

Greasy Chips

Research Question

Do Lay's potato chips have more grease than other chip brands?

Methodology

- Grab a few chips from one of the chip bags and put them on the scale to weigh them.
- Make sure that the weight is in the range of 0.5oz and 1.0oz (put more chips or take some chips from the scale to get the right weight).
- Put the chips in the middle of the graph paper.
- Cut off another piece of wax paper and cover the graph paper with chips on it.
- Grab the rolling pin and gently crush and roll the chips into tiny pieces (You can tape the graph paper to the table to make it easier).
- Leave the chips and paper there for one minute.
- Count all the squares that have grease on them and write it down for each piece of graph paper.

Data Analysis/Results

Chip Variety	Grams of Fat	Squares With Grease
Lay's Classic	10	Around 668
Lay's Kettle Cooked	9	Around 795
Pringles Original	9	Around 325
Ruffles Baked	3	Around 82
Cape Cod Sea Salt and Vinegar	5	Around 524

Interpretation/Conclusions

In conclusion, I observed the amount of grease on different types of potato chips to see which one is truly healthier. I didn't expect to see as much grease as I did on the graph papers. My hypothesis was that Lay's Classic potato chips would have the most grease. My results did not support my hypothesis since Lay's Kettle Cooked potato chips had more grease than Lay's classic chips.

Introduction

I wanted to test different brands of potato chips to see which one has the most grease. If I can figure out which brand is healthier, it might help myself and others. My hypothesis was that Lay's Classic chips have more grease than other chip brands since Lay's chips have the most grams of fat. My results did not support my hypothesis. The Lay's Kettle Cooked chips had just a little bit more than the Lay's Classic chips. I have learned about what brands of chips are healthier than Lay's chips and will use this information to help me choose what types of chips I should get next time for a quick snack. In my next experiment, I will use more healthy chips to figure out which one is the healthiest of all.

One of the most popular snacks in America are potato chips. Although potato chips are selling in other countries, no country eats them more than the United States does. One study shows that about 85 percent of Americans enjoy potato chips, which is quite a lot. If that's not bad enough, by far one of the most popular chip brands in the world, Lay's, is quite unhealthy. Lay's will probably be the most popular chip brand in the whole world for a very long time.

You may ask "Why are potato chips so bad?". Potato chips have many things that affect your health. Most chips are high in calories and grams of fat which could raise the risk of obesity and cause weight gain. Potato chips also have low nutritional value which means it's not that good for a daily meal. Chips are also high in cholesterol because they are deep fried which creates trans fats.

The amount of grease in chips also affects its fat and health. The well-known and loved potato chips can cause weight and health problems for people. Potato chips also help the rate of obesity in America. 70.7 percent of Americans have obesity which is very high. This is a bad problem that affects a lot of people's health. Even with all these negatives, there are some healthier alternatives for potato chips.

Question/Problem and Predictions

Do Lay's potato chips have more grease than other chip brands?

My hypothesis is that Lay's Classic potato chips have more grease than the other chips because they have more grams of fat listed on their nutritional facts label than the other chips.

Investigative Methods and Procedure

Variables

Independent Variable: The potato chip brand/style

Dependent Variable: The amount of grease

Experimental Groups: Lay's Classic, Pringles Original, Lay's Kettle Cooked, Ruffles baked and Cape Cod Sea Salt and Vinegar.

Materials:

- A variety of different potato chips
- A rolling pin
- Graph paper
- A kitchen scale
- Parchment (non-stick) paper or wax paper
- Tape
- Sticky notes (optional)
- Something to write with (optional)

Procedure:

- Get a piece of graph paper and put it on the table (if it's too big or small you can tape or cut pieces of graph paper).
- Cut off a piece of wax paper and cover the kitchen scale with it.
- Grab a few chips from one of the chip bags and put them on the scale to weigh them.
- Make sure that the weight is in the range of 0.5oz and 1.0oz (put more chips or take some chips from the scale to get the right weight).
- Put the chips in the middle of the graph paper.
- Cut off another piece of wax paper and cover the graph paper with chips on it.
- Grab the rolling pin and gently crush and roll the chips into tiny pieces (You can tape the graph paper to the table to make it easier).
- Leave the chips and paper there for one minute.
- After one minute has passed, take off the wax paper and throw it in the trash along with the chip pieces.
- Take the paper and tape it to a well light window.
- If done correctly, you should see something on the paper that kind of looks like a stain (some chips might be so low in grease that it's hard to see it).
- If you're doing this multiple times, then you could put a sticky note saying what brand of chips have been experimented on, so you don't forget.
- If you're doing this multiple times then, do the same procedure for the other chips (make sure that you make the weight of the chips the same for each chip brand).
- Count all the squares that have grease on them and write it down for each piece of graph paper.



Results and Data Visualization

Chip Variety	Grams of Fat	Squares With Grease
Lay's Classic	10	Around 668
Lay's Kettle Cooked	9	Around 795
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Discussion and Interpretation

There were a few parts of the results that I didn't expect to see. I was surprised to see Lay's Kettle Cooked potato chips be the one with the most grease since the Lay's Classic potato chips had more grams of fat labeled on the nutritional facts label. I also didn't expect to see such a difference between Pringles Original potato chips and Lay's Kettle Cooked potato chips since they also have the same number of grams of fat labeled on the nutritional facts label. The Baked Ruffles also surprised me by how little grease there was when I lifted the wax paper. The reason the chips have vastly different amounts of grease is most likely because of the way they're cooked/baked. Baked chips will almost always be the chips with the least amount of grease and kettle cooked will almost always be the chips with the most grease.



Implications and Ideas for Future Research

In conclusion, I observed the amount of grease on different types of potato chips to see which one is truly healthier. I didn't expect to see as much grease as I did on the graph papers. My hypothesis was that Lay's Classic potato chips would have the most grease. My results did not support my hypothesis since Lay's Kettle Cooked potato chips had more grease than Lay's classic chips. I will use this new information for future snack decisions and inform family and friends.

References

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- [What Are the Negative Effects of Chips? \(sfgate.com\)](https://www.sfgate.com/health/article/What-Are-the-Negative-Effects-of-Chips-12345678)
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