Combining Ketone Salts with a Low Carb/Keto Diet

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Until about thirty years ago, if you wanted to lose weight, the doctor would likely tell you to cut down on sweets and starchy foods. Then along came the concept of the "low-fat diet" based on, what has turned out to be, flawed research. Rates of obesity and diabetes in the USA and many other countries have been escalating ever since. Added sugar in the diet has increased from about 6 pounds per person per year in the early 1800's to more than 120 pounds now for the average person in the USA. That is a lot of extra sugar!

Why cut down on sugar and other carbohydrates?

For most people, eating a low-fat diet turns into eating a high-carbohydrate (sugar) diet, and eating too much sugar is a big problem for many reasons...a big risk for diabetes, dementia, and inflammatory diseases for starters. Diabetes increases the risk of developing dementia from about 5% to 30%. When you eat sugary foods, your body will crave more sugar.

Recent studies have also shown that low-carbohydrate diets may be beneficial for people with mild cognitive impairment, Alzheimer's disease, and Parkinson's disease. A recent study in people who are in assisted living has found that just cutting portions of carbs in half at two meals per day can reduce the amount of sugar in the blood by about 40%!

How can I reduce sugar/carbohydrates in my diet?

The simplest way to think of a low carb diet is to...cut down on sweets and starchy foods! These include the obvious sweets like candy, pies and cakes, added sugars (including agave and honey), starchy vegetables like potatoes, corn and peas, beans, rice and other grains, anything made with wheat or rice flour (breads, pasta, pastries, crackers, cookies, cereals, pancakes, muffins), fruit juices and most fruits. Berries such as blueberries and strawberries are relatively low in sugar, so would be good choices in limited amounts. Aiming for less than 50 grams per day is reasonable and will support ketosis for most people. Dropping to less than 20 grams per day for the first 2 or 3 weeks can hasten fat burning. You can accomplish this by getting most of your carbs from vegetables and perhaps choosing ¼ to ½ cup of berries or a slice of whole grain bread or ¼ cup of whole grain rice once per day as part of a meal. See **Carb Chart** below.

Protein is very important to maintain muscle strength and function

Your body needs a certain amount of protein to maintain muscle and other lean tissues, especially while on a fat losing diet, but if you eat too much protein, some of your muscle may be broken down and converted to sugar. Our goal is to lose fat, not muscle. The best way to accomplish this is to adopt a ketogenic diet, which is a diet that raises levels of ketones. This is a diet that is low in carbs and higher in fat, with enough protein to maintain our muscle mass. With a ketogenic diet, we switch from mainly burning glucose (sugar) for fuel to burning fat, and do not have to tap into muscle so much to compensate for eating fewer calories.

Supplementing with <u>ketone salts</u> or <u>ketone esters</u> can enhance fat burning by raising ketone levels even more while helping to preserve muscle. Ketones lower glucose levels, which lowers insulin levels (insulin puts and keeps fat on our bodies), and ketones also stimulate fat burning.

A reasonable amount of protein per day is ½ gram for each pound that you weigh. So that would be 75 grams of protein for someone who weighs 150 pounds. 75 grams of protein provides about 300 calories. Doubling the amount to as much as 1 gram for each pound that you weigh might not interfere with staying in ketosis, but this varies for individuals. A couch potato might need less, and an athlete or body builder might need up to twice as much protein. See **Protein Chart** below. Think of 3 ounces of meat or fish as about the size of a deck of cards or the palm of your hand.

Eating enough healthy fat is important

One very important part of ketogenic/low carb dieting often overlooked is eating enough fat, which will help keep ketone levels elevated and promote burning fat as our primary fuel. Mediumchain triglycerides (MCTs) are converted by the liver to ketones, so ketone levels can be enhanced by adding MCT oil and coconut oil, which is 60% MCTs, to the diet. Some other sources of healthy fats include olive oil, olives, avocados, nuts, nut butters, nut milks and seeds. If you like cow or goat milk and milk products like yogurt or soft cheeses, choose full-fat versions, which contain some MCTs, and look for products with no added sugar. If you are cutting calories to lose fat and eating a low-carb diet, you will burn more of your stored body fat as fuel. A reasonable goal is to aim for between 45 and 75 grams of fat per day, which equates to 405 to 675 calories per day – the higher the percent of fat as the total calories in the diet, the higher you can expect your ketone levels to be. A tablespoon of oil contains about 14 grams of fat, one large avocado has 27 grams of fat, and an ounce of nuts (a small handful) has about 10 to 15 grams of fat. Check package labels for milk and milk products.

