Low-Carb Mediterranean Diet™

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The Low-Carb Mediterranean Diet is designed specifically for people who have one or more of the following conditions:

- ■Type 2 diabetes
- ■Prediabetes
- ■Metabolic syndrome
- ■Excess body weight they want to lose with a low-carb Mediterranean-style diet

Diabetes and prediabetes always involve impaired carbohydrate metabolism; metabolic syndrome and simple excess weight often do, too. Over time, excessive carbohydrate consumption can turn overweight and metabolic syndrome into prediabetes, then type 2 diabetes.

The key feature of the Low-Carb Mediterranean Diet is carbohydrate restriction, which directly addresses impaired carbohydrate metabolism naturally.

Why "Mediterranean"? The traditional Mediterranean diet is widely recognized for its promotion of health and longevity. Many of its components are compatible with low-carbohydrate eating. My primary goal with this program—the world's first low-carb Mediterranean diet—is to reap the health benefits of Mediterranean-style eating without losing control of blood sugars in diabetics and prediabetics.

The foundation of the Low-Carb Mediterranean Diet (LCMD) is the Ketogenic Mediterranean Diet (KMD) outlined elsewhere. The Low-Carb Mediterranean Diet loosens up on food restrictions and introduces additional carbohydrates, as long as glucose control and weight management don't deteriorate.

You could call the Ketogenic Mediterranean Diet the Conversion Phase because your body is switching to an energy metabolism based on fats and proteins instead of carbohydrates. Or we could call it a Watershed Phase since a watershed is "a critical point that marks a division or a change of course; a turning point."

Some may stay on the KMD long-term, so it's free-standing.

But others will move on to the Low-Carb Mediterranean Diet, adding more energy and nutrients from plants while managing blood sugar levels and weight.

Eighty-five percent of people with type 2 diabetes carry excess weight. The Ketogenic and Low-Carb Mediterranean Diets will help with that issue. But just as importantly, they lower and smooth out the elevated blood sugars characteristic of diabetes and prediabetes, regardless of weight.

I assume readers of this document have been following the Ketogenic Mediterranean Diet for at least a couple weeks, if not for several months or more. I recommend at least 8 to 12 weeks. Many followers—diabetic or not—wanted to lose some excess weight with a Mediterranean-style diet. Others, already at healthy weights, just wanted better control of blood sugars.

At this point you're ready for a change either because you've reached your weight-loss goal or you want a greater variety of carbohydrates (carbs). Stay familiar with the KMD because it is the foundation for everything that will follow. You're not really done with it; you're adding to it, moving from a *very*-low-carb diet to a low-carb diet.

Perhaps you've been losing weight steadily with the KMD and are not yet at your goal weight but need more food variety. Many continue to lose excess weight with the Low-Carb Mediterranean Diet, although it tends to be easier with the KMD. If weight loss stalls, just return to the KMD.

Alternatively, you may be interested in eating more of the plant-based foods that seem to yield the documented health benefits of the traditional Mediterranean diet.

The KMD may be perfectly healthy long-term; we just don't know for sure. On the other hand, there is at least some evidence that additional carbohydrates, as in the Low-Carb Mediterranean Diet, may be even healthier. For example, some scientific studies link fruit and vegetable consumption with lower rates of cancer, stroke, and coronary heart disease. [Other studies find no benefit.] Whole grain consumption is associated with lower rates of cardiovascular disease, including heart attacks and strokes. Legumes are a great source of fiber to counteract the constipation common with very-low-carb diets like the KMD. Fruits and vegetables as components of the Mediterranean diet seem to contribute to longevity.

And many carbohydrates just plain taste good!

Nearly all the studies linking fruits, vegetables, whole grains, and legumes with improved health were done in general populations, not specifically in diabetics. Whether diabetics and prediabetics benefit is not entirely clear. If such consumption raises blood sugar levels too much, then health outcomes will be worse.

A quick reminder for first-time readers here: Low-carb eating has the potential to drop blood sugar levels dangerously low in people with diabetes who take certain medications to control blood sugar. If this applies to you, you must work closely with your personal physician and review my online document, "T2 Diabetes and Low-Carb Diets" at http://diabeticmediterraneandiet.com/t2-diabetes-and-low-carb-diets/.

By the way, I use "blood sugar" and "glucose level" interchangeably.

Overview of the Low-Carb Mediterranean Diet

You've been eating 20–30 grams of carbohydrate daily on the KMD. Now you're going to increase to 40-100 grams daily, gradually adding carbs that may have beneficial effects on health and longevity. Adding excessive carbs will lead inevitably to regain of lost weight, a stall in weight-loss progress, or to elevated blood sugars in diabetics and prediabetics.

