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# Fred's Diet

Fred Johnson is a 28-year-old self-employed computer analyst who works in his home office. Fred's doctor says that he is 15 kg overweight. (He is currently 90 kg and 1.75 m tall.) Fred is moderately active – he walks his dog for 45 minutes twice a day (to a donut shop), and he plays squash once a week with a friend. He avoids milk because he is lactose intolerant. Fred knows that his diet is unhealthy but he needs some advice on how to change it. He has also noticed that eating out is costing him a lot of money. He has recorded his intake for one day and is asking you to analyze his diet and make suggestions to improve it.

**MY DIET  
by Fred Johnson**

|  | Amount Consumed |
| --- | --- |
|  |  |
| Breakfast |  |
| Orange juice | 250 ml |
| Eggs, fried | 2 |
|  |  |
| **Snack** |  |
| Coffee with cream and sugar | 250 ml coffee, 15 ml cream, 15 ml sugar |
| Chocolate donut | 1 |
|  |  |
| Lunch |  |
| Big Mac Hamburger | 1 |
| French Fries | 30 fries |
| Diet coke | 250 ml |
|  |  |
| Snack |  |
| Coffee with cream and sugar | 250 ml coffee, 15 ml cream, 15 ml sugar |
| Apple fritter donut | 1 |
|  |  |
| Supper |  |
| Kentucky Fried Chicken | 350g |
| Onion Rings | 10 onion rings |
| Diet 7-up | 250 ml |
| Apple Pie | 1 slice |

# Calorie Intake

Orange Juice ------- 100 calories

Eggs ----------------- 180 calories

Coffee --------------- 60 calories

Choco Donut ------- 195 calories

Big Mac Burger –-- 540 calories

French Fries -------- 365 calories

Diet Coke ----------- 0 calories

Coffee --------------- 60 calories

Apple Fritter -------- 300 calories

Kentucky Chicken - 1000 calories

Onion Rings -------- 300 calories

Apple Pie ------------ 270 calories

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Total ---------------🡪 3370 calories

# Your Task - Analyze Fred's diet.

1. Let’s start off with something positive for Fred. Describe one thing that Fred is doing right in his diet and eating pattern. (2 marks)

The only positive thing he’s doing is the breakfast. Orange juice is a great morning drink which contains a lot of Vitamin C, when drank on an empty stomach purifies the body because it helps to start the intestinal movement. Eggs are the cheapest form of protein plus contains vitamin A, B, D and E, they also contain all the essential amino acids that our body needs. There are also many studies explaining how eggs are not related to high cholesterol and risk of heart disease, to be safe until science finds the final verdict eat only egg white.

1. Based on what you have learned this semester, prepare a list of 4 **dietary** (food- or nutrient-related) changes Fred should make. Explain why you made these recommendations. (8 marks)

The nutrient intake of Fred is insanely low, due to eating out and having one of the worst diet ever recorded. We are going to balance out the calories plus the intake of iron, calcium, sodium, protein and fibre of Fred. I would change the diet completely but I’m going to focus on only 4 changes. In my opinion the worst foods he’s taking are the big foods from restaurants the Big Mac Burger and the Kentucky Fried Chicken. The other two changes are involved with those trips to the coffee shop where he drinks and eat high sugary foods like the donuts and the coffee with excessive amount of cream and sugar. My first recommendation will be to stop eating out in those big chain restaurants they are a waste of money and the nutrition intake is often disrupting because of the amount of preservatives that are used to preserve the food during the whole food process from the factory to the restaurant. Substitute the Big Mac Burger for a home-made chicken grill with vegetables it could be broccoli which is high in iron or cucumber and tomato; my favorite. Substitute the Kentucky Fried Chicken for sweet potatoes, rice and beans and pork chops. This plate is around 500 calories which is half of the Kentucky Fried Chicken and contains large amounts of protein because of the beans and the pork lambs. Adding a vegetable is also a great addition. Diversity in colors on the food is key for the whole process. Some people trying to lose weight sometimes try to avoid eating meat if this is the case eating a plate of whole made pasta with arugula is an alternative. The trips to the coffee shop must stop, I doubt that there is anything good on the menu on a donut shop so the best option is to change he route of the walk and go to a healthier place, I would change both trips to a coffee shop where they sell tea, green tea is one option also change the donuts for either an apple, a banana or some drink with honey instead of refined sugar. If tea is too hard of a change getting black coffee is healthier and contains 0 calories. One observation is that he’s drinking cream which is a diary product and he’s lactose intolerant I’m going to assume that’s is a lactose free cream, if not he must change this habit right away.

