

A top-down photograph of a white bowl filled with milk and cereal loops. The cereal is partially submerged in the milk. Overlaid on the center of the bowl is the title text.

Cereal Killer

Staying Alive for Breakfast



Introduction

I have been an overweight man my entire life. This has always been a struggle for me because I Love to eat. I love food and usually unhealthy food, However one of my favorite things to eat is cereal. All kinds of cereal, from Froot Loops to Raisin Bran to Cap'n

Crunch, I eat it all. Over the last 2 years I have worked very hard to lose more than 80 pounds. I am still far away from my weight goal so I make every effort to eat as responsible as possible. Because of this I try to know what I am eating. Since cereal is such an important part of my eating cycle, I thought I would try to answer 2 questions:

- Which brands makes the healthiest and least healthiest cereals?
- For Each nutritional component, Which cereal is most helpful and which is most harmful?

The Data

The data set comes from Kaggle.com and consists of 80 cereals with 15 columns:

- Name: Name of cereal
- Mfr: Manufacturer of the cereal
- Type: Hot or Cold
- Calories: Calories per serving
- Fat: Grams of fat per serving
- Fiber: Grams of dietary fiber per serving
- Sodium: Milligrams of sodium per serving
- Carbo: Grams of complex carbohydrates per serving
- Sugars: Grams of sugar per serving
- Potass: Milligrams of potassium per serving
- Vitamins: Vitamins and Minerals (0,25, or 100 % FDA recommended)
- Shelf: Display shelf (1,2, or 3, counting from the floor)
- Weight: Weight in ounces of one serving
- Cups: Number of cups in one serving
- Rating: Rating of cereals based on their "Healthiness"



Correlations



We can see from this heatmap that the biggest influences of the rating was the lack of **sugars**, the lack of **calories** and the presence of complex **carbohydrates** and **fiber**.



Good vs Evil

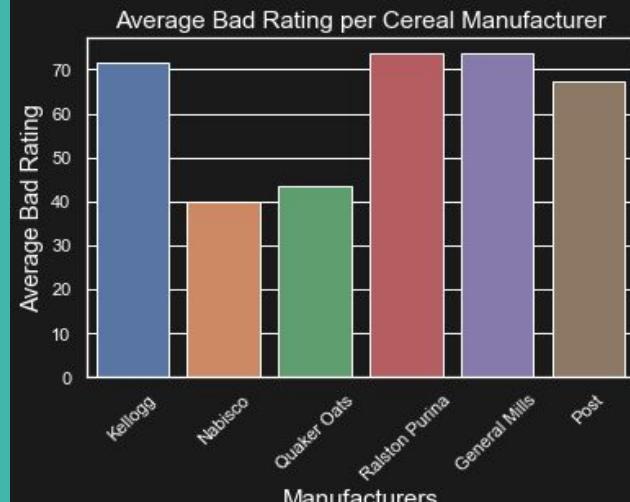
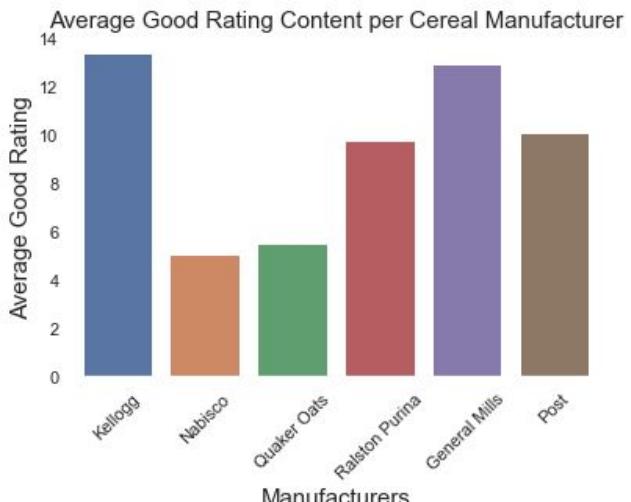
The data was sorted into good and bad feature groupings and averaged.

