Control your diabetes For Life:

Circular 569 E

Know Your Numbers

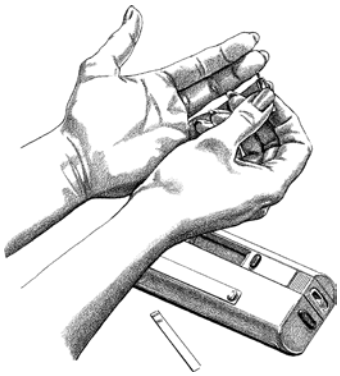
Blood glucose levels kept close to "normal" prevent diabetes complications.

Monitoring is the only way to know how well you are controlling your diabetes .

You cannot tell what your blood glucose levels are by how you "feel."

Day-to-day blood glucose control is measured by a glucose meter.

Long-term blood glucose control is measured by a test called "hemoglobin A1c."



College of Agriculture and Home Economics
Cooperative Extension Service

Raylene McCalman, MS, RD, LD,CDE
Extension Diabetes Coordinator

Martha Archuleta, PhD, RD
Extension Food and Nutrition Specialist

The **Diabetes Control and Complications Trial** (**DCCT**) and other studies have shown that the risk of complications can be less when blood glucose levels are kept close to "normal." For people with diabetes, normal blood glucose levels before eating are 80–l20 mg/dl and usually go no higher than l40 mg/dl after a meal. High blood glucose levels (above l80) for long periods of time can cause damage to the body, resulting in blindness, kidney disease, nerve damage, circulation problems, and amputations.

Monitoring blood glucose is an important way to control diabetes. Just as a car speedometer tells how fast or slow you are traveling, blood glucose monitoring tells where you are with your diabetes control. Monitoring helps you detect high and low blood glucose levels, and allows you to make decisions about food choices, exercise, medications, and stress management. You cannot tell how well you are controlling your diabetes by how you feel. Monitoring is the only way to know how you are doing.

There are two types of blood glucose tests: **finger-stick tests** and the **hemoglobin A1c** or **glycated hemoglobin** test, which is done by your health care provider.

Blood Glucose Monitoring

Day-to-day blood glucose control is measured by finger-stick tests with a blood glucose meter. This type of test, which you can do yourself, tells the actual glucose level in your blood at the time you stick your finger. Ideal results are 80 -l20 mg/dl before meals, and less than l80 mg/dl one to two hours after meals. Women who are pregnant should check with their doctor to set monitoring goals.

Long-Term Blood Glucose Monitoring

Long-term blood glucose control is measured by hemoglobin A1c tests. These tests measure your average blood glucose control over the past three months and should be done at least twice a year, more often if your diabetes is not in good control. Your risk for diabetes complications can be lessened with hemoglobin A1c results of 7 percent or lower.

Finger-stick test tips:

- Your health care provider can teach you how to use a glucose meter. Together you will develop a monitoring plan that includes deciding when and how often to test your blood glucose and setting your blood glucose goals. Check your technique with your provider to make sure you are getting accurate results.
- Testing at different times of the day gives different information about diabetes control, and how your medication, food, exercise and stress level affect blood glucose. The best times to test are when fasting; before meals; one to two hours after meals; at bedtime; before, during and after exercise; and if you are not feeling well.
- Record your test results in a logbook. Make sure you include the date and time of the test and your results. Bring your logbook to all health care visits and review it with your health care provider. Talk with your provider about improving your diabetes control if your blood glucose numbers are too high or too low.

Hemoglobin A1c (HbA1c) test tips:

- Visit your health care provider at least twice a year and ask for a hemoglobin A1c test.
- Ask your provider to explain the test results and help set a goal.
- Keep a record of your test results.
- If your hemoglobin A1c test is too high, talk to your health care provider about ways to improve your diabetes control.

Where to Go for More Information

Your health care provider

American Diabetes Association:
1-800-DIABETES

National Diabetes Education Program:
1-800-438-5383 or visit the World Wide Web at **ndep.nih.gov** or **www.cdc.gov**

Your county Extension office

This publication was made possible by grants from New Mexico State University's Cooperative Extension Service and the New Mexico Department of Health Diabetes Control Program.

Reprinted **Las Cruces, NM**
April 2003 5C

Electronic Distribution April 2003

This publication is scheduled to be updated and reissued Dec. 2005.