LifeSci 2N03 Assignment #2

What Are You Eating – A Dietary Assessment

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LifeSci 2N03: Human Nutrition For Life Science

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Author Note

Jatin Chowdhary is a student at McMaster University

I have no conflicts of interest to disclose

I would like to thank Dr. Vanderhout

Part E – Written Interpretation

1a. As per Diet Wellness Plus (DWP), my average kilocaloric intake, per day, is roughly 2387.9 kcal, and my calculated estimated energy requirement (EER) is 2667.00802 kilocalories. Dividing the former value by the latter yields ~0.895, and multiplying by 100 percent yields roughly ~89.5%. On average, I am meeting about ~90% of my caloric intake. Although it is not 100%, or very close to it, a discrepancy of 10% is acceptable due to shortcomings and inadequacies in Diet Wellness Plus. It is likely that the software is under reporting calories for some foods, namely carbohydrates. The software takes into account the average portion size, but my portions are at least 20% larger than the average portion size, and there is no way to compare my portions with their default values. Hence, there is a discrepancy between my average kilocaloric intake, per day, and my calculated estimated energy requirement (EER). These results are acceptable.

1b. According to Diet Wellness Plus (DWP), my macronutrient intake for carbohydrates is low, for protein it is very high, and for fat it is a little bit more than my DRI. My fat intake is over the AMDR, because I frequently consume olive oil, peanuts, and use clarified butter when cooking meals. Nonetheless, my fat intake does not pose any serious health risks. On the other hand, my protein intake is way above the AMDR, because I drink whey protein shakes almost every day. In addition, I consume a relatively large amount of meat and eggs during the weekend. Even though Diet Wellness Plus lists this as an issue, the software does not account for my daily physical activity. Protein shakes are only consumed on days where I exercise. If I do not exercise, then I do not consume a protein shake. In addition, if I know ahead of time that dinner involves meat, then I will not consume a protein shake. Plus, if I intend to have eggs, I cut back on how much protein powder I consume. Finally, my macronutrient intake for carbohydrates is low, and this does pose a cause for

concern. Carbohydrates are an essential macronutrient for maintaining optimal human health. Carbohydrates contain vitamins, minerals, and most notably, fibre. Fibre is very important. However, upon closer examination, I am not deficient in any vitamin or mineral, and my fibre intake is relatively ok. Thus, I believe that this discrepancy is due to the inadequacies of Diet Wellness Plus. It is probable that the software is under reporting carbohydrates for certain foods, most notably (flat) bread, which is a staple part of my diet.

1c. Overall, my micronutrient intake is optimal relative to the recommended intake (DRI) values. For most micronutrients, my intake is either at par or over the recommended intake (DRI). The only vitamin I am lacking is vitamin D. However, this is because Diet Wellness Plus does not account for sunlight exposure when calculating vitamin D intake or production. Vitamin D can be synthesized via sunlight, but the software only accounts for vitamin D intake or production via diet. Hence, this discrepancy does not pose any reasonable cause for concern.

1d. Compared to recommended water consumption, my water consumption is inadequate by roughly 1 L. This is problematic because water is essential for cells to function. This inadequacy cannot be attributed to the software; it is my fault. On average, I need to drink 5 more cups of water every day to meet the recommended water consumption.

2. Upon comparing my micronutrient intake against the recommended intake values outlined in the "DRI Essential Guide", it is evident that I am overconsuming vitamin B12 and iron, and lacking in vitamin D, potassium, and sodium.

My overconsumption of vitamin B12 is due to daily supplementation. I frequently take vitamin B12 in the form of methylcobalamin in the morning with a whey-based protein shake and a banana. The

recommended intake (DRI) for vitamin B12, for an individual like me, is 2.4 mg/day. My intake is roughly 400.4 mg/day. According to scientific literature, overconsuming vitamin B12 is not an issue because it is water soluble and most of it is excreted in urine (Water-soluble vitamins: B-complex and vitamin C 2012). In addition, absorption of vitamin B12 is not 100% efficient due to the need for an intrinsic factor. Hence, my overconsumption of vitamin B12 dose not pose a serious issue. In contrast, vitamin B12 deficiency poses a serious health risk – especially for vegetarians. Symptoms include, but are not limited to, neurological disease, anemia, impaired cognition, fatigue, thrombosis, gastritis, etc. (Vitamin B12 deficiency 2013). Therefore, my overconsumption of vitamin B12 is not a serious issue, but it would be wise for me to supplement on alternate days.