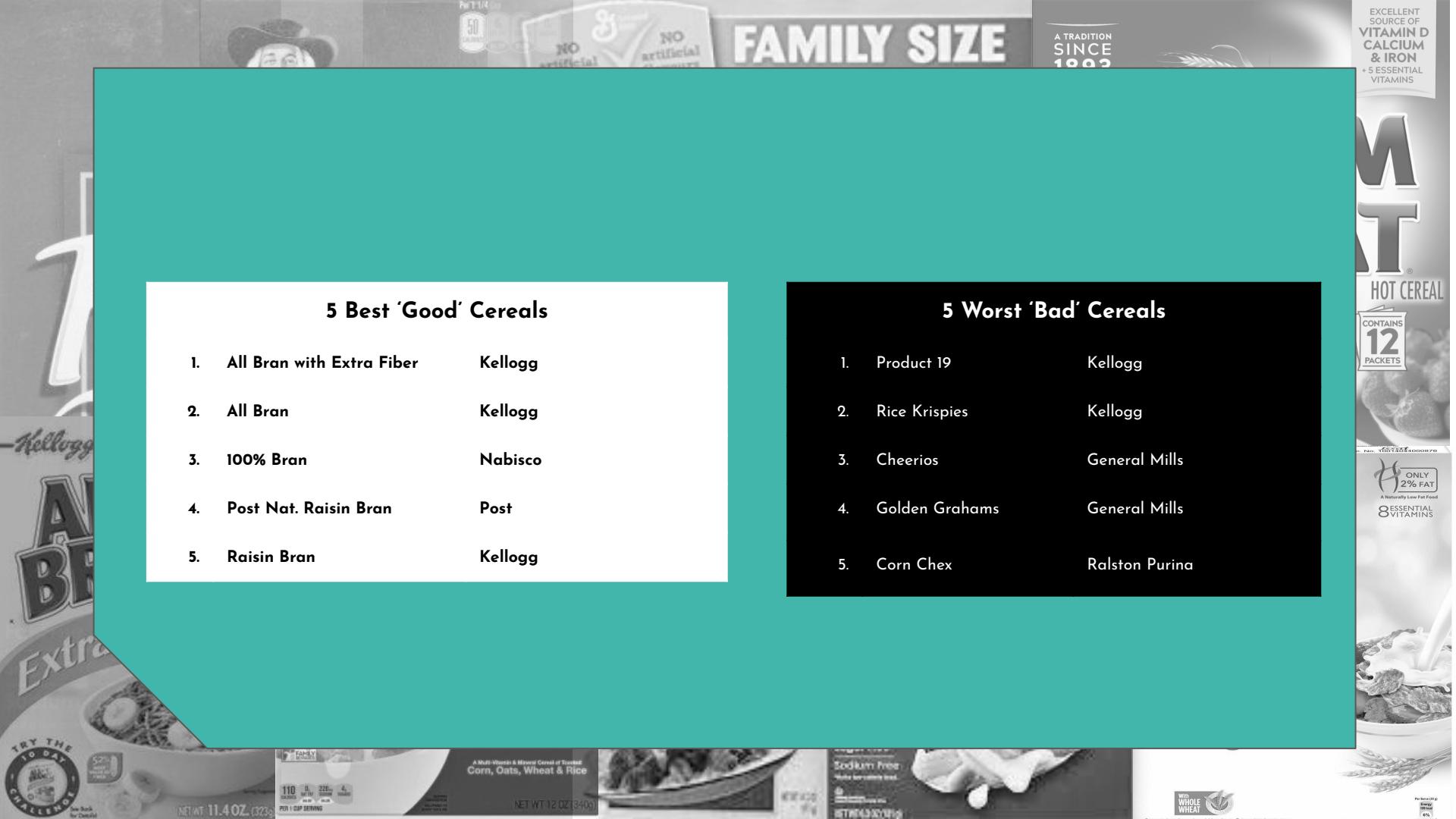
The Good:

- Protein
- Potassium
- Vitamins

The Bad:

