

A Glucose Test

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Purpose:

Having a normal glucose level is important. Insulin resistance can happen for a variety of reasons. This can be problematic because when body cells, like muscle, liver, and fat cells stop responding well to the hormone insulin, more insulin is required, which can lead to type 2 diabetes. Living with diabetes is more difficult than taking measures to prevent diabetes. This is why it is important to monitor your glucose levels. This experiment allowed us to measure the blood glucose of someone with no history of diabetes, a predisposed individual to diabetes, and a person with diabetes.

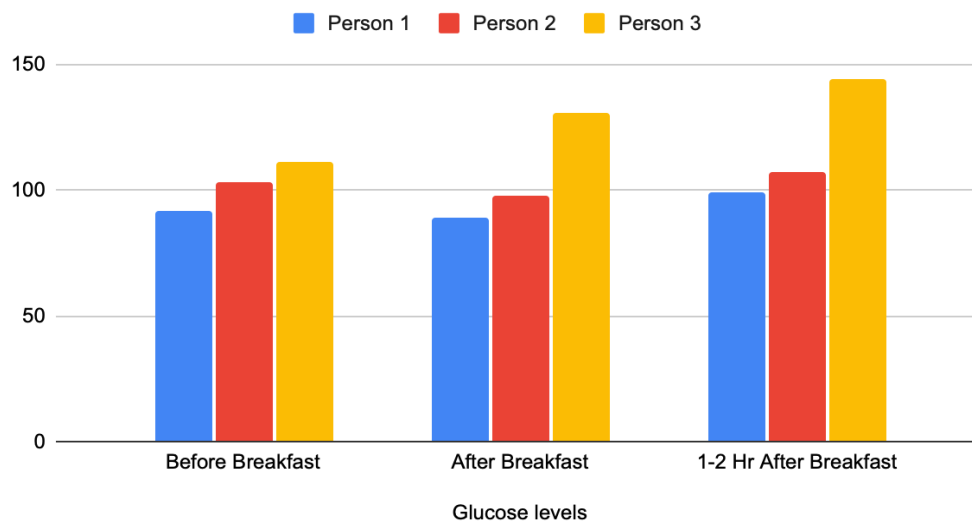
Procedure:

Using a blood sugar monitor:

1. First thing in the morning, before having any food, measure each individual's blood glucose level.
2. With the blood sugar monitor, turn on and insert strip. Clean the individual's finger with the alcohol pad and wait for the finger to dry. Prick each individual's finger with different needles and use different strips with each person and record.
3. Give each individual the same food (for them they ate ½ cup of scrambled eggs and ham alongside coffee and half a piece of toast with strawberry cream cheese). Wait five minutes and repeat step 2.
4. Don't eat for 1-2 hours and then test again following step 2.

Results:

Glucose Levels Over Time



Person 1: No history of diabetes - Person 2: A history of diabetes- Person 3: Currently with diabetes

Discussion:

It was interesting to see that for the people who do not currently have diabetes, after immediately eating, the blood glucose went down. Afterwards, it did go back up though. At first, I thought it was because the subjects might have eaten too much but it was less than what they normally ate so I didn't think that was the reason. However, I did read that the increased consumption could have been a reason just because sometimes when you eat too much, the body makes an excessive amount of insulin. Either way, I didn't necessarily think in this scenario that eating too much was the cause.

Conclusion:

In conclusion, it was good to see three people monitor their glucose levels. For the person with diabetes, it was good to see that their glucose is under control. For the person with a predisposed history, it was important for them to see that they started off high and made them realize they should keep monitoring their glucose levels. As for the person with no diabetes history, they were normal and hopefully they stay normal. Overall, it was a good reminder of the importance of monitoring blood glucose for their own health.