**Table S1.** Example diets for active 30-year-old female.

| 30 year old active female – 2,200 kcal | Low Carbohydrate Diet\(<130\text{ g/d}\) or \(<26\%\text{ of energy (143 g/d)}\) | ADA Guidelines \([45-60\%\text{ of energy (248-330 g/d)}]\) |
|----------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| **Very Low Carbohydrate Diet (20-50 g/d)** | = 37 g Net                                                                                      | = 270 g Net                                                                                      |
| **Low Carbohydrate Diet**               | = 116 g Net                                                                                     |                                                                                                   |
| **Breakfast:**                          |                                                                                                 |                                                                                                   |
| • ½ avocado                             | • 3/4 C cooked oatmeal (1/3 C dry rolled oats)                                                    | • 1 C raisin bran cereal                                                                       |
| • 2 lg scrambled eggs                   | • 1 cup 2% milk                                                                                  | • 1 C skim milk                                                                                  |
| • 1 t butter                            | • ¼ C mixed nuts                                                                                 | • ½ C strawberries                                                                               |
| • Coffee or tea with sweetener          | • Coffee or tea with sweetener                                                                    | • Coffee or tea with sweetener                                                                    |
| **AM Snack:**                           |                                                                                                 |                                                                                                   |
| • 1/3 C mixed nuts                      | • 1/2 C plain Greek yogurt (not low fat)                                                         | • 2 T granola                                                                                   |
| **Lunch:**                              | • ½ tsp honey                                                                                    | • 175 g fat free (w sucralose) yogurt                                                           |
| • Spinach Salad with:                  | • 1 T tbsp honey                                                                                 |                                                                                                   |
| 2 C spinach, 2 T onion, 1/3 english     | • 1 T tbsp ground flaxseeds                                                                       |                                                                                                   |
| cucumber, ½ C cheddar cheese, 2 T oil   |                                                                                                 |                                                                                                   |
| and vinegar salad dressing             |                                                                                                 |                                                                                                   |
| • 3 oz sirloin steak                    |                                                                                                 |                                                                                                   |
| • 4 spears cooked asparagus            |                                                                                                 |                                                                                                   |
| • 1 t butter                           |                                                                                                 |                                                                                                   |
| **PM Snack:**                           |                                                                                                 |                                                                                                   |
| • 2 med stalks celery                   | • 2 med stalks celery                                                                            |                                                                                                   |
| • 2 T cream cheese                     |                                                                                                 |                                                                                                   |
| **Dinner:**                             |                                                                                                 |                                                                                                   |
| • Spring mix salad with:               | • Spring mix salad with:                                                                        | • ½ C blueberries                                                                                |
| 2 C spring mix, 1/3 english cucumber,   | • 2 C spring mix, ¼ red pepper, 1 T sunflower seeds, 1 T grated parmesan cheese, 2 T oil and   | • 1 chocolate chip cookie                                                                        |
| ¼ C olives, 2 slices crumbled bacon,   | vinegar salad dressing                                                                            |                                                                                                   |
| 1 T sunflower seeds, 2 T parmesan cheese, 2 T oil and vinegar salad dressing |                                                                                                 |                                                                                                   |
| • 1 C cauliflower                      |                                                                                                 |                                                                                                   |
| • 2 T grated parmesan cheese (add to    |                                                                                                 |                                                                                                   |
| salad or cauliflower)                  |                                                                                                 |                                                                                                   |
| • 1 t butter                           |                                                                                                 |                                                                                                   |
| • 4 oz chicken breast                  |                                                                                                 |                                                                                                   |


Table S2. Example diets for active 30-year-old male.

| 30 year old active male = 2,500 kcal | Very Low Carbohydrate Diet (20-50 g/d) | Low Carbohydrate Diet [< 130 g/d or < 26% of energy (143 g/d)] | ADA Guidelines [45-60% of energy (248-330 g/d)] |
|-------------------------------------|----------------------------------------|-------------------------------------------------|---------------------------------|
| Breakfast                           | 1/2 avocado                             | Breakfast                                       | 1 1/2 C raisin bran             |
|                                     | 2 lg scrambled eggs                     | • ¾ C cooked oatmeal (1/3 C dry oats)            | 1 C skim milk                   |
|                                     | 1 t butter                              | • 1 C 2% MF milk                                | 1/2 C strawberries              |
|                                     | 2 oz smoked salmon                      | • ½ C mixed nuts                                | Coffee or tea with sweetener   |
|                                     | Coffee or tea with sweetener            | • Coffee or tea with sweetener                  |                                 |
| AM Snack                            | 1/2 C mixed nuts                        | AM Snack                                        | AM Snack                        |
|                                     |                                       | • ½ C plain Greek yogurt (not low fat)           | • 1/4 C almonds                 |
| Lunch                               |                                       | • ½ tsp honey                                    | 2 T granola                     |
|                                     | Spinach Salad with: 2 C spinach, 1/2 avocado, 1/3 English cucumber, 2 T diced onion, 2 T sunflower seeds, 1/2 C cheddar cheese, 2 T oil and vinegar salad dressing | 175 g fat free (w sucralose) yogurt | 1 C cooked quinoa               |
|                                     | 2 oz top sirloin steak                  | Lunch                                           | ½ can flaked tuna               |
|                                     | 2 spears asparagus                      | • Spinach Salad with: 2 C spinach, 1/4 English cucumber, 1 small carrot (14 cm), 5 cherry tomatoes, 1/2 avocado, 2 T oil and vinegar salad dressing | 1 med apple                     |
|                                     | 1 t butter                              | • 1/3 C cooked quinoa                           | 2 oatmeal cookies               |
| PM Snack                            | 2 med stalks celery                     | • 4 oz grilled salmon                            |                                |
|                                     | 2 T cream cheese                        | • 1 C strawberries                               |                                |
| Dinner                              |                                        | PM Snack                                        |                                |
|                                     | Spring Salad with:                      | • 2 med stalks celery                            | Dinner                          |
|                                     |                                        | • 2 T peanut butter                              | • 1 C cooked pasta with 1/2 C meat sauce |
|                                     |                                        | Dinner                                          | • 2 C romaine lettuce, 1/4 C croutons, 1 T Caesar salad |

Evening Snack:
- ½ C creamed cottage cheese (4.5% MF)
- 3 slices dry salami
- 2 T butter
- 2 T grated parmesan cheese (add to salad or broccoli)
- 4 oz chicken breast
- 1 medium apple

Evening Snack:
- 1 slice whole grain toast
- 1 T peanut butter
- ½ banana
Harris-Benedict Equation for Estimating Energy Requirement:

For a 30 year old active male:

\[ 66.5 + 13.8 \times \text{weight} + 5 \times \text{height} - 6.8 \times \text{age} \]
\[ = 66.5 + 13.8 \times 70 + 5 \times 174 - 6.8 \times 30 \]
\[ = 66.5 + 966 + 870 - 204 \]
\[ = 1698.5 \times \text{Activity Factor of 1.5} = 2550 \text{ kcal} \]

For a 30 year old active female:

\[ 655 + 9.6 \times \text{weight} + 1.8 \times \text{height} - 4.7 \times \text{age} \]
\[ = 655 + 9.6 \times 60 + 1.8 \times 161 - 4.7 \times 30 \]
\[ = 655 + 576 + 290 - 141 \]
\[ = 1480 \times \text{Activity Factor of 1.5} = 2220 \text{ kcal} \]

Men – average height in Canada = 174 cm
Women – average height in Canada = 161 cm
Assuming BMI of 23, average weight of male = 70 kg, average weight of female = 60 kg

Evening Snack:
- 3 slices hard salami