1. In your opinion, which of these 4 changes would be the easiest one for Fred to make? Why? (2 marks)

In my opinion changing the coffee for tea and the donuts for a fruit is the hardest change. There are many studies explaining how addictive is the sugar and humans are creature of habits, the trips to the coffee shop are part of the routine is not like the Kentucky Fried Chicken where he can order anything else or go to a different place, usually we walk with our dogs to the same place, and changing tea for coffee for someone who doesn’t like tea is going to be difficult.

1. In your opinion, which change would be the most difficult for Fred to make? Why? What would you suggest to help him make this difficult change a little easier? (3 marks)

Changing the Hamburger for the Chicken Grill will be the easiest. Fred could cook for 3-4 days and made enough portions for those days and the recook before eating. After some days, it will realize that home made food is intensively better and it also taste good and not like plastic. Some people think that changing the diet is hard but in fact with preparation everything is possible. The most important thing is too have something ready that is heathy when you’re hungry.

1. When Fred goes grocery shopping, what kinds of things should he look for when choosing foods to make the dietary changes you’ve recommended above? (3 marks)

He should look for healthier and lean meats like chicken, pork or lamb. Beef is rather expensive but is also good. It is a good practice to avoid the center of the super market which is where all the bad products are, stick to the sides of the super market where the vegetables and meats are. He should try to pick 2-3 vegetables that he likes to be able to include them on every meal, the best examples are broccoli, kale, celery and cucumber. Fred must avoid all sugary treats because they are high on calories and he’s already well over his calorie intake. Currently he should be around 2500 calories a day to keep weight or 1500 calories to lose 2 pounds a week. Fish is a great option too filled with calcium and sodium. He should also buy as much beans as he wants, there are many types all of them are great and in my opinion is one of the best food overall because is delicious is rich in nutrients.

1. What can Fred do to reduce his risk of food poisoning when preparing and cooking food? When serving food? When storing food? (6 marks)

The most common practices to avoid food poisoning are to keep raw food separated from cooked food this prevents cross contamination, look out for the leaking of these products inside the fridge because this causes cross contamination too. Washing hands and everything inside the kitchen is also key to avoid any type of contamination. Foods contains many organisms that may be dangerous for your body meats specially this is way is key to cook food to a safe temperature to kill these organisms. Always smell the food and look to anything that you cook in case of doubt throw it out. Avoid having any of your food reaching the 90F temperature level for more than 2 hours.

1. Calculate Fred’s current Body Mass Index. (2 marks)

The BMI for 175cm and 90kg is 29.4 which ranks as overweight which is 25-29.9 and is very close to obesity from 30 and up.

1. What would his Body Mass Index be if he lost the 15 kg recommended by his doctor? Do you think this is a reasonable amount of weight loss for his doctor to recommend? Why or why not? (4 marks)

The BMI for 175cm and 75kg after losing 15kg will be 24.5 which ranks as normal weight on the range of is 18.5-24.9.

This is a reasonable amount of weight to lose the real question is in how much time he should lose this weight. To be able to take the necessary amount of nutrient intake and being able to live life without risking diseases or sacrificing vitamins we should lose only 2 pounds per week, this clearly depends on the person but for Fred 2 pounds per week is fine. To lose 15kg he should be on a diet for almost 17 weeks losing 2 pounds every week to lose 33 pounds.

Recommending more than this would be risky to his life.

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