

Name:

OL Lab 1: Carbohydrates: The sugars that feed us

Learning Objectives:

- Understand the molecular structure of sugars and polysaccharides
- Understand digestion and appreciate the complexity of the human body
- Experiment with different foods and measure their impact on the blood sugar level

Since carbohydrates are the preferred source of energy, these are an essential part of our diet. Grains, fruits, and vegetables are natural sources of both soluble and insoluble carbohydrates. The insoluble part is known as fiber, which is mostly cellulose.

In this simulation, you will learn how carbohydrates are digested and learn how different food types affect blood glucose levels in a virtual test subject. An in-lab molecule visualizer will help you to study the chemical structure of sugars and learn the basics of molecule structures and chemical formulas. You will perform a real experiment to understand the action of amylase on starch.

Will you be able to use the data from the simulation to figure out how foods can affect blood sugar levels in the body?

Part 1: Complete Labster- Carbohydrates: The sugars that feed us

Part 2: Report and Reflection

Purpose: Describe in your own words and in complete sentences, the purpose of this experiment.

The purpose of this experiment is to understand how the GI tract works and the process of which carbohydrates are broken down and absorbed.

Observations: List 2 observations you have made in this simulation.

The longer you chew food the farther down you break down the sugars in it.

Bodies that are incapable of creating insulin have no way to break down sugars on their own.