

## Lab - Diet & Nutrition

**Purpose:** To determine the nutritional facts of your diet and to compare those facts to a nationally recommended diet for yourself.

**Procedure:**

1) Over the next three days, collect data on the foods you eat and the liquids you drink. Write down a list of these things, how many servings or how much you ate. For this you may have to make your best estimates of the actual amounts. If you ingest something that has nutritional facts on it, it may be helpful to write down the information presented, specifically in terms of calories, carbohydrates, fats and proteins.

Here is an example of the table/type of data that needs to be collected. If you like, you can just delete the data from this table and input yours.

Type of Food	Servings	Calories (kcal)	Carbohydrates (g)	Fats (g)	Proteins (g)
Frosted Mini Wheats w/milk	1	230	46	1	5
Orange juice	1 cup	112	27	0	2
Toast w/ butter					

2) On the fourth day, use the computer to determine the nutritional facts for each of the foods and drinks you have ingested that you did not find initially. Write down the data for calories, total carbohydrates, total fat and protein. As best you can, try to keep the data organized in such a way that you can make summary information. The following websites can be helpful finding nutritional data for the foods eaten:

[www.nutritiondata.com](http://www.nutritiondata.com)

[www.nutri-facts.com](http://www.nutri-facts.com)

[www.fitwatch.com/caloriecounter.html](http://www.fitwatch.com/caloriecounter.html)

[www.fitday.com/WebFit/calories/calories.html](http://www.fitday.com/WebFit/calories/calories.html)

Also, in a lot of cases, the company website will have nutritional facts on the foods they produce. You may wish to utilize that information as well.

**Analysis:**

1) Calculate the total Calories, carbohydrates, fats and proteins for each of the three days. Present the information in the table below. Then, find the total for each category for the three day period and then calculate an average. List all the information in the table below.

Day	Calories (kcal)	Carbohydrates (g)	Fats (g)	Proteins (g)
1				
2				
3				
<b>Total</b>				
<b>Average</b>				

- 2) What percent of your diet is made up of carbohydrates? Fats? Proteins?
- 3) How does your percentages compare to the teenage standard average of 50% carbohydrates, 15% fats, and 35 % proteins?
- 4) How many Calories do you consume from discretionary Calories per day?
- 5) To determine the amount of Calories you need, you can use the Miller–St. Joer equation, which is an estimate that is pretty widely accepted. Go to <http://www.calculator.net/calorie-calculator.html>, and put in the appropriate information. Input the calories needed below.
- 6) To determine your protein requirements, one way to do this is to use the following information:

Lifestyle	Calculation
Sedentary (M/F)	$(\text{Your Body Weight}) \times 0.6 = \text{g Protein}$
Maintenance (M/F)	$(\text{Your Body Weight}) \times 0.9 = \text{g Protein}$
Toning (Female)	$(\text{Your Body Weight}) \times 1.1 = \text{g Protein}$
Toning (Male)	$(\text{Your Body Weight}) \times 1.3 = \text{g Protein}$

How many grams of protein should be in your diet? How many Calories from proteins should you eat?

- 7) Fat Calories should be 25% of your Calories in a day. Determine the Calories from fat, and then determine the grams of fat, knowing 1 g of fat = 9 Cal.
- 8) Carbohydrate are the remainder of your diet. Determine the Calories left from (5) after you take out the fat and protein Calories. Determine the grams of carbs.
- 9) What kind of changes (if any) do you feel you need to make to your diet based on these results?

**Conclusion:**