My overconsumption of iron is due to the heaps of vegetables – mostly broccoli – whole grains, and nuts I consume on a daily basis. The recommended intake (DRI) for iron, for an individual like me, is 8.00 mg/day. On average, my daily intake of iron is approximately 15.98 mg/day – this is almost twice the DRI. Overconsumption of iron can negatively impact my health via inflammation, anemias, neurodegeneration, thalassemias, and oxygen tension (Iron overload in human disease 2012). However, an important thing to note is that most of my iron comes from plants, grains, and nuts, which is heme iron. Heme iron is less bioavailable than its counterpart non-heme iron (Dietary heme iron absorption 1979). According to the literature, heme iron consumption does not equate to absorption.

According to Diet Wellness Plus, I am severely lacking in vitamin D. My calculated intake is 1.011 mcg, and the recommended intake (DRI) is 15.00 mcg. This is unacceptable because vitamin D is essential for optimal human health. Research has shown that vitamin D deficiency is "associated

with increased risk of common cancers, autoimmune diseases, hypertension, and infectious diseases" (Holick et al., Vitamin D deficiency: a worldwide problem with health consequences 2008). In fact, vitamin D deficiency is now recognized as a pandemic (Holick et al., 2008). In adults, vitamin D deficiency can "exacerbate osteopenia and osteoporosis, cause osteomalacia and muscle weakness, and increase the risk of fracture" (Holick et al., Vitamin D deficiency 2007). As a young adult this a serious problem. However, Diet Wellness Plus only tracks vitamin D intake via diet, and not vitamin D synthesized by the skin when exposed to sunlight. Therefore, the calculated values may not be entirely accurate due to a major component being excluded. A more accurate test is a blood test, which can precisely determine how much vitamin D is cirulating in the blood.

Finally, my intake of sodium and potassium are inadequate; which is detrimental to my health, due to the critical roles these two minerals are involved in. As per the template, I need to consume 1.3g and 0.9g more of potassium and sodium, respectively. Failure to do so will negatively impact my health by disrupting the sodium-potassium pump. Deficiency in these key minerals can result in hypertension and cardiovascular (The impact of sodium and potassium on hypertension risk 2014).

3. The best way for me to improve my diet is to focus on the few things I am deficient in, namely, water, sodium, potassium, vitamin D, and carbohydrates. The quickest way I can improve my diet is to increase my water intake by 1.4 L/day, which translates to about 6 glasses of water obtained via food and beverages. The most effective and attainable way to achieve this is to drink water out of a 1.5 L (glass) bottle. I can fill up the bottle in the morning and finish it by night. Hence, this will allow me to measurably drink an adequate amount of water in a timely and realistic manner. The single best improvement I can make is by increasing my sodium, potassium, and vitamin D intake. More

specifically, I need to start consuming avocados every night in the form of guacamole. Avocados are high in potassium, and guacamole requires salt – sodium. Based on my requirements I can measure how much salt I need as per the recommended intake (DRI). In addition, I can pair the guacamole with organic kettle corn chips, which provide a healthy source of whole grain carbohydrates. The entire snack is healthy, plant-based, good for the planet, and provides all the nutrients I am deficient in. As for vitamin D, I can resort to supplements or consume fatty fish. In the beginning, I can supplement vitamin D, and then switch to fatty fish.