- Sugars
- Carbohydrates
- Fat
- Sodium
- Calories





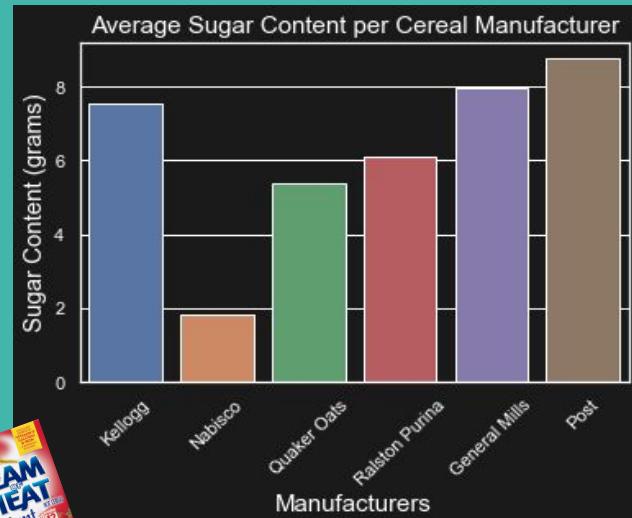
5 Best 'Good' Cereals

1. All Bran with Extra Fiber **Kellogg**
2. All Bran **Kellogg**
3. 100% Bran **Nabisco**
4. Post Nat. Raisin Bran **Post**
5. Raisin Bran **Kellogg**

5 Worst 'Bad' Cereals

1. Product 19 **Kellogg**
2. Rice Krispies **Kellogg**
3. Cheerios **General Mills**
4. Golden Grahams **General Mills**
5. Corn Chex **Ralston Purina**

Sugars



A pre-diabetic like myself should stay away from Post or General Mills brand cereals and pick up a Nabisco cereal instead. Cream of Wheat is the ideal cereal to avoid sugars.

5 Best Cereals for Sugar

1. Cream of Wheat Nabisco
2. Puffed Wheat Quaker Oats
3. Quaker Oatmeal Quaker Oats
4. All Bran with Extra Fiber Kellogg
5. Shredded Wheat'n Bran Nabisco

5 Worst Cereals for Sugar

1. Golden Crips Post
2. Smacks Kellogg
3. Total Raisin Bran General Mills
4. Apple Jacks Kellogg
5. Post Natural Raisin Bran Post

5 Best Cereals for Calories

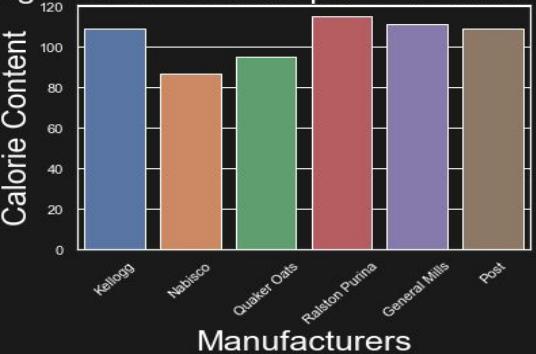
- | | |
|------------------------------|-------------|
| 1. Puffed Wheat | Quaker Oats |
| 2. All Bran with Extra Fiber | Kellogg |
| 3. Puffed Rice | Quaker Oats |
| 4. 100% Bran | Nabisco |
| 5. All Bran | Kellogg |

5 Worst Cereals for Calories

- | | |
|------------------------------|---------------|
| 1. Total Raisin Bran | General Mills |
| 2. Just Right Fruit & Nut | Kellogg |
| 3. Nutra-grain Almond-Raisin | Kellogg |
| 4. Basic 4 | General Mills |
| 5. Oatmeal Raisin Crisp | General Mills |

Calories

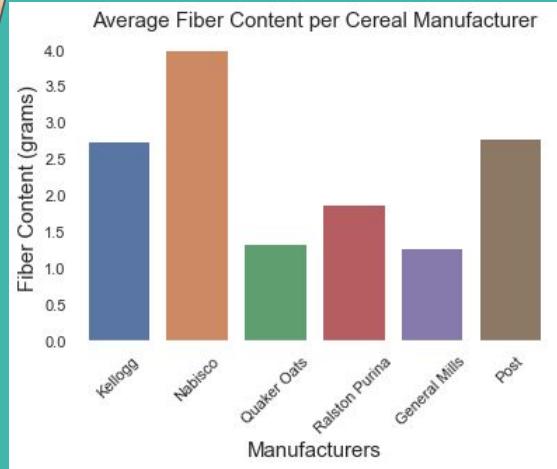
Average Calorie Content per Cereal Manufacturer



The first rule of losing weight is to take in less calories than you burn off each day. This is a very important component of losing weight. Nabisco is the brand to go to for lower calorie cereals. Quaker Oats' Puffed Wheat is the best individual cereal if you are watching your calories.



