Blood Glucose Monitoring and Diabetes
The importance of monitoring

Choosing the right meter

Most blood glucose meters are similar in performance, but vary in specific features such as size of visual display, test time, calibration/coding procedure, amount of blood required and data management. People with diabetes select meters based on their individualized needs, ease of use, and cost.

Before selecting a blood glucose meter, ask yourself a few questions:

• Is the meter easy to use?  
• Are the numbers on the display easy to read?  
• Are the meter and test strips easy to handle?  
• Are the strips packaged in an easy-to-open strip vial?  
• What type of battery does the meter require?  
• Does the meter have adequate memory?  
• Can you upload your meter results to a computer?  
• Is there a toll-free customer support phone number available?  
• Are the test strips affordable?  
• Is there a lifetime warranty for the meter if it breaks?
Blood glucose monitoring is a critical component of every diabetes management plan. Regular self monitoring provides information how your daily management plan is working to control your blood glucose levels. You and your healthcare professional can evaluate your glucose results to determine if adjustments need to be made in your diabetes management plan to help you achieve optimal glucose control.

**Blood Glucose Targets**

**ADA recommendations***:

- **Before meals (preprandial)**: 70-130 mg/dL
- **1-2 hours after the beginning of each meal (postprandial)**: Below 180 mg/dL

* For non-pregnant adults with diabetes

Benefits of regular blood glucose monitoring include:

- Achieving a better understanding of diabetes and how to optimize glucose control.
- Recognizing patterns in blood glucose levels, and developing problem solving skills to maintain levels within your target range.
- Preventing the occurrence of high and low blood glucose levels.
Determining how often you should test

You and your healthcare team will work together to determine how often you should monitor your blood glucose levels. Frequency of monitoring is individualized and depends on the type of diabetes and the treatment regimen. A recent consensus of healthcare professionals made these recommendations.

### Treatment Regimen

<table>
<thead>
<tr>
<th>Treatment Regimen</th>
<th>Frequency of Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple insulin injections or pump therapy</td>
<td>Three or more times a day</td>
</tr>
<tr>
<td>Less frequent insulin injections and/or oral pills</td>
<td>Test as often as necessary to meet your target goals</td>
</tr>
</tbody>
</table>

* Standards of Medical Care in Diabetes, 2012, American Diabetes Association
If you are newly diagnosed and are taking diabetes medications, then your healthcare professional may recommend that you test more frequently so you can evaluate whether your diabetes management is working to normalize your blood glucose levels.

Whether you are monitoring three or four times a day, it is good practice to vary your monitoring schedule. This gives you a more complete picture of your blood glucose levels at different times per day and during different situations. The more frequently you monitor, the more information you will have to review with your healthcare professional.

Agree how often you should monitor your blood glucose with your healthcare team. Fill out your testing schedule below.

<table>
<thead>
<tr>
<th>Day of Week</th>
<th>Example of Testing Schedule</th>
<th>My Testing Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>Before breakfast and dinner</td>
<td></td>
</tr>
<tr>
<td>Monday</td>
<td>Before breakfast; two hours after lunch</td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>Before breakfast; two hours after lunch</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>Before breakfast; two hours after lunch</td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>Before breakfast; two hours after lunch</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>Before breakfast; two hours after lunch</td>
<td></td>
</tr>
<tr>
<td>Saturday</td>
<td>Before breakfast, lunch and dinner</td>
<td></td>
</tr>
</tbody>
</table>
Review your log book to identify specific patterns in your blood glucose results. If you notice a pattern of high or low blood glucose results, discuss these with your healthcare professional. Together, you and your healthcare professional can review your diet, exercise and medication regimen to determine the cause of these high or low glucose results. Illness and stress can affect your blood glucose levels. When documenting your blood glucose results in your log book, make a note if you are sick or feeling stressed. Blood glucose monitoring provides you with useful information to help you feel your best, so you can live a healthy and active lifestyle.

There's no point in testing unless you understand the results!
Managing your blood glucose

Nipro Diagnostics provides all users of our monitoring systems with a free log book, which lets you record your results and make notes of the things that may be affecting your blood glucose levels.

In this example Stacy has type 2 diabetes and is testing before and after meals. Her target range is as follows: before meals, 90-120 mg/dL; after meals, less than 140 mg/dL. When looking at Stacy’s log book you can see that her blood glucose results before breakfast and lunch are within her target range, but her glucose results after her lunch and before and after her dinner meals are too high. By reviewing your results in this way, you will be able to focus on areas of poor control and consider changes to improve your blood glucose control. Always consult with your healthcare professional before making any changes in your diabetes management.