4. Compared to Canada's most recent food guide (2019), my diet is high in protein, and low in carbohydrates and plant-based food. The first way my eatings habits can be improved to better align with Canada's food guide is adding more fruits and vegetables to my diet. CFG recommends trying a variety of fruits and vegetables such as: pears, berries, peaches, cabbages, leafy greens, cauliflower, celery sticks, etc. The second improvement I can make to better align my diet with Canada's food guide is by eating more whole grains. This includes things like: quinoa, pasta, bread, oats, and brown rice. Whole grains are high in fibre, an essential nutrient for optimal human health. The last improvement I can make to my diet is cutting down on protein from whey-based powders, and focusing more on beans, lentils, nuts, and plant-based protein in general. Canada's food guide does not recommend eating large amounts of protein to meet nutritional needs.

5a. Three products I found to have misleading advertising on their packages are: croutons, keto bombs, and fruit snacks. The croutons are made by "Back To Nature", the keto bombs are made by "Keto Made Simple", and the fruit snacks are made by "Welch". The croutons are misleading because the packaging advertises that they are fresh, when they are not. Upon reading the

ingredient list, it is immediately obvious that a lot of preservatives are added to retain the product's freshness. In addition, the pictures on the packaging mislead customers into thinking that the croutons are a healthy snack. The keto bombs are misleading because the packaging advertises no sugar, but fails to mention that natural sugar has been replaced with artificial sugar. After reading the ingredients, it is evident that the keto bombs undergo heavy processing, which is counter intuitive to a healthy snack. The packaging on Welch's fruit snacks are misleading because it does not clearly disclose that lots of sugar is added during the production of the snack. The packaging is designed to be as misleading as possible. Most customers associate fruits with healthy eating, and Welchs' fruit snacks take advantage of this via misleading claims and product labels.

5b. Upon closer inspection of the croutons, it is evident that they are not a healthy addition to salad. The most dissauding fact about the croutons is that they are not whole-grain products. In fact, the croutons are refined carbohydrates, which are notorious for lacking key nutrients, and acting as anti-nutrients by prohibiting the absorption of other nutrients (Refined carbohydrates—a cause of suboptimal nutrient intake 1983). The keto bombs are not a healthy snack because the keto diet is an unhealthy fad diet. Research has shown, time and time again, that the keto diet is unhealthy, and poses serious long term health risks (Dietary carbohydrate intake and mortality 2018). Customers would be dissauded from buying keto bombs, if they were aware of the serious health risks with a keto (fad) diet. Finally, Welchs' fruit snacks are extremely misleading because the packaging does not clearly state that sugar is added, nor does it state that the fibre in fruits has been stripped out, along with most of it's nutritional value. If customers knew they that Welchs' fruit snacks are more sugar and starch than fruit and fibre, then they would not purchase it.

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Appendix

Appendix A: Diet Log (Page 1)

Name: Jatin Chowdhary
Student number: 400033011

5 Day Diet Record

Date	Breakfast food	Amount	Morning snack	Amount	Lunch	Amount	Afternoon snack	Amount	Dinner	Amount	Evening snack	Amount
Select 5 days (2 weekend days and 3 weekday days within a 7 day period)												
10/23/2021	Vitamin B12	500 mcg	Apple	2	Virginia Peanuts	0.75 cups	Unsalted, Roasted Almonds	0.75c	Clarified Butter	5 tbsp	Water	2 cups
	Banana	1	Red Grapes	1 cup	Dark Chocolate (70%)	75g			Baby Carrots	0.4 cups		
	Water	1 cup	Water	1 cup	Water	1 cup			Chicken, 8 leg pieces	3 cups		
									Peeled cucumber	0.25 sticks		
									Steamed Broccoli	0.25 cups		
									Water	4 cups		
10/24 2021			Water	2 cups	Vitamin B12	250 mcg			Boiled potatoes	1 cup	Water	2 cups
					Banana	1			Bean Sprouts	50g		
					Diesel Protein Powder	20g			Green Olives	50g		
					Water	3 cups			Basmati Rice	1 cup		
10/25/2021	Vitamin B12	250 mcg	Water	1 cup	Lime	1			Extra Virgin Olive Oil, Cold Pressed	3 tbsp	Water	1 cup
	Banana	1			Peanuts, Oil Roasted	75g						