Fiber



Food

5 Best Cereals for Fiber

1. All Bran with Extra Fiber Kellogg
2. 100% Bran Nabisco
3. All Bran Kellogg
4. Post Nat. Raisin Bran Post
5. Fruit & Fiber Dates, Walnuts & Oats Post



5 Worst Cereals for Fiber

1. Kix General Mills
2. Lucky Charms General Mills
3. Corn Chex Ralston Purina
4. Coco Puffs General Mills
5. Puffed Rice Quaker Oats

Foods that are high in fiber help with weight loss by reducing your appetite and keeping the helpful bacteria in your stomach healthy. Nabisco makes the cereals with the most fiber overall. However, if you wanted the single best cereal for fiber it would be All Bran with Extra Fiber by General Mills.

Carbohydrates

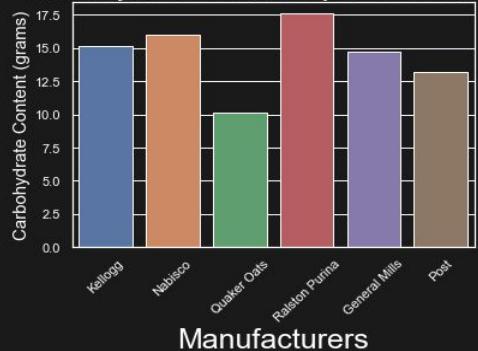
5 Best Cereals for Carbohydrates

- | | | |
|----|---------------------------|-------------|
| 1. | Quaker Oatmeal | Quaker Oats |
| 2. | 100% Bran | Nabisco |
| 3. | All Bran | Kellogg |
| 4. | 100% Natural Bran | Quaker Oats |
| 5. | All Bran with Extra Fiber | Kellogg |

5 Worst Cereals for Carbohydrates

- | | | |
|----|---------------------------|----------------|
| 1. | Rice Chex | Ralston Purina |
| 2. | Corn Chex | Ralston Purina |
| 3. | Rice Krispies | Kellogg |
| 4. | Nutra-grain Almond-Raisin | Kellogg |
| 5. | Crispix | Kellogg |

Average Carbohydrate Content per Cereal Manufacturer



On my weightloss journey, staying away from carbohydrates has been a key factor. Carbs are broken down by our bodies and processed into sugars. Ralston Purina and Nabisco are the got too brands here. Despite having the worst overall carb stats, Quaker oats make the best cereal for carbs with their Oatmeal.

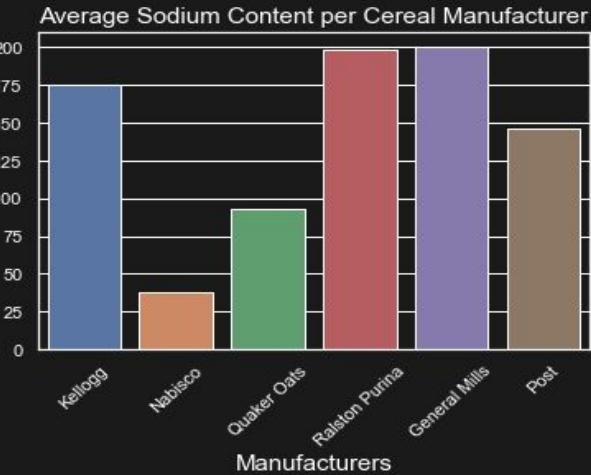
Sodium

High levels of sodium will cause our bodies to retain water. It also prevents water for helping our metabolism burn calories and fat. If we are watching our scale, we also need to watch our sodium intake. Nabisco makes the cereals with the lowest sodium content. The best individual cereal for avoiding sodium is Puffed Rice by Quaker Oats.



