DIABETES

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What is Diabetes?

- Diabetes is a condition where there is an increase in blood glucose in the body due to decreased insulin secretion by the pancreas, decreased insulin sensitivity or both.

There are two types of diabetes:

Type 1 Diabetes:

- Type 1 diabetes is when the body destroys its own cells that are responsible for producing insulin. This type of diabetes tends to have a genetic influence.

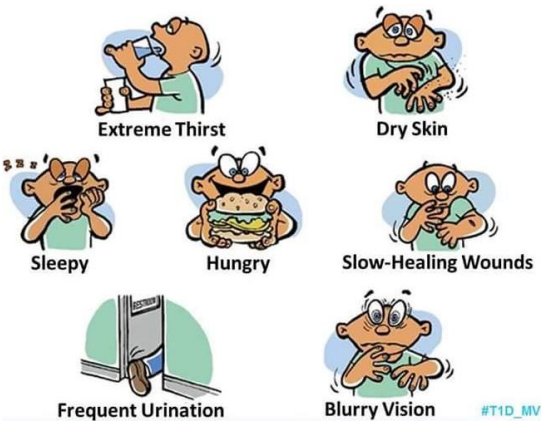
Type 2 Diabetes:

- Type 2 Diabetes is the more common type of Diabetes. In this type, the body is both insulin resistant and insulin deficient. Type 2 is highly associated with obesity, physical inactivity, family history and presence of other comorbid conditions.

How to monitor?

- Self-monitoring of blood glucose (SMBG) is done with a glucose monitor.
- Glycosylated hemoglobin (HbA1c) is done through periodic blood work at a lab or with an at-home HbA1c test.

Signs of high blood sugar:



Signs of low blood sugar:

Type of Diabetes	Fasting/Upon Waking	Before Meals/pre-prandial	After meals/post-prandial
Type 1 and Type 2	80-130 mg/dL	80-130 mg/dL	80-180 mg/dL

Preparing to test:

- Set up (calibrate) the meter if needed. Recalibration is required if a new package of strips is being used, meter was dropped, or the glucose readings seem inaccurate.
- To ensure better blood circulation before pricking, wash hands vigorously with warm water, mild soap and dry them.
- Make sure the test strips are not expired.
- Be sure to clean the site where you will be pricking. Some monitors allow for alternate site testing but fingertips are the most accurate.

Testing Procedure:

1. Get a blood sample using a lancing device and a new lancet to get a drop of blood.
2. Apply the blood to the test strip when the blood droplet symbol appears on the meter screen. Make sure the blood channel is completely full to ensure an accurate reading. If the channel isn't full add more blood within 5 seconds to the same strip. Start again with a new strip if an error message appears on the meter. Results with appear on the meter screen.
3. Record results regularly to track your progress.

How to get a glucose monitor?

- Some glucose monitors are covered by insurances. Ask your doctor for a prescription.
- Some monitors can be bought over the counter from a local pharmacy.
- You may also contact your health insurance provider and they may send you a monitor free of cost!

Things to consider when getting a glucose meter:

- Audio capability
- Display lighting
- Memory
- Size and handling
- Cost of test strips
- User coding
- Wireless functionality

Types of Monitors:

1. Monitors for daily monitoring
   - These meters are most commonly seen in pharmacies. With these meters, you apply a blood sample to a test strip and the glucose level is detected by the meter and displayed on the screen. Some common examples include Freestyle, Contour, One Touch, etc.

2. Continuous Glucose Monitors
   - Continuous glucose monitors (CGMs) provide a range of your glucose readings by taking readings every few minutes periodically throughout the day. However, the monitoring sensor must be implanted under the abdominal skin. To ensure the CGM is monitoring accurately you may also want to test by pricking your finger from time to time.

References

- American Diabetes Association Available at https://professional.diabetes.org/diapro/glucose_calc. Accessed October 9, 2018.
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- Preece J. What Type of Glucometer is Best for You? Available at https://www.dignifyed.com/best-glucometer-type-for-you-review-45.html. Published December 27, 2017. Accessed October 13, 2018.

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