Appendix A: Diet Log (Page 2)

	Diesel Protein Powder	30g			Banana	1				Fried Paneer	100g				
					Almonds, Dry Roasted, without Salt	0.25 cups				Roti, Tandoori	2 pieces				
	Water	3 cups			Apple	1				Baby Carrots	8 sticks				
					Water	1 cup				Black Pepper	1 tsp				
10/26/2021	Vitamin B12	250 mcg	Plain Yogurt, Full Fat	400g	Slices Apples	2 cups	Dark Chocolate 70%	100g		Black Pepper	1 tsp	Water	2 cups		
	Diesel Protein Powder	30g			Grapes	1 cup				Boiled Lentils With Salt	1.25 cups				
			Double Smoked Cheese	50g			Peanuts, Virgina, Oil Roasted, Salted	0.75 cups								
	Water	2 cups			Water	1 cup				Steamed Broccoli	2 cups				
										Olive Oil	2 tsp				
										Roti, Tandoori	1				
10/27/2021	Hard Boiled Eggs	6	Plain Yogurt, Made With Whole Milk	3 cups	Avocado	1 cup	Peanuts, Virginia	0.75 cups		Vitamin B12	500 mcg	Water	1 cup		
					Bean Sprouts, Lentils	110g				Diesel Protein Powder	30g				
	Aged Cheese	50g	Water	1 cup											
					Olive Oil	2 tbsp				Banana	1				
	Table Salt	0.25 tsp													
					Baby Carrots	10 sticks				Water	3 cups				
	Black Pepper	1 tsp													

Appendix B: Daily Food Log (Day 1)

Report Parameters

Select a Date : 10/23/2021

Choose Meal Times

- [x] Breakfast
- [x] Morning Snack
- [x] Lunch
- [x] Afternoon Snack
- [x] Dinner
- [x] Evening Snack

Daily Food Log

This report shows, for the day and meals selected, the foods you have recorded under Track Diet.

Entries for 10/23/2021

Breakfast		
SCHIFF Vitamin B12 250 mcg, Yeast Free	2 item	0 kcal
Banana	1 item	105.02 kcal

Entries for 10/23/2021

Morning Snack		
Apple, Medium	2 item	154.96 kcal
Grapes, Red or Green	1 c.	104.19 kcal

Entries for 10/23/2021

Lunch		
Peanuts, Virginia	0.75 c.	616.485 kcal
Candy or Candies, Dark Chocolate, 70-85% Cacao Solids	75 g	448.508 kcal

Entries for 10/23/2021

Afternoon Snack		
Almonds, Dry Roasted, without Salt Added	0.75 c.	618.93 kcal

Dinner		
ORGANIC VALLEY Family Farms Butter, Ghee, Clarified	5 T.	675 kcal
Carrots	0.4 c.	20.008 kcal
Chicken, Meat Only, Stewed	3 c.	743.405 kcal
Cucumber, Peeled, Raw	0.25 item	6.03 kcal
Broccoli, Chopped, Boiled, Drained	0.25 c.	13.65 kcal

Entries for 10/23/2021

Total Water		
Water, Tap	9 c.	0 kcal

Total: 3,506.186 kcal

Appendix B: Daily Food Log (Day 2)

Report Parameters

Select a Date : 10/24/2021

Choose Meal Times

- [x] Breakfast
- [x] Morning Snack
- [x] Lunch
- [x] Afternoon Snack
- [x] Dinner
- [x] Evening Snack

Daily Food Log

This report shows, for the day and meals selected, the foods you have recorded under Track Diet.