5 Best Cereals for Sodium

- | | | |
|----|----------------|-------------|
| 1. | Puffed Rice | Quaker Oats |
| 2. | Quaker Oatmeal | Quaker Oats |
| 3. | Puffed Wheat | Quaker Oats |
| 4. | Raisin Squares | Kellogg |
| 5. | Shredded Wheat | Nabisco |



5 Worst Cereals for Sodium

- | | | |
|----|----------------|---------------|
| 1. | Product 19 | Kellogg |
| 2. | Cheerios | General Mills |
| 3. | Corn Flakes | Kellogg |
| 4. | Rice Krispies | Kellogg |
| 5. | Golden Grahams | General Mills |

Fat

5 Best Cereals for Sodium

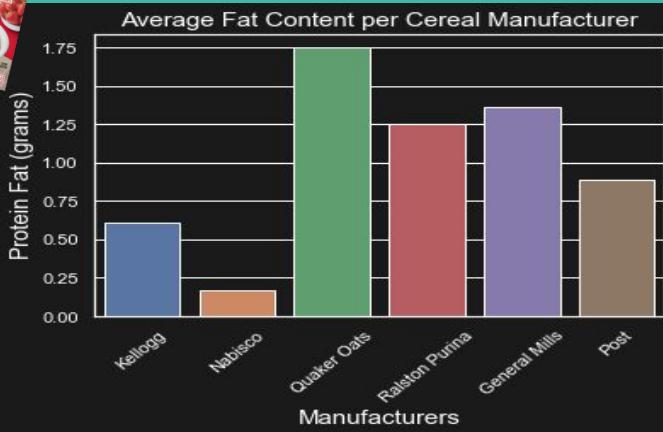
1. Cream of Wheat Nabisco
2. Frosted Mini-wheats Kellogg
3. Frosted Flakes Kellogg
4. Raisin Squares Kellogg
5. Double Chex Ralston Purina



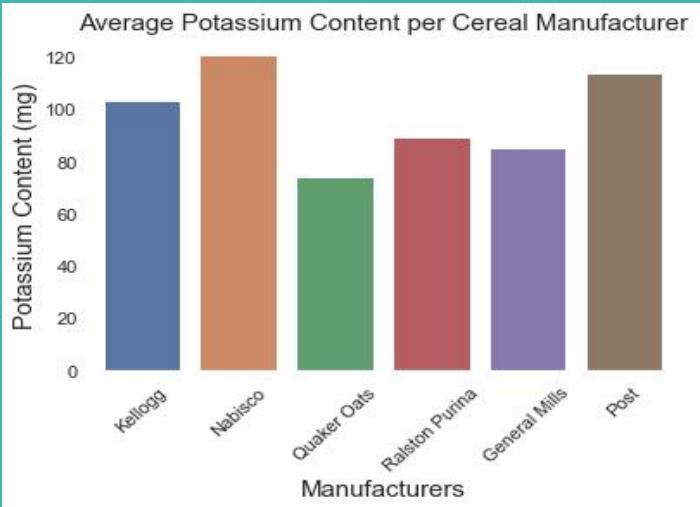
Although generally there is not much fat in cereal, it is still an important metric to monitor if you are trying to lose weight. Nabisco has very little fat in most of its cereals, but if you need to choose only one, Cream of Wheat is your cereal of choice.

5 Best Cereals for Sodium

1. 100% Natural Bran Quaker Oats
2. Great Grains- Pecan Post
3. Cinnamon Toast Crunch General Mills
4. Cracklin Oat Bran Kellogg
5. Life Quaker Oats



Potassium



Potassium helps build stronger muscles, which in turn are more efficient at burning calories. Nabisco and Post make cereals with high levels of potassium. All Bran with extra fibers takes the spot for most potassium.



5 Best Cereals for Potassium

1. All Bran with Extra Fiber Kellogg
2. All Bran Kellogg
3. 100% Bran Nabisco
4. Post Nat. Raisin Bran Post
5. Raisin Bran Kellogg

