



Longevity and Eating Correctly

Dr. Charles Shaffer

There has been a breakthrough in new data over the last few years regarding the relationship between the ketogenic diet and longevity. One of the first studies looked at the effect of the ketogenic diet on adipose tissue, otherwise known as fat tissue. There were also several other markers of health on patients who did not exercise effectively. The individuals were divided into three groups based on their diets. The diets observed were the Western diet, the American diet, and the ketogenic diet. The Western diet proved to be high in carbohydrates and fat but low in protein while the typical American diet was high in carbohydrates but low in fat as well as protein. Individuals on the ketogenic diet were eating foods comprised of high fat and low carbohydrates. After six weeks each individual's body mass, body fat, liver triglycerides, glucose, instant and total cholesterol were measured. The results showed those who were on the ketogenic diet yielded the lowest, or best, results.

WHAT YOU'LL FIND INSIDE:

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Once again, the ketogenic diet has been shown to improve the metabolic state.

The human body is an exceptionally complex organ system with a host of signaling processes that perpetually go in and out. In 2015, it was shown the ketogenic diet enhances immunity. Because of this, it is helpful with aging due to the immune system gradually deteriorating and declining with age which reduces our capacity to fight infection. Research focused on aging has indicated caloric restriction and fasting increases longevity. The ketogenic diet often involves a form of caloric restriction compared to traditional diets; this is due to a reduction in appetite and lowered sugar levels. Glycation is a process in which sugar molecules bond to proteins as well as fats and results in the formation of advanced glycation end products. Fructose has been known to accelerate glycation in the body ten times faster than traditional glucose.

Other new data exhibits the ketogenic diets ability to protect the brain from aging over time. Over our lifetime we tend to build up free radicals and reactive oxygen species. A substance created by mitochondria can bind to ourselves causing damage and an increase in inflammation in the cellular level with DNA and other proteins. However, there is a solution. Antioxidants containing extra electrons can donate to free radicals to make them stable thus decreasing damage and slowing the aging process. This solution can increase the body's production of antioxidants and give back stamina as well as increasing cognition.

Duke University recognizing the ketogenic diet and its impact is helpful for those who live with chronic pain. Dr. Eric Westman recently gave an address to the American Society of Pain Management regarding recent research exhibiting individuals in the ketogenic state require less opioids and can be managed on nonsteroidal anti-inflammatory drugs much easier.

Here's some fascinating research: animals with Parkinson's disease demonstrate the ketogenic diet drastically alleviates the impaired motor symptoms, reduces the loss of neurons in the brain, decreases the dopaminergic loss, and cuts down the narrow inflammation by one-half. Mitochondria cells are the energy power houses and are responsible for turning carbohydrates, amino acids, fatty acids, and ketones into usable energy known as ATP. Mitochondria play a role in the process of breaking down and recycling damaged and unnecessary proteins in the cell which is essential for proper cell function. While it is not known what exactly causes Parkinson's to develop, it is clear that those with it have impaired mitochondrial function. Individuals diagnosed with Parkinson's diseases develop display at a later level of inflammation in the brain; this is likely due to energy deprivation and the inability to clear damage proteins. However, ketogenesis has been shown to alleviate most of these complaints.

As we continue to explore new avenues of how to eat correctly by alleviating carbohydrates and sugars from the diet we are learning that the body responds correctly. Also, as we continue to explore the advantages of the ketogenic diet more and more data will champion the cause of how to eat correctly. If you follow what we ask you to do you will notice an improvement in how you sleep, feel, and act.

Blessings,
Chuck Shaffer MD

Spring Into Meal Prep

Tricia Foley

Spring into Meal Prepping Mode

Spring has sprung and travel season is in full swing. Many people find it challenging to stay on track during this time of year due to busy schedules and constantly hitting the road. One strategy that works well for many is meal prepping! With a little preparation you can have what you need to keep you on track and working toward your weight loss goals.

Three Steps to Meal Prep

Step one: Supplies- Make sure you have containers and ice packs handy!

Step two: Plan- have a routine grocery store day. If you know you're headed out of town make it a point to plan a grocery day prior to your departure. A calendar is a great tool to remind you what day is best to do this based on your regular schedule.

Step three: Prep-Think about which day is most feasible during the week? For many prep day may fall on the weekend. Getting into a normal routine will set you up for long term success! Going on a trip? Plan time for prepping before you hit the road.

Meal Prep Ideas

Chop and Bag:

Chop and rinse your celery, keep it in a mason jar standing up with water for a fresh, crisp quick snack

Pre-pack your nuts. Set out 5 baggies and put 20 nuts in each bag. Label M-F for a quick, pre-portioned grab and go snack while at work each day.

Putting dinner away? Save some for lunch. Packing leftovers during dinner cleanup is a great time saver! Throw in a string cheese and a piece of fruit and you're good to go!

Mason jar Salads (make 3-4 at a time): If you build it, you'll eat it! Layers are key!

- Pour your dressing in the jar first- no one likes a mushy salad!
- Next, add heavy veggies like peppers, mushrooms, broccoli or green beans
- Then add almonds or walnuts
- Put your protein in the middle- chopped hard boiled eggs, canned chicken or tuna are quick and easy options!
- Then add lighter veggies or fruit like apples, grapes, cucumbers or even avocado
- Top it off with leafy greens and a sprinkle of cheese.
- Ready to eat, shake it up for a delightful on the go salad!

Prep your protein! Use your crock pot as part of your morning routine. Throw a pound of frozen chicken (turkey, roast) into a crockpot before work. Turn it on low and you will have tender, pull apart chicken as a base for your meals for days to come!

- Monday- Chicken with frozen broccoli and cheese
- Tuesday- Chicken “noodle” soup with spaghetti squash as noodles with sauteed celery and peppers thrown in with the chicken broth
- Wednesday- Chicken taco salad with lettuce, peppers, onion and a sprinkle of McCormick taco seasoning to spice things up!

The Recipe of the Month

Shrimp Sheet Pan Fajitas

- 1 lb shrimp, raw, deveined and shelled
- Juice of one lime
- 1 red bell pepper, sliced
- 1/2 green pepper, sliced
- 1/2 yellow onion, thinly sliced
- 2 tsp plus 1/3 C olive oil divided
- 2 cloves garlic
- 1/2 tsp dried oregano
- 1/2 tsp chili powder
- 1/2 tsp sweet paprika
- 1/2 tsp cayenne pepper
- 1/4 tsp ground cumin

Directions

Preheat oven to 400 degrees. Toss peppers and onion with 2 tsp olive oil until coated then scatter onto a sheet pan in single layers.

In a blender, add lime juice, garlic and remaining olive oil- then add spices and pulse to combine. Marinate by adding shrimp and blended ingredients in a ziplock bag for 15 minutes.

Meanwhile, roast the peppers and onion for 10 minutes. Remove the shrimp from the marinade and place onto sheet pan, place back in oven for 8 more minutes or until shrimp are pink.

Enjoy over riced cauliflower, salad or by itself!



**Let's Get
Cooking!**