Don't forget to eat vegetables

And don't forget your vegetables! Vegetables contain carbohydrates but most are high in important fiber and are a great source of many vitamins and other important nutrients. Eliminate or minimize the starchy vegetables like white and sweet potatoes, corn and peas. Include at least two cups of leafy green vegetables (1-2 grams of carbs total) and several servings per day of various colors of other fresh veges such as broccoli, Brussels sprouts, cauliflower, carrots, peppers, onions, tomatoes, and squash. Most of these vegetables contain 2 to 4 grams of non-fiber carbs per one-half to one-cup servings. Fresh frozen veges are nearly as good as fresh as far as providing nutrients. Organic is even better.

Putting it all Together - Tips for getting started

Get rid of tempting high-carb foods from your home. Plan out your meals for several days at a time and shop for the foods you will need. Keep a record of what you are eating to keep you honest and help you find problems and tweak the diet if you aren't losing weight. Get a good book that will give you total calorie and gram counts for carbs, fat and protein. Find your favorite foods and write them down for easy reference. There are also great books and websites available now to support ketogenic dieting with tasty recipes for meals, snacks and some amazing desserts.

Consider adding <u>powdered coconut oil</u> and/or <u>MCT oil</u> to make a creamy coffee or tea in the morning to get off to a ketogenic start. Use a <u>ketone salt</u> or <u>ketone ester</u> supplement to increase

ketone levels. Ketones have been shown in studies to promote fat burning and suppress appetite as well. Drink plenty of water - 8 to 10 glasses per day. (See <u>marynewport.pruvitnow.com</u>)

Eat only when you are hungry and stop when you begin to feel full. Focus mainly on protein, vegetables, and oil for your meals. Consider low-carb snacks once or twice a day such as cheese, nuts, coconut milk, or almond milk, or veges with cream cheese or a high fat dip.

You might not need to count calories to be successful, but if you do, aim for between 1250 and 1600 calories per day depending on how big you are. If you are starting out at more than 250 to 300 pounds, you might even lose weight on 1800 to 2400 calories per day. As you lose weight you can adjust the calories downward to keep losing.

Aim for 20 to 50 grams of carbs per day, mainly as vegetables, at least ½ gram of protein per day for each pound that you weigh (or more if you are an active athlete), and at least 45 to 75 grams of fat per day.

Go one step further and add exercise to your plan. A study by Dr. Stephen Cunnane and associates reported that 30 minutes of walking three days per week can triple ketone uptake in the brain!

PROTEIN CHART

# GRAMS PROTEIN PER SERVING	PROTEINS
25	3 ounces of cooked beef, pork, poultry, lamb or tuna
	1 cup cottage cheese or ricotta
21	3 ounces of most fish (except tuna and cod) or lobster
	1 cup boiled green soybeans
15	3 ounces cod, crab or shrimp OR 1 cup plain Greek
	yogurt
8	2 tablespoons peanut or almond butter
7	1-ounce hard cheese
6	1 egg OR 8 ounces of milk OR 1-ounce soft cheese,
	such as brie or blue cheese OR 1 to 1 ½ ounces nuts OR
	½ cup most beans
2 or less	½ cup most cooked vegetables or 1 cup leafy green
	vegetables
	1/3 cup undiluted coconut milk or 1-ounce grated
	coconut
	2 slices of bacon
0-1	Nearly all fruits, 1 medium or typical serving

CARBOHYDRATE CHART

# CARBOHYDRATE PER SERVING (minus fiber)	SOME FOODS WITH CARBOHYDRATES
25	½ medium white potato (flesh and skin)
20	½ cup cooked whole wheat egg noodles or pasta
	½ cup most beans (except green string beans)
	½ cup long grain brown or white rice, cooked
15	½ large (6 ½" diameter) whole wheat pita
	½ medium whole grain bagel (3" diameter for whole
	bagel)
14	3 cups popcorn OR ¼ cup granola OR ½ medium sweet
	potato
13	½ medium banana OR 4 ounces orange juice
	½ cup regular cream of wheat, prepared
12	1 medium orange OR ½ cup baked potato, flesh only
	1 x 4" pancake
11	1 slice whole wheat bread (1 oz)
10	1/4 cup long grain brown rice, cooked OR ½ medium
	pear
9	1/4 cup cooked corn OR 1 medium peach OR ½ medium
	apple
6	½ cup plain Greek yogurt
4	½ cup halved strawberries
3	½ cup raspberries OR ½ cup ricotta or cottage cheese
2-4	1 medium apricot, ½ cup raspberries, 1 medium
	avocado
	4 asparagus spears
	1 ounce almonds, peanuts, Brazil nuts, walnuts,
	macadamias
	½ cup cooked broccoli, cauliflower, turnips, green or
	string beans, or turnips, chopped bell or sweet peppers
	1 cup boiled, chopped kale or other "greens"
	1 cup chopped cucumber or celery
	1 tablespoon catsup or sweet relish
0-1	1 cup of most lettuces, spinach, other leafy greens and
	cabbages
	1 medium carrot or radish
	1 cup cooked yellow or zucchini squash
	1-ounce pecans or pistachios
	1 tablespoon mayonnaise, mustard, dill relish, vinegar