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Nutrition Facts	
2 servings per container	
Serving size 2/3 cup (55g)	
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	16%
Saturated Fat 1g	2%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 100mg	20%
Total Carbohydrate 37g	74%
Dietary Fiber 4g	8%
Total Sugars 12g	24%
Includes 10g Added Sugars	20%
Protein 3g	6%

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The Paleo Diet and Diabetes

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Modern society’s shift towards more whole, minimally processed foods has supported the increasingly popular Paleolithic (Paleo) diet, also known as the Stone-Age or Caveman diet. As with any diet, the followers claim numerous health benefits including weight loss and a decreased risk for diabetes, heart disease, and cancer. But what does the research say? Are these claims valid? And what are the effects for someone with type 2 diabetes? Let’s take a look.

The Paleo diet originated mainly from the work of Dr. Boyd Eaton who proposed eating similar to how people did during the Paleolithic Era (Cordain, 2016). Theories of what they ate are based on examining skeletons (teeth and jaw bones), archaeological findings, and the climate/geography of the time (AND). Studies have produced different findings, especially in the amount of carbohydrates (3-50% of total calories), but generally agree that caloric intake was distributed evenly between carbohydrates (35%), fat (35%), and protein (30%) (Cunningham, 2012).

Foods that are thought to have been consumed and are allowed on the modern day Paleo diet include: grass-produced meats, fish/seafood, fresh fruits and veggies, eggs, nuts and seeds, and healthful oils. Prohibited foods include: cereal grains, legumes, dairy, refined sugar, potatoes, processed foods, salt, and refined vegetable oils (Cordain, 2016). With nutritious foods found on both the allowed and prohibited lists, what are the effects of following a diet missing two of the MyPlate food groups?



One small study concluded that the Paleo diet “may be beneficial for lowering blood pressure, and improving insulin sensitivity and lipid profiles” and led to “significant reductions in body weight, fat mass, and percent body fat” after twenty participants followed the diet for five weeks (Martin & Akers, 2013). A second study found the diet “improved glycemic control and several cardiovascular risk factors” in comparison to a diabetic diet for individuals with type 2 diabetes (Jönsson, et al., 2009). The authors of a third study came to the conclusion that the Paleo diet “might be an acceptable antidote to the unhealthy Western diet” if future randomized control trials or meta-analyses support this hypothesis (Tarantino, Citro, & Finelli, 2015).

The Paleo Diet, cont.

Two important points are made in this last conclusion:

- 1) more research is needed on the Paleo diet, and
- 2) the Western diet, with an estimated 40% of calories coming from refined sugars and grains, is not healthy (Ströhle & Hahn, 2011).

In the study comparing the two diets, the researchers explicitly restricted refined fats, sugar, candy, soft drinks, and beer on the Paleo diet - but not on the diabetic diet. Similarly, the participants in the first study most likely had positive results with the Paleo diet because, in general, replacing refined sugars/grains and calorie-dense beverages (consistent with the Western diet) with fruits, vegetables, lean meats, and healthy fats will produce positive health outcomes.

Individuals that are interested in the Paleo diet and have type 2 diabetes can enjoy healthy, balanced meals. However, it will be important they count starchy vegetables and fruits as their high-carbohydrate sources, not overconsume animal proteins/saturated fats that may increase their risk for cardiovascular disease, and ensure they are still meeting vitamin/mineral recommendations. Paleo diet-friendly examples Dr. Loren Cordain provides on his website include a vegetable omelet (cooked with olive oil) with a side of fruit or a snack of apple slices with walnuts (Cordain, 2016). Whole grains, legumes, and low-fat dairy can be a part of a healthy diet (although not Paleo-friendly), as long as refined grains and added fats/sugars are limited. One last thought is to consider trying “Paleo exercise” by being more active throughout the day as the cave people were when hunting and gathering.

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CME Video about Nutrition Facts Label

The last Kitchen Creations Faculty Newsletter contained information on the new Nutrition Facts Label. The FDA has collaborated with the American Medical Association to develop related education resources for medical providers. To access the video and companion patient

education materials, go to:

<http://www.fda.gov/Food/ResourcesForYou/HealthCareProfessionals>



Why Moderate Carbohydrate is Still the Gold Standard for Diabetes Management

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Low carbohydrate diets have been circulating the weight loss movement for over 50 years. As a society we gravitate toward what seems like the quickest fix. A low carb diet currently making its way around the diabetes community is the Ketogenic diet. This diet was created by Dr. Russell Wilder in 1924 as medical nutrition therapy treatment for epilepsy. He designed the diet to change the way energy is used in the body to improve or prevent seizures. The ketogenic diet focuses on high fat, moderate protein and low carbohydrate meals. Where the diabetic diet consists of 40%-60% of daily calories from carbohydrate sources, carbohydrates make up a mere 2-4% of the daily caloric intake for those on the ketogenic diet.

Naturally, carbohydrates are the preferred source of energy for all cells in the human body. When inadequate carbohydrates are consumed, the body is forced to switch to other sources such as fats, and convert them into energy for cells to use. Since carbohydrate consumption is low, blood glucose levels are lowered. When glucose is not present in the blood, there's less need for cellular uptake, thus insulin response will improve. So why might this be negative for individuals, especially those with pre-diabetes or diabetes?

The diet was never intended for use outside of medical supervision because it causes the body to switch from a natural energy process and is dangerously low in carbohydrate. People with diabetes do not have less of a need for glucose; they need help getting glucose into cells for energy. Our brain needs glucose to function properly. The lack of glucose from carbohydrates disturbs the function of tissues throughout the body. Common side effects while on the ketogenic diet include frequent headaches, muscle weakness, and diarrhea from excessive fat intake. Initially individuals may experience weight loss and improvement in insulin sensitivity. However, consistent research shows that there is a significant trend in "relapse" after the first year of weight loss because the diet is not sustainable. Individuals who experience weight loss within the first six months to one-year plateau and do not continue to lose weight. More often, individuals reach weight loss goals and relapse into old dietary behaviors and gain part or all of the weight back after one year. In diabetes management, it is extremely important to encourage behavior changes that are safe and sustainable in the long term.



Moderate Carbohydrate, cont.

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Free Resources for Your Patients

The American Association of Diabetes Educators website offers free tip sheets on a variety of issues important to those with diabetes, including:

- Healthy eating
- Blood glucose monitoring
- Insulin injection
- Lifestyle
- AADE7 Self-Care Behaviors

Many of them are available in Spanish as well as English. To access them, go to:

[https://
www.diabeteseducator.org/patient-
resources/tip-sheets-and-
handouts](https://www.diabeteseducator.org/patient-resources/tip-sheets-and-handouts)