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**KENDALL REAGAN
NUTRITION CENTER**
COLORADO STATE UNIVERSITY

Nutrition Connection

The latest news and events from the [Kendall Reagan Nutrition Center](#) at Colorado State University

Ketogenic Diet

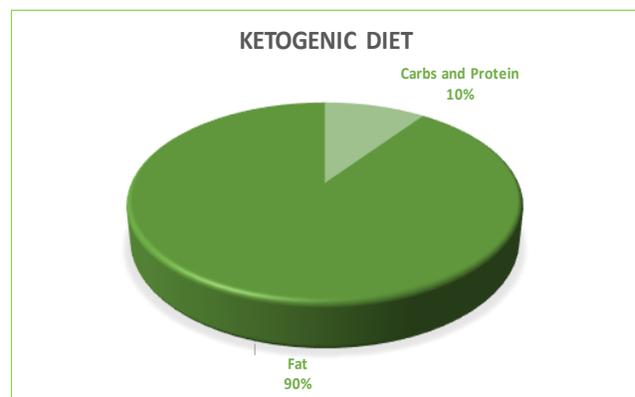
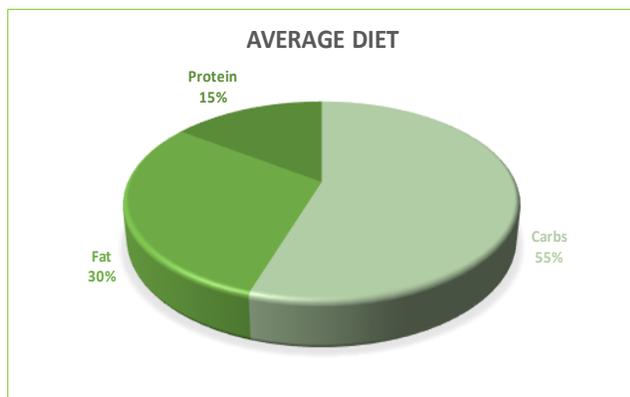
“Keto- what?!” You probably have either said this yourself or have heard someone else say this. The ketogenic diet, originally used to treat epilepsy in children and help reduce seizure frequency, has recently gotten more attention as a mainstream diet touted for weight loss. But what exactly is it all about and is it healthy?

The ketogenic diet is a high fat, low carbohydrate diet with moderate amounts of protein. The ratio commonly used is 90% fat to 10% protein+carbohydrate. By reducing the amount of carbohydrate intake, the body is forced to use fat stores as its energy source instead of its preferred source of glucose. The fat from those stores is converted into ketones, which the body can utilize as energy. This process is referred to as ketosis.

Precautions

While the use of ketones produced from fat stores may sound appealing for weight loss, it can actually be life-threatening. Ketones are highly acidic and when large amounts are produced in the body they begin to build up and “spill over” into the blood and urine resulting in ketoacidosis. At this point the chemical composition of your blood becomes completely out of balance and can cause potential negative effects on the heart, kidneys, bones, and central nervous system, possibly leading to a coma or even death.

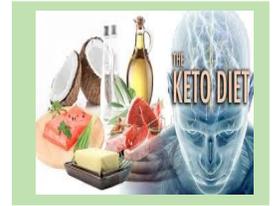
The brain prefers glucose as its primary energy source to fuel the central nervous system and the shift to ketones can cause brain fog.



Potential Pros and Cons of the Ketogenic Diet

Potential Pros:

- Proven reduction of epilepsy symptoms in children
- Cited decrease in seizure occurrences in some adults



Potential Cons:

- Increased cholesterol levels, possibly leading to bigger risk of heart disease
- Increased risk for kidney stones due to acidic ketones
- Excessive excretion of calcium, raising risk for osteoporosis
- Constipation due to decreased consumption of fiber-containing foods
- Deficiencies in several vitamins and minerals due to extreme food restriction
- “Keto-flu” symptoms such as upset stomach, vomiting, fatigue, and nausea
- Rigid diet involves strict meal planning and exact food weight portions and tracking
- Decreased emotional well-being related to food restrictions and brain fog
- Limited freedom to participate in social activities because of dietary limitations
- Medical supervision due to potential life-threatening conditions

What to Eat?

Now you may be wondering, what kinds of foods are eaten on this diet and which foods are not?

Foods Included on the Ketogenic Diet:

- Fat from sources such as:
 - meat, poultry, fresh fish, shellfish
 - whole eggs
 - cheese
 - nuts
 - oils, creams, butters, mayonnaise
 - avocados
- Vegetables low in carbohydrates such as :
 - leafy greens, broccoli, cauliflower, celery
- Non-nutritive (sugar free) sweeteners

Foods **Not** Included on the Ketogenic Diet:

- Vegetables high in carbohydrates such as:
 - peas, corn, potatoes, peppers, onions, and tomatoes
- All varieties of grains such as:
 - pastas, grains, bread, and desserts
- Fruits
- Legumes
- Alcohol

Bottom Line:

The ketogenic diet might be an appropriate choice if your child has epilepsy or if you experience frequent seizures. In either of these cases, discuss this diet with a health professional and take a multivitamin daily to make up for any nutrient deficiencies.

The ketogenic diet is not recommended as a weight loss plan because of its extreme nature and potential life-threatening consequences. This restrictive diet is not a sustainable lifestyle approach that can be followed long-term as it omits whole food groups resulting in an overall poor nutrition and health status.

Instead, eat a balanced diet full of wholesome ingredients like fruits, vegetables, legumes, whole grains, proteins and healthy fats. Being active and drinking water throughout the day will also contribute to a healthy lifestyle.



Bacon Wrapped Dates

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Combining the bitter taste of dates and the salty taste of bacon provides a highly flavorful snack, perfect for any summer barbeque!

Serving Size: 2 pieces

Yield: 18 servings

Ingredients:

- 1 pack center-cut uncured bacon
- 36 whole, pitted dates

Directions:

1. Preheat oven to 450° F.
2. Heat a medium sauté pan over medium heat. Add enough bacon slices to cover, and cook until golden brown and slightly crisp in places, flipping half way through. Transfer to a paper towel lined plate and repeat with remaining bacon, draining bacon grease as necessary.
3. Cut strips of bacon into thirds.
4. Using one cut bacon slice, wrap each date, and secure with a toothpick.
5. Place on a rimmed baking sheet and bake for 8-10 minutes.
6. Allow to cool for 5-10 minutes before serving.

Nutrition Information / Amount per serving:

Calories	150	Protein	2.2 g
Total fat	1.4 g	Total Carbohydrates	36.0 g
Saturated fat	0.7 g	Dietary Fiber	3.2 g
Cholesterol	5.0 mg	Sodium	90.5 mg