Most people reading this have type 2 diabetes, prediabetes, or metabolic syndrome and have had trouble controlling their weight or blood sugar levels with their former ways of eating. A few readers are entirely

new to the world of diabetes. In all these cases, we want to avoid adding carbohydrates that sabotage control of blood sugars and metabolic syndrome. That sabotage may take two forms:

- 1. Eating particular carbs that will spike your blood sugars too high and for too long
- 2. Excessive amounts of carbs, which will do the same

For non-diabetics and those with normal carbohydrate metabolism, carbs that potentially raise blood sugar too much are not an immediate issue. But even for non-diabetics, these glucose-producing foods are associated—at least in women—with excessive body weight, future diabetes, heart disease, and gallbladder disease. So we may as well avoid them. For more information, read about high-glycemic-index eating.

If you are not down to your goal weight already, adding too many carb grams now will impair your ability to convert your body fat into energy. Eat too many carbs, and your body will use them for the energy it needs rather than your body's fat. You may well continue to lose weight eating 40, 60, or 100 grams a day, but maybe not. Everybody is different. Many diabetics will not be able to handle over 70 grams of carb daily. Some, not even that much. Continue to weigh yourself daily. Diabetics must monitor their blood sugar levels periodically and often.

Implementation of the Low-Carb Mediterranean Diet

So, what healthy carbs are we going to add to the Ketogenic Mediterranean Diet? Fruits, more vegetables (including starchy ones), legumes, yogurt and other dairy products, and whole grains.

To avoid carbohydrate overdose and loss of glucose control, we're adding back carbs incrementally.

I've divided the new carbohydrates into groups and specified a serving size for each source of carbs. Each serving has about 7.5 grams of digestible carbohydrate.

What you do next is add one daily carb serving from the list of *Carb Groups and Serving Sizes* (see the end of this document) and see what happens with your weight—and glucose levels if you're diabetic or prediabetic—over the next week. This is not one carb serving on Monday, two on Tuesday, three on Wednesday, etc. It's seven new carb servings per week, one on each day.

Essentially, you still eat the Ketogenic Mediterranean Diet but are adding a daily carb serving. If your weight loss stalls, you gain weight, or glucose levels rise significantly, you've added too many carbs and must cut back, or try different carb sources. See my online document "What is Normal Blood Sugar" at http://diabeticmediterraneandiet.com/what-is-normal-blood-sugar/.

On the other hand, if you handled the extra carb serving without trouble for a week, you may add one more daily carb serving. Monitor your progress for another week.

If you're handling those carbs, you may increase by one additional carb serving every week. You've added too much carb if your weight loss stalls, you gain weight, or your glucose levels rise too much. Then you must cut back or try different carbs—especially different carb groups.

Many people who have diabetes or weight management problems will not be able to increase carbs to more than six additional daily servings. Either weight or glucose levels will rise. But that's OK because you don't necessarily need more carbs for a long and healthy life. For many folks, additional carbs are unhealthy.

Diabetics and prediabetics should probably distribute, eventually, their additional carbs evenly among two or three daily meals. Eating two or three new additional carb servings all at once as a bedtime snack, for example, is likely to cause high blood sugars through the night and into the next morning. On the other hand, those same carbs eaten at breakfast and followed by an exercise session an hour later might be

handled just fine. Your home glucose monitor will be indispensable in this respect. Every diabetic and prediabetic reacts differently to carbohydrate loads. If you don't have a glucose monitor, you're just guessing or totally in the dark.

By the way, if you wish to cut back on your animal protein consumption at this point, feel free. It's your choice. I'd continue to eat cold-water fatty fish at least two or three times weekly, along with the usual olive oil and nuts.

Are you with me so far?

OK, so you're going to add some carbs to your diet, but which ones? I'll assume at this point you have diabetes, prediabetes, or metabolic syndrome. For the potential health benefits, I'd add carbs in this order:

- ■fruits
- ■more vegetables
- ■legumes
- ■yogurt and other dairy products
- ■whole grains

This is just a loose guideline, not a commandment. I suggest everyone eventually add one or two servings of fruit daily, classic fruits rather than technical fruits like tomato and avocado already on the KMD. Legumes, yogurt and other dairy products are listed after fruits and veggies because the evidence in favor of their long-term health benefits is not as strong.

For people with normal carbohydrate metabolism, I'd list whole grains second or third rather than last, but in diabetics...

...grains are problematic. Diabetics are prone to developing blockages in their heart arteries that can cause heart attacks and premature death. Consumption of whole grains on a regular basis is associated with significantly lower risk of developing heart disease. But there's a fly in the ointment. Grains, even whole grain products, have a relatively high glycemic index, meaning they cause spikes in blood glucose which could have adverse long-term impact. Nearly all the studies linking whole grain consumption with less heart disease were done in the general population, not the diabetic population. Whole grains could be even healthier for diabetics than the general population—we just don't know.