Entries for 10/24/2021

Lunch		
SCHIFF Vitamin B12 250 mcg, Yeast Free	1 item	0 kcal
Banana	1 item	105.02 kcal
Protein Powder	20 g	80.2 kcal
STELLA Cheese, Blue, Natural, Smoked	25 g	88.185 kcal

Entries for 10/24/2021

Dinner		
Potatoes, Flesh Only, Boiled with Skin	1 c.	135.72 kcal
Bean Sprouts, Mung, Boiled, Drained	50 g	10.5 kcal
Olives, Green, Stuffed	50 g	64 kcal
FANTASTIC WORLD FOODS Rice, Basmati, Dry	1 c.	640 kcal

Entries for 10/24/2021

Total Water		
Water, Tap	7 c.	0 kcal

Total: 1,123.625 kcal

Appendix B: Daily Food Log (Day 3)

Report Parameters

Select a Date : 10/25/2021

Choose Meal Times

- [x] Breakfast
- [x] Morning Snack
- [x] Lunch
- [x] Afternoon Snack
- [x] Dinner
- [x] Evening Snack

Daily Food Log

This report shows, for the day and meals selected, the foods you have recorded under Track Diet.

Entries for 10/25/2021

Breakfast		
SCHIFF Vitamin B12 250 mcg, Yeast Free	1 item	0 kcal
Banana	2 item	210.04 kcal
Protein Powder	30.000000000000004 g	120.3 kcal

Entries for 10/25/2021

Lunch		
Lime	1 item	20.1 kcal
Peanuts, Oil Roasted	75 g	449.25 kcal
Banana	1 item	105.02 kcal
Almonds, Dry Roasted, without Salt Added	0.25 c.	206.31 kcal
Apple, Medium	1 item	94.64 kcal

Entries for 10/25/2021

Dinner		
SPECTRUM Oil, Arbequina Olive, Extra Virgin, Unfiltered, Organic	3 T.	360 kcal
NANAK Fresh Cheese, Fried Paneer, Cubes	100 g	300 kcal
Roti, Tandoori (Indian Flatbread)	2 pc.	426.44 kcal

Dinner		
Carrots, Baby	8 item	28 kcal
Pepper, Black, Ground	1 t.	5.271 kcal

Entries for 10/25/2021

Total Water		
Water, Tap	6 c.	0 kcal

Total: 2,325.371 kcal

Appendix B: Daily Food Log (Day 4)

Report Parameters

Select a Date : 10/26/2021

Choose Meal Times

- [x] Breakfast
- [x] Morning Snack
- [x] Lunch
- [x] Afternoon Snack
- [x] Dinner
- [x] Evening Snack

Daily Food Log

This report shows, for the day and meals selected, the foods you have recorded under Track Diet.

Entries for 10/26/2021

Breakfast		
Beverages, Protein Powder, Whey Based	30 g	105.6 kcal
SCHIFF Vitamin B12 250 mcg, Yeast Free	2 item	0 kcal

Entries for 10/26/2021

Morning Snack		
Yogurt, Plain, 2%-4% Butter Fat	400.00000000000006 g	284 kcal
VILLA FRIZZONI Cheese, Provolone, Smoked, Ref	50 g	176.37 kcal

Entries for 10/26/2021

Lunch		
Apple, Slices	2 c.	113.36 kcal
Grapes, Slip Skin (includes Concord), American	1 c.	61.64 kcal

Entries for 10/26/2021

Afternoon Snack		
Candy or Candies, Dark Chocolate, 70-85% Cacao Solids	100 g	599 kcal
Peanuts, Virginia, Oil Roasted, Salted	0.75 c.	619.905 kcal

Entries for 10/26/2021

Dinner		
Pepper, Black, Ground	1 t.	5.271 kcal
Lentils, Boiled, with Salt Added	1.2499999999999998 c.	282.137 kcal
Broccoli, Chopped, Boiled, Drained	2 c.	109.2 kcal
Olive oil	2 t.	79.56 kcal
Roti	1 item	105.405 kcal

Entries for 10/26/2021

Total Water		
Water, Tap	5 c.	0 kcal

Total: 2,541.448 kcal

Appendix B: Daily Food Log (Day 5)

Report Parameters

Select a Date : 10/27/2021

Choose Meal Times

- [x] Breakfast
- [x] Morning Snack
- [x] Lunch
- [x] Afternoon Snack
- [x] Dinner
- [x] Evening Snack

Daily Food Log

This report shows, for the day and meals selected, the foods you have recorded under Track Diet.

