

The Perfect Pancake



What's Going on Inside?

A perfect pancake is all about texture, flavor, and appearance. Sugar is one of the main contributors to the formation, flavor, and appearance and changing the sugar can make a difference. Sugar keeps the pancake moist and preserved as sugars hold moisture much longer. Changing the sugar also changes the formation of the outside from either being a hard crispy shell-like surface to a nice soft and fluffy pancake.

Preparation

1. With a skillet, set the heat to 240 degrees Fahrenheit and spread butter on the surface
 2. With a medium-sized bowl, add 1 ½ cups of all purpose flour and combine it with 3 ½ teaspoons of baking powder, one teaspoon of salt, and 1 ¼ tablespoons of brown sugar
 3. Whisk the combination until all of it is blended together
 4. Combine the mixture with 1 ¼ cups of milk, 1 egg, 1 teaspoon of vanilla extract, and 1 ½ tablespoons of soft butter
 5. Whisk the combination to a smooth batter
 6. Pour the batter on the skillet (3" wide circle)
 7. Let the pancake cook for about 1 minute until bubbles form on top and have a golden brown color then flip it to cook the other side
 8. Let the other side of the pancake cook for about 1 minute until a golden brown color forms
- Tip: scrap the bottom of the pancake to separate it from the skillet for a better view on the pancake***
9. Remove the cooked pancakes off the skillet and place on a plate to cool off and enjoy your pancakes!!!

Ingredients

8 Pancakes

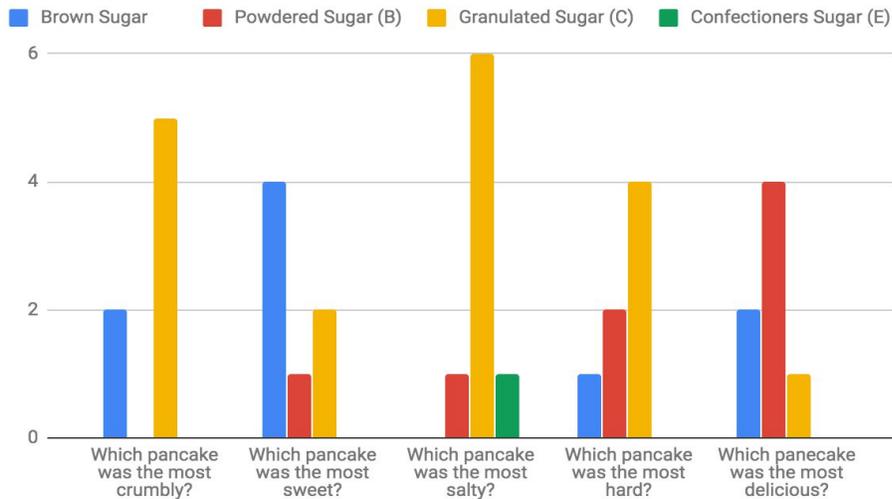
- **1 ½ cup of all purpose flour**
 - Flour provides a formation when baking or cooking something. Inside the flour are proteins and when they get in contact with moistness, they form gluten, expanding outward and upward. It is also used as an agent for thickening something as it is gluten when wet.
 - Formula: $C_6H_{10}O_5$
- **3 ½ teaspoons of baking powder**
 - Baking powder is a starch and acid base material and when it comes in contact with a moist substance, it expands releasing carbon dioxide.
 - Formula: $NaHCO_3$
- **1 teaspoon of salt**
 - Salt is used for many things for cooking or baking. The main obvious reason is taste however behind the chemistry of a pancake, the salt activates the other flavors into the batter to make it more flavorful and can balance out the sweetness so it is not too sweet.
 - Formula: $NaCl$
- **1 ¼ tablespoon of brown sugar**
 - Sugar is a common ingredient in pancakes and the obvious reason is the flavor. However, sugar is used for formation. It forms a layer on the outside to be hard and keeps the pancake moist and preserved as sugar keeps on the outside hard and preserved when sugar comes in contact with liquids.
 - Formula: $C_{12}H_{22}O_{11}$
- **1 ¼ cup of milk**
 - Milk is a fat agent that creates a fluffy texture to the pancake, soft, and creamy.
 - Formula: Changes with different kinds of milk
- **1 egg**
 - Eggs provide the main structure ingredient to pancakes and hold all of the gluten for it to form. Eggs are also a flavoring agent that provides a cream as well.
- **1 teaspoon of vanilla extract**
 - Vanilla extract is used in baking to simply add that delicious flavor and to sweeten it up a little.
 - Formula: $C_8H_8O_3$
- **1 ½ tablespoon of butter**
 - Butter is a fattening agent and is used not only for that creamy flavor but used for fluffing up the pancake and to blend all of the other ingredients together.

Ready in 15 minutes

8 Pancake servings

The Experiment

In this experiment I tested 4 pancakes cooked all the same however, I changed the type of sugar that is required to bake the pancakes so instead of putting 1 ¼ tablespoon of regular granulated sugar, I changed it up by putting powdered sugar, granulated sugar, brown sugar, and confectioners sugar. I conducted a blind test for 7 different people and asked them all the same questions regarding the pancake and the first survey was asking general questions about the pancakes themselves.



The second survey was asking simply which one was their favorite and least favorite.

