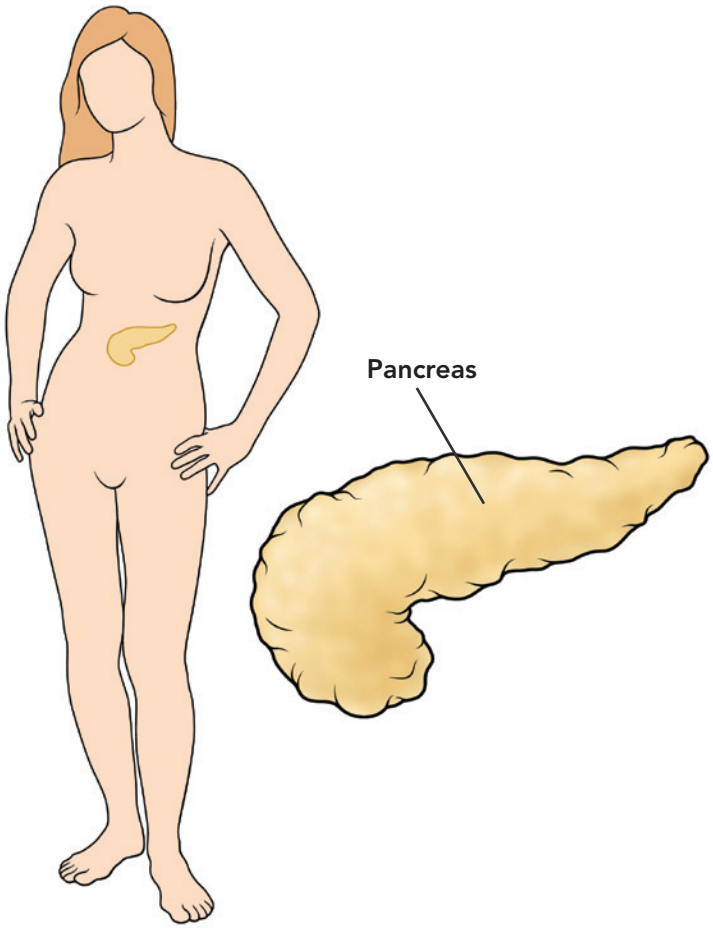
Many people with type 2 diabetes can control their blood glucose levels with diet, exercise, and oral medications (pills). Others may need insulin shots.

DID YOU KNOW?

The results of an A1C test show 'the big picture'—what your average blood glucose level has been over the past two to three months.

WHAT IS AN A1C TEST?

The A1C test is a blood test used to diagnose diabetes and to aid in its management. A level of 6.5% or more indicates diabetes. The test measures your average blood glucose over the past two to three months and shows how well your treatment plan is working overall. It does not take the place of daily blood



glucose measurements, which show the level of glucose in your blood at that moment. Blood glucose levels change throughout the day depending on what and when you eat, whether or not you exercise, and which medications you may be taking.

When there is too much glucose in the blood, the extra glucose enters red blood cells and attaches to hemoglobin—a protein that carries oxygen to the cells of the body—creating glycated hemoglobin. The A1C test works by measuring the percentage of glycated hemoglobin in the blood. The higher your A1C level is, the poorer your blood glucose control and the more likely you are to develop complications of diabetes.

WHAT SHOULD YOUR A1C LEVEL BE?

Most people with diabetes should keep their A1C result below 7 percent (about 170 mg/dL or less). Studies have shown that people who keep their A1C below 7 percent greatly reduce their risks of developing long-term complications of diabetes. An average A1C for a person without diabetes is 4 to 6 percent. Experts recommend that you have your A1C measured at least twice a year.

If your A1C result is:	Then your daily average blood glucose is around: (in mg/dL)
12%	298
11%	269
10%	240
9%	212
8%	183
Target area for people with diabetes	
7%	154
6%	126
5%	97
Source: *Diabetes Care* 31:1473-1478, 2008	

Whether or not you need diabetes medications or insulin, adopting a healthy lifestyle that includes eating well, losing weight if needed, exercising, limiting alcoholic beverages, and not smoking will help you better manage your diabetes.

Questions to ask your doctor

- **What was my latest A1C result?**
- **What does the result mean?**
- **What can I do to keep my blood glucose level on target?**
- **How often should I get the A1C test?**
- **Should I see a diabetes educator?**
- **Should I see an endocrinologist for my care?**

RESOURCES

- Find-an-Endocrinologist: *www.hormone.org* or call *1-800-HORMONE (1-800-467-6663)*
- Find a diabetes educator (American Association of Diabetes Educators): *www.diabeteseducator.org/DiabetesEducation/Find.html*
- Hormone Health Network diabetes information: *www.hormone.org/diabetes*
- National Diabetes Information Clearinghouse (National Institutes of Health-NIH):
  — *www.diabetes.niddk.nih.gov/dm/pubs/A1CTest*
  — *www.diabetes.niddk.nih.gov/dm/pubs/traitA1C*
- National Diabetes Education Program (NIH): *http://ndep.nih.gov/media/KnowNumbers_Eng.pdf*
- The American Diabetes Association: *www.diabetes.org/living-with-diabetes/treatment-and-care/blood-glucose-control/a1c/?keymatch=A1c*
- Mayo Clinic: *www.mayoclinic.com/health/a1c-test/MY00142*

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The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (*www.endo-society.org*). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at *www.hormone.org/Spanish*.

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