Entries for 10/27/2021

Breakfast		
Salt, Table	0.25 t.	0 kcal
ANNIES HOMEGROWN Mac & Cheese, Shells & Real Aged Wisconsin Cheddar Cheese, Prepared	50 g	106.061 kcal
Eggs, Hard Boiled	6 item	423 kcal
Pepper, Black, Ground	1 t.	5.271 kcal

Entries for 10/27/2021

Morning Snack		
Yogurt, Plain, Made with Whole Milk (8 grams protein per 8 ounces)	3 c.	448.35 kcal

Entries for 10/27/2021

Lunch		
Avocado	1 c.	233.6 kcal
Bean Sprouts, Lentils, Stir Fried	110 g	111.101 kcal
Oil, Olive	2 T.	238.68 kcal
Carrots, Baby	10 item	35 kcal

Entries for 10/27/2021

Afternoon Snack		
Peanuts, Virginia	0.75 c.	616.485 kcal

Entries for 10/27/2021

Dinner		
SCHIFF Vitamin B12 250 mcg, Yeast Free	2 item	0 kcal
Banana	1 item	105.02 kcal
Protein Powder	30.000000000000004 g	120.3 kcal

Entries for 10/27/2021

Total Water		
Water, Tap	5 c.	0 kcal

Total: 2,442.867 kcal

Name: Jatin Chowdhary
Student number: 400033011

Data Abstraction Table (make cells larger as needed)

Item	Recommendation	My average	Comments (high, low, ok)
Kilocalorie (kcal) intake	**EER** = 662 – (9.53 * age [y]) + PA * [(15.91 * weight [kg]) + (539.6 * height [m])] **EER** = 662 – (9.53 * 23) + (1.11) * [(15.91 * 65.9) + (539.6 * 1.77)] **EER** = 662 – 219.19 + (1.11) * [1048.69 + 955.092] **EER** = 662 – 219.19 + (2224.19802) **EER** = 442.81 + (2224.19802) **EER** = 2667.00802 ***EER ~ 2667***	2,387.899 kcal	Currently meeting 89.5% of my EER through diet. However, the energy/calories obtained through diet is probably adequate, and not inadequate. The results seem to be ok. As per Diet Wellness, recommended caloric intake is 3076 kilocalories.
Protein	Range is: [10 – 35]% 0.10 * 2667 = 266.7 0.35 * 2667 = 933.45 **[10 – 35%] → [266.7 – 933.45]**	103.852 g	As per Diet Wellness, protein intake is almost 2x the recommended intake (DRI). This is due to being on a high protein diet, and drinking protein shakes almost every day.
Carbohydrate	Range is: [45 – 65%] 0.45 * 2667 = 1200.15 0.65 * 2667 = 1733.55 **[45 – 65%] → [1200.15 – 1733.55]**	201.546 g	As per Diet Wellness, carbohydrate intake is insufficient. However, this is probably due to inadequacies in the software and it's inability to accurately account for carbs in certain kinds of flatbread and grains. Not all grains are the same. The results need to be reassessed.
Fat	Range is: [20 – 35%] 0.20 * 2667 = 533.4 0.35 * 2667 = 933.45 **[20 – 35%] → [533.4 – 933.45]**	140.196	As per Diet Wellness, fat intake is a little bit over the recommended intake (DRI), but nothing too alarming. The results seem to be ok.
Linoleic Acid (omega 6)	17 g/day	20.204 g	Daily intake of omega-6 fatty acids is above the recommended intake (DRI). However, the results are nothing to be concerned about. The results seem ok.
Linolenic Acid (omega 3)	1.6 g/day	0.607 g	Daily intake of omega-3 fatty acids is well below the recommended intake (DRI). The results are not okay – they are very low.
Total dietary fibre	38g/1000 kcal	34.448	Daily intake of dietary fibre seems to be ok. Roughly 90% of fibre intake has been met.

