Blood Glucose Monitoring

Monitoring blood glucose levels (BGLs) is really important to help your child to manage their diabetes. Keeping a record of BGLs helps you to look for patterns to determine insulin dosage and adjustments for various activities and stages of growth.

When to Test?
Your child’s doctor and diabetes educator will tell you how often and when to test your child’s BGL. Most children and teenagers test before meals, at bedtime, when they are playing sport, when they have a low blood glucose level (hypo) or when they are not feeling well.

Blood Glucose Meter
There are a number of blood glucose meters on the market for you and your child to choose from. The meter should be maintained according to the manufacturer’s advice and calibrated regularly. A drop of blood from a fingerprick is required for blood glucose and ketone testing.

Blood Glucose Test Strips
There are blood glucose test strips that match each blood glucose meter. Your child should join the National Diabetes Services Scheme (NDSS) in order to receive subsidised prices on strips. It is important to make sure that the strips are in date. You need to re-code the strips each time you open a new box.

Fingerprickers/Lancets
Your child will need a fingerpricker with a lancet attached to obtain the drop of blood to test their BGL. Your educator will advise on the best device for your child, depending on their age.

To perform a BGL:
1. Remove the meter from its case
2. Remove the strip from its container or remove the strip from its packet
3. Place the strip in the end of the meter
4. Prepare the fingerpricker
5. To prevent false readings, wash the child’s hands before testing
6. Apply the fingerpricker to the side of the top of a finger
7. Press the button so that the lancet enters the skin, which will produce a drop of blood
8. Apply the drop of blood to the strip
9. Wipe the blood off the finger with a tissue
10. Once there is enough blood the meter will start its countdown
11. Once the fingerprick and test is completed dispose of the used strip in the garbage
12. Write the reading down in the record diary
13. If the reading is below 4mmol/L treat as a hypo - refer to the hypoglycaemia fact sheet. Sometimes children can experience hypo symptoms at a level over or around 4mmol/L – they should still be treated for a hypo.

14. Replace meter and fingerpricker in the case.

**Ketones**
High levels of glucose in the blood and a severe lack of insulin leads to the breakdown of fats for energy. As a result chemicals called ketones build up in the blood and urine. Ketones are a sign that things are out of balance and more insulin is needed. You should always test for ketones if the BGL is above 15mmol/L. You should contact your diabetes team immediately if this situation arises.

**Ketone Test Strips**
There are two methods of testing for ketones – by testing blood or by testing urine:

**Blood Ketone Test Strips**
There are meters available to test blood for ketones that may be more convenient for children and teenagers. The same drop of blood to be tested for glucose can be used to test for ketones. Different strips are used for testing glucose and ketones. The blood ketone strips are currently not covered by the NDSS.

**Urine Ketone Test Strips**
Ketone testing strips are still available to test for ketones. A sample of urine must be obtained and tested. Children usually hold the strip in their urine stream as they go to the toilet. These strips are subsidised through the NDSS.

**Diabetes Record Book/Diary**
It is important for you and your child/teenager to record BGLs in a diary. This will show you patterns of BGL’s that will assist you and your diabetes team to adjust insulin doses and plan appropriate management.

**Sharps Disposal**
All used syringes, pen needles and lancets should be placed in an approved sharps container available at some pharmacies and Diabetes Australia-NSW. Many pharmacies and councils have special provision for disposal of these containers when full. If your local council has no such provision, your hospital or clinic may be able to help.

**HbA1c or Haemoglobin A1c**
This test measures overall blood glucose control over the previous two to three months and should be carried out every three months at your child’s clinic visit. It gives your doctor important information about long term blood glucose control.

For more information phone 1300 136 588 website: www.diabeteskidsandteens.com.au
Need an interpreter?

A free telephone interpreter service is available for people who may have difficulty in understanding or speaking English. This service is available through the Translating and Interpreting Service (TIS) of the Department of Immigration and Multicultural and Indigenous Affairs (DIMIA). TIS have access to professional interpreters in almost 2000 languages and dialects and can respond immediately to most requests.

Accessing an interpreter:

1. Simply dial 131 450 for the Telephone Interpreting Service.

2. Explain the purpose for the call e.g. wanting to talk to an educator/dietitian at Diabetes Australia.

3. The operator will connect you to an interpreter in the required language and to a Diabetes Australia health professional for a three-way conversation.

This free service has been set up by Diabetes Australia and will be promoted with assistance from the Australian Government Department of Health and Ageing.