Diabetics who see a significant spike in blood sugar after grain consumption could address that with higher dosages of diabetic medications. Would that be healthier than avoiding grains? As of 2010, we just don't know.

Eating grains in a meal containing fat and protein also tends to smooth out or eliminate blood sugar spikes. That goes for other high-glycemic-index carbs, too, like white potatoes.

Yogurt deserves special mention because it's a component of the traditional doctor-recommended Mediterranean diet. It's a great source of calcium, a critical mineral for healthy bones, nerves, and muscles. Does it have anything special you couldn't get elsewhere? Probably not.

Now you're ready to enhance the KMD with an extra carb serving daily. Why not start with a fruit? Choose a variety of items within any given carb group, and try eventually to eat from multiple carb groups. Variety ensures you get adequate vitamins, minerals, and phytonutrients.

Nevertheless, just to be sure, continue your supplements as on the KMD.

Things are getting a little complicated now. If you lose your way and regain weight or glucoses get out of control, you can always return to home base: the Ketogenic Mediterranean Diet.

Carb Groups & Serving Sizes for the Low-Carb Mediterranean Diet

(each serving has about 7.5 g of digestible carbohydrate) (g = grams)

FRUITS

apple, 1/3 of medium (54 g) banana, 1/3 (39 g) peach, 1/2 of medium (75 g) strawberry halves, 2/3 cup (75 g) blueberries, 1/2 cup (75 g) raspberries, 1 cup (123 g) blackberries, 1 cup (144 g) cantaloupe, 1/2 cup cubes (80 g) honeydew, 1 cup cubes (85 g) date, medjool, ½ date (12 g) orange, navel, ½ (70 g) pear, 1/3 of medium (60 g) pomegranate, 1/4 of 4"diam (70g) tangerine, ½ (44 g) grapefruit, ½ (61 g) cherries, sweet, raw, 1/3 cup (45 g) grapes, 1/3 cup (50 g) raisins, seedless, 20 (9 g) nectarine, medium, ½ (70 g) mango, 1/3 cup slices (55 g) pineapple, raw, 1/3 cup chunks (55g) lime/lemon juice, raw, 2 limes or lemons (88 g) watermelon, 2/3 cup diced (100 g)

VEGETABLES

potato, white, raw, flesh and skin,
1/4 of medium potato (53 g)
corn, canned, drained, 1/4 cup (41g)
carrots, raw, strips or slices, 3/4 cup (92 g)
sweet potato, raw, 1/3 of 5 inch-long tater (45 g)
beets, canned, drained solids,
3/4 cup slices (130 g)
peas, green, canned or frozen, 1/2 cup (67 g)
spaghetti squash, cooked, 1 cup (155 g)
KMD mixed veggies, 200 g

LEGUMES

peas, split, mature seeds,
cooked/boiled, 1/4 cup (49 g)
peas, black-eyed (cowpeas),
canned 1/4 cup (60 g)
soybeans, mature seeds, roasted, 1.5 oz (42 g)
soybeans, mature seeds,
cooked/boiled, 1 cup (170 g)
beans, mature seeds,
cooked/boiled, 1/4 cup (43 g)
(beans = black, kidney, navy,

pinto, white, fava, chickpeas /garbanzo)

YOGURT AND MILK PRODUCTS

yogurt, plain whole milk, 1/2 cup milk, whole, 1/2 cup milk, 1% milkfat, 1/2 cup Fage Greek, "total 2%", 1/2 cup Voskos plain original Greek yogurt, 1/2 cup

GRAINS

bread, whole wheat, 1/2 slice (15 g) bread, Ezekial 4:19, 1/2 slice pasta, 100% whole grain, dry, 12 g Ry-Krisp crackers, 4.5 x 2.5" (11 g) Triscuit crackers x 3 (14 g) cracker, whole wheat, 14 g tortilla (by Mission), 8" whole grain, 1/3 of tortilla (16 g) oats, dry whole grain, 1/3 cup uncooked (13 g) oats, steel-cut, uncooked, 1.3 tbsp (13 g) rice, brown, cooked, 3 tbsp quinoa, cooked, 3 tbsp (35 g) barley, pearled, cooked, 3 tbsp (30g) shredded wheat, plain, sugar-free (11 g) cereal, FiberOne, original, plain, 1/3 cup or 5 tbsp Kellogg's All-Bran original or All-Bran Bran Buds, 1/4 cup (15 g)

Welcome to the Low-Carb Mediterranean Diet!

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