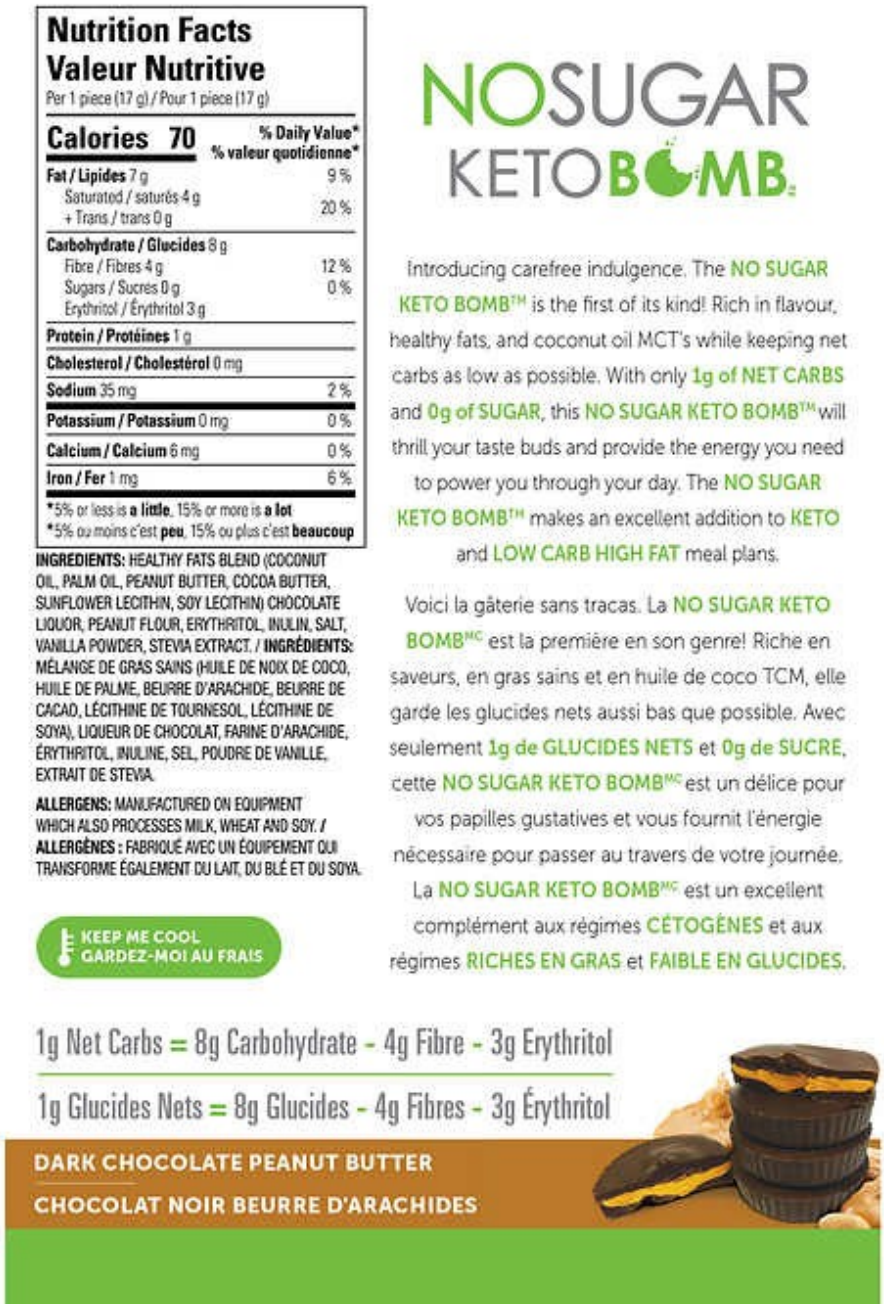
Water	3.7 L of total water; 3.0 L as total beverages	2.328 L	Daily water intake is low as per this template and Diet Wellness. The results are low – not ok.
Vitamins			
Thiamin	1.2 mg/day	1.134 mg	The results are ok.
Riboflavin	1.3 mg/day	1.81 mg	Riboflavin intake is above recommended intake (DRI), but it does not exceed the upper limit.
Niacin	16 mg/day	22.654 mg	Niacin intake is above recommended intake (DRI), but it does not exceed the upper limit.
Vitamin B6	1.3 mg/day	1.865 mg	Vitamin B6 intake is above recommended intake (DRI), but it does not exceed the upper limit.
Vitamin B12	2.4 mg/day	400.396 mcg	Vitamin B12 intake is way above recommended intake. This is due to (almost) daily supplementation of vitamin B12. The results are not inexplainable.
Folate	400 µg/day	512.45 mcg	The results are ok.
Vitamin C	90 mg/day	92.275 mg	The results are ok.
Vitamin D	200 IU (15.00 mcg)	1.011 mcg	As per Diet Wellness and the template, Vitamin D intake is extremely low. However, this is due to the inadequacies of Diet Wellness. Vitamin D can be synthesized via the Sun. The software does not account for this.
Vitamin A (use IU value)	3000 IU (900.0 mcg))	906.037 mcg	The results are ok.
Vitamin E (alpha-tocopherol)	15 mg/day	16.457 mcg	The results are ok.
Minerals			
Calcium	1000 mg/day	1108.32 mg	The results are ok.
Iron	8 mg/day	15.975 mg	As per Diet Wellness and the template, Iron intake is well almost 2x the recommended intake (DRI). This is due to vegetable intake. However, intake of a certain vitamin/mineral does not equate to 1:1 absorption.
Potassium	4.7 g/day	3392.363 mg	Potassium intake is well below the recommended intake (DRI). The results are low – not ok.
Sodium	2.3 g/day	1367.199 mg	Sodium intake is well below the recommended intake (DRI). The results are low – not ok.

