Helpful Hints in Choosing a Glucose Meter

A glucose meter is a small machine that works by battery. The meter reads the reaction of your blood with chemicals on a test strip. A number comes up on a small screen to show your blood glucose (sugar) level.

Everyone with diabetes can benefit from glucose testing. The meters are easy to use and can be very accurate if used right. There are many to choose from and your diabetes educator can show you some or you may want to check with your pharmacist.

How do I select a meter?

Look for the features that work best for you when choosing a meter:

- **Size of the meter**
  Meters can be as small as a pen or credit card, but most fit easily in the palm of your hand. The small meter may have a smaller display screen so be sure you are able to read the numbers on the screen.

- **Timing**
  Most meters will give you a result in 3 to 30 seconds.

- **Test strips**
  - You will need to put a drop of blood on or in the test strip to get a glucose reading. Ask about how much blood is needed to fill the strip to get an accurate result. Consider whether you put the blood on the strip or whether the blood is pulled into the strip by placing the strip near the blood drop.
Be sure you are going to be able to open the strips for the meter you choose. Some test strips come in a vial or small bottle and others are each wrapped in foil. There are some strips that are packaged so they fit into the meter and you do not need to handle a strip each time.

Test strips are made for each type of meter. Some of the strips are very small. These may be hard to handle if you have any numbness in your fingers or problems handling small things. Be sure to check how much you need to handle the test strips if this is a concern for you.

### Sites for testing
Most people stick their fingers to get blood for glucose testing. The finger stick is the most accurate measure of your blood sugar. Some meters allow other sites to be used like lower arms, upper arms, or upper or lower legs. If your blood sugars are in your target range most of the time, you may find the option for other sites useful. You should not use other sites if you have low blood sugars.

### Lancing device and lancets
- Most meter kits will come with a lancing device and a small number of lancets.
- The lancets are the needles used to stick your skin to get the drop of blood for testing. The lancing device holds the lancet. Using the device gives you a controlled stick to reduce pain and prevent skin damage. Often the lancing device has an adjustment you can make to change the force of the stick. There may be several sizes of needles that you can use in the lancing device.
- Lancing devices and lancets are also sold separately. If you do not like the one that comes with your meter or you find it hard to use, you can buy another type. Talk to your diabetes educator, pharmacist or doctor to learn more about the lancing devices and lancets.

### Coding
Coding the meter with the strips being used gives more accurate results. Some test strips have the coding built into the strips so the meter is coded with each strip.

For some meters and strips, you set the code in the meter by pushing a button. Others have a coding strip that fits in the meter that you need to change each time you start a new bottle or package of strips.
• **Memory**
  
  ▶ Most meters will store your most recent test results and some meters can store up to 400 test results. Many meters store the date and time, although you may have to program that in at first. Some meters will let you store other information about your diabetes management and show you patterns for your blood sugar results.
  
  ▶ Most meters have software programs available that let you download your meter results into your computer so you can keep track of your results. This may be a feature you would like to use.

• **Battery**

Some meters will use batteries that are easy to find and others may use more specialized batteries. Most manufactures will give an estimate on the number of tests that you can do for the life of the battery. Look at how you take the battery out and replace it in the meter.

• **Cost**

▶ Check with your insurance to see which meter is covered by your plan. Some insurance companies may have you get your meter and supplies from a certain supplier and others may give you a set amount to cover the expenses. Most insurance plans will cover at least part of the cost of the meter and strips. Medicare covers the cost of meter and strips for eligible members.

▶ Most meters will cost $15 to $100. Rebate offers are often available and some companies will take trade in meters. Strips may cost 75 cents to $1 each and this is going to be an ongoing cost. Be sure the strips you buy are for your meter because they are not all the same.

• **Cleaning**

For most meters, you will only need to clean the outside of the meter. This is most often done with a paper towel or small cloth, soap and water. **Alcohol should not be used on the display screen** since it can cloud the screen so you are not able to read the display.
• **Control Testing**

To check the accuracy of your meter, most manufacturers suggest a schedule of control testing. This often requires using a special solution in place of a drop of blood on a test strip. The solution reacts with the chemicals in the strip to give a reading. The bottle of control solution will have a range marked on the bottle or on a paper in the box. If the reading falls in the range, the machine is working correctly. The control solution often expires several months after it has been opened.

• **Other features**

  - Each meter will have an owner's manual that will give you directions on how to use your meter. Be sure to keep it so you are able to refer to it if you have a problem with your meter.
  - Some have online support available through a website and all have a 1-800 number as a help line. The help line is printed on the back of the meter and in the owner's manual.
  - Most meters will have a warranty. You will need to fill out a card or call in to register your meter.

**How can I learn more about glucose meters?**

Your doctor, diabetes educator, other nurses and your pharmacist can talk with you about the meters available. Many pharmacies have the meters on display so you can see them to compare features.

*Diabetes Forecast* magazine has an issue each fall that reviews the different products available for diabetes management, including meters, lancets, and lancing devices. Many public libraries have this magazine or you can also check with your local diabetes organization.

**How do I learn to use my meter?**

Training on the use of your meter should be done with a diabetes educator or your doctor, nurse or pharmacist. Your test results will only be as accurate as your technique. If you are sloppy or do not follow the directions for your meter, your blood sugar results will not be accurate. Read the owner's manual. Give yourself a little time to practice and you will soon see how easy it is to check your glucose with your meter.
Is there anything else I need to know about using a glucose meter?

Learning to use your glucose meter correctly is the start. Keeping a record of your test results is key in helping you and your diabetes team manage your diabetes. By having a written record of your blood sugars, you can start to see patterns in your readings. The record lets you know whether the changes you make to your meal planning, exercise and medicines are working to control your blood sugars. Using your meter to test your glucose lets you see how stress, illness and day-to-day living impacts your glucose readings.

For most people with diabetes, we suggest a target range of 70 to 130 for blood sugar results before meals and several hours after eating. Talk to your diabetes educator or your doctor to help you learn more about your pattern of blood sugars or to ask any other questions you have about glucose testing.

Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.