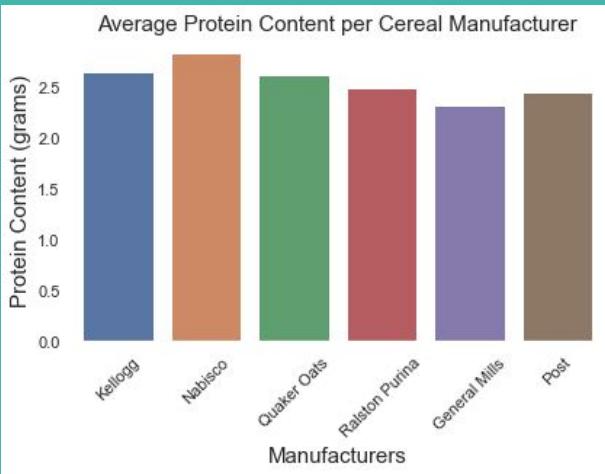
5 Worst Cereals for Potassium

1. Almond Delight Ralston Purina
2. Cream of Wheat Nabisco
3. Puffed Rice Quaker Oats
4. Corn Pops Kellogg
5. Frosted Flakes Kellogg



Protein

Protein is very important to weight loss. It boosts metabolism, reduces appetite and changes weight-altering hormones. All of the brands do a good job of incorporating proteins in their cereals, but nabisco does the best. Special K is the winner for individual cereals, but you won't get much from that bowl of Golden Grahams.



5 Best Cereals for Protein

1. Special K Kellogg
2. Cheerios General Mills
3. Quaker Oatmeal Quaker Oats
4. 100% Bran Nabisco
5. All Bran Kellogg



5 Worst Cereals for Protein

1. Honey Graham Oh's Quaker Oats
2. Fruity Pebbles Post
3. Count Chocula General Mills
4. Corn Pops Kellogg
5. Golden Grahams General Mills

Vitamins

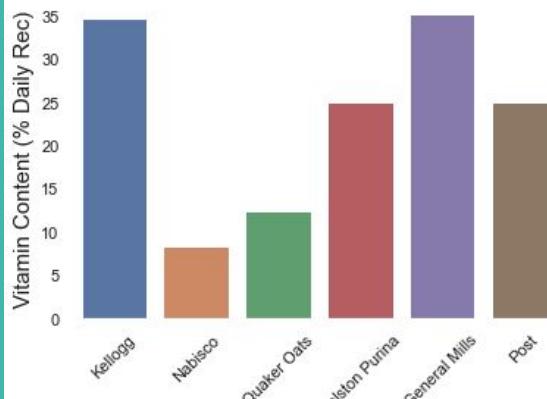
Vitamins are essential to increasing metabolism and making other weight loss functions more efficient. Both Kellogg and General Mills do a great job of fortifying their cereals with vitamins. Choosing a Just Right or Total cereal will complete your vitamin needs for the day. Any of the bottom cereal will leave you hungry for vitamins. Better stock up on some Flintstones.

5 Best Cereals for Vitamins

- | | |
|-------------------------------|---------------|
| 1. Just Right Crunchy Nuggets | Kellogg |
| 2. Just Right Fruit and Nut | Kellogg |
| 3. Total Whole Grain | General Mills |
| 4. Total Raisin Bran | General Mills |
| 5. Total Corn Flakes | General Mills |



Average Vitamin Content per Cereal Manufacturer



5 Worst Cereals for Vitamins

- | | |
|-----------------------------|-------------|
| 1. Quaker Oatmeal | Quaker Oats |
| 2. Cream of Wheat (Quick) | Nabisco |
| 3. Shredded Wheat | Nabisco |
| 4. Puffed Rice | Quaker Oats |
| 5. Shredded Wheat Spoonsize | Nabisco |



Conclusion

Much to my dismay, I won't be eating Golden Grahams and Lucky Charms for breakfast every morning. Here are some things that I have learned:

- Kellogg and General Mills are the top 2 producers of both healthier cereals and unhealthy cereals.
- Ralston Purina also produces a large number of unhealthy cereals.
- Of the top four nutritional components determined to influence the health rating, the best cereals for each are:
 - Sugars - Cream of Wheat
 - Calories - Puffed Wheat
 - Carbohydrates - Quaker Oatmeal
 - Fiber - All Bran
- As suspected, cereals that are marketed towards kids tend to be the least healthiest.
- Cereals that look "Healthy" may not necessarily be as nutritional as they imply:
 - Product 19 (Highest 'bad' score)
 - Cheerios (3rd Highest 'bad' score)
 - Almond Delight (Lowest 'Good' score)
 - Cream of Wheat (2nd Lowest 'Good' score)