Appendix D: Back To Nature Croutons (Front)

Appendix D: Back To Nature Croutons (Back)

Appendix D: Keto Bombs (Front)

Appendix D: Keto Bombs (Back)



Appendix D: Welch's Fruit Snacks (Front)

Appendix D: Welch's Fruit Snacks' Nutrition Label

Nutrition Facts
Valeur nutritive

Per 1 pouch (22 g)
Pour 1 sachet (22 g)

Amount / Teneur	% Daily Value / % valeur quotidienne
Calories / Calories 70	
Fat / Lipides 0 g	**0** %
Sodium / Sodium 10 mg	**1** %
Carbohydrate / Glucides 17 g	**6** %
Sugars / Sucres 10 g	
Protein / Protéines 1 g	

Not a significant source of saturated fat, trans fat, cholesterol, fibre, vitamin A, vitamin C, calcium or iron.

Source négligeable de lipides saturés, lipides trans, cholestérol, fibres, vitamine A, vitamine C, calcium et fer.

INGREDIENTS: FRUIT PUREE (GRAPE, PEACH, ORANGE, STRAWBERRY AND RASPBERRY), CORN SYRUP, SUGAR, MODIFIED CORN STARCH, GELATIN, CONCORD GRAPE JUICE FROM CONCENTRATE, CITRIC ACID (ACIDULANT), NATURAL FLAVOURS, SODIUM CITRATE, COCONUT OIL, CARNAUBA WAX, TURMERIC (FOR COLOUR), AND NATURAL COLOURS.

INGRÉDIENTS: PURÉE DE FRUIT (RAISIN, PÊCHE, ORANGE, FRAISE ET FRAMBOISE), SIROP DE MAÏS, SUCRE, AMIDON DE MAÏS MODIFIÉ, GÉLATINE, JUS DE RAISIN CONCORDE FAIT DE CONCENTRÉ, ACIDE CITRIQUE (ACIDULANT), ARÔMES NATURELS, LE CITRATE DE SODIUM, HUILE DE NOIX DE COCO, CIRE DE CARNAUBA, CURCUMA (POUR COLORANT), ET COLORANTS NATURELS.