

Diabetes Basics

(Pre-Diabetes & Type 2 Diabetes)

1. It is very important to keep your blood glucose (sugar) at a healthy level. Uncontrolled Diabetes (high blood glucose) that persists over time, puts you at high risk for "Diabetic complications" which include:

<ul style="list-style-type: none">*stroke*kidney disease*heart attack*stomach upset (gastroparesis)*erectile dysfunction*neuropathy (nerve damage with pain/weakness)	<ul style="list-style-type: none">*skin issues*eye issues*foot trouble*ketoacidosis*anxiety/depression*there are more <p>diabetes.org/diabetes/complications</p>
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2. The best way to know if you are at risk for these complications is to monitor blood sugar at home by establishing a pattern of glucose results with consistent testing. This can be achieved by wearing a CBG (continuous blood glucose) monitor inserted under your skin, or by pricking your finger with a glucose meter at the time you'd like to check your sugar. Test your glucose two hours after your largest meal to find out how certain foods, portion sizes, carb amounts, exercise, sleep, emotions, etc. affect your blood glucose. Keeping **fasting (before you eat anything in the morning) blood sugar 70-130** is a GENERAL goal. This, along with **blood sugar of less than 180 two hours after you eat**, will help prevent Diabetic complications. Other measures of glucose control are serum insulin and HgbA1c. Keep records of your glucose levels and take them to appointments with all of your health care providers, or bring your meter with you. If high (above goal numbers) or low blood glucose (less than 70) occurs, try to identify why. Implement strategies to avoid this undesirable situation in the future.

3. Carbs raise glucose more than protein or fat. For better blood sugar levels, avoid eating large amounts of carb at one time. A general guideline is to limit Total Carbohydrates to 45-60 grams per meal (and ~15 grams for snacks, if hungry). Achieve better glucose control with smaller meals and snacks, instead of eating 2-3 times per day. Check

out ([Free download Tips to Decrease Portion Control guide at www.nutritiontransformation.com](http://www.nutritiontransformation.com)). The best whole grain breads, cereals, pasta, and rice have a low "total carbohydrate" content, and at least 3 grams of fiber per serving. It's very important to choose foods in their **whole, natural, organic form** as much as possible, and avoid processed foods (ex. organic sweet potato with the skin instead of sweet potato fries, or an organic banana instead of banana chips that have sugar added). All sweeteners should be limited, but preferred options are real fruit or juice, coconut sugar, monk fruit, local honey, maple syrup, and allulose. Fiber helps prevent glucose from spiking too quickly. By cooking, cooling, then reheating rice/pasta/potatoes/oats, you create digestive resistant starch. This allows less carb to be absorbed and promotes gut health, which in turn promotes overall health. Carbs that are most detrimental to our health are "added sugars" (sweet carbs not naturally occurring in foods). Common sources include sugar-sweetened beverages, desserts, sweet snacks, additions to coffee and tea, candy, and sugar-sweetened cereals. Grams of added sugar are now a requirement on the food label and should be limited to less than 25 grams per day.

Have protein and/or healthy fat each time you eat to help stabilize blood sugar. Best choices are in **green**.

FOODS THAT INCREASE BLOOD GLUCOSE MOST (15 grams carb/ serving) "Carb count" for these foods		FOODS WITH LESS EFFECT ON BLOOD GLUCOSE	
CARB FOODS	FOODS WITH $\frac{1}{2}$ CARB AND $\frac{1}{2}$ PROTEIN	FOODS WITH $\frac{1}{2}$ PROTEIN AND $\frac{1}{2}$ FAT	FATTY FOODS
Grains (high fiber) 1 tortilla (low carb) 1 slice bread, 5 crackers 1/2 cup cereal, 1/3 c pasta (bean or whole grain) 1/3 cup rice 3 cups popcorn Unlimited non-starchy veggies	1 cup edamame 1 cup tempeh 1 ounce soy nuts 1 cup unsweetened soy milk	chicken, turkey, fish, tofu, beef, pork	Butter Use coconut oil, olive oil, avocado instead of canola, soybean, safflower, or corn oil

1/2 cup Starchy <u>Veggies:</u> corn, peas,potatoes, beans	6 oz yogurt (plain)	Eggs Cheese	
1/2-1 cup fruit or 1 piece most fruits	1 cup milk	Nuts/Seeds	
Sweets			

4. Alcohol can cause your glucose to drop too low or rise too high. Heavy intake of alcohol is defined as anything over 7 drinks per week. Exceeding this greatly increases risk for high blood pressure, weight issues, stroke, liver disease, digestive diseases, many cancers, anxiety, depression, ETC. If you plan to drink, 4 oz of red wine or one light beer are better choices, perhaps an alcohol replacement. Alcohol commonly interferes with medications.

Sample meal plan: (1700 calories) All organic if possible.

Brkfst:(350 cal/20 gm carb)

2 eggs w/ spinach, tomato, mushroom & 1T avocado oil

1 small piece whole grain toast w/ 1 tsp almond butter

1 c coffee with 2 T soy milk

Lunch: (580 cal/35 gm carb)

Salad with lettuce mix, unlimited non-starchy veg (ex. carrot, cucumber, tomato, peppers, etc),

1/3 cup beans, 3 oz chicken, and vinegar & oil

7 whole grain/nut/seed crackers

1/3 c mixed nuts

Water with lemon

Snack: (70 cal/5 gm carb)

Carrots, cucumber, cauliflower, broccoli, celery

2 T hummus

Sparkling water w/ splash pomegranate juice

Dinner: (450 cal/45 gm carb)

4 oz honey-mustard salmon w/ sesame seeds

1/2 cup quinoa with 1 T goat cheese

green beans with lemon and garlic

decaf green tea

Dessert: (250 cal/40 gm carb)
1 c berries w/cinnamon
6oz plain coconut yogurt w/ chia/flax/hemp seeds

5. Maintain a healthy weight. If you are able to manage your weight, your glucose will be much easier to control. ([Free download Barriers to Weight Management](#) www.nutritiontransformation.com)

6. Exercise regularly. ([Free download Exercise guide at www.nutritiontransformation.com](#)) Exercise brings your blood sugar down and improves the way your body uses insulin. Consistent exercise is a vital part of long-term weight management. The most important factor regarding exercise is that it becomes a consistent habit. This means that you must find something that works for you. A great time to exercise is right after you eat. Commit to once or twice a week until that is a habit, then build upon your success by adding frequency, duration, or another type of exercise.

7. Consider supplementing. Chromium at 100 mcg (micrograms) per day and magnesium glycinate 400 mg (milligrams) per day have been shown in some studies to increase insulin sensitivity and bring glucose down. Consider 1,000-3,000 IU (international units) Vitamin D per day. A nice multivitamin choice is Pure Synergy Multivitamin or O.N.E. by Pure Encapsulations. Big Bold Health Omega-3 Rejuvenate is a great fish oil. Cinnamon &/or vinegar at meals can help prevent high glucose.

8. Possible causes of high glucose(hyperglycemia): food portions too big, too many processed or low fiber carbs, meals were too close together, medication change, inadequate activity, alcohol, sleep disturbances, stress, pain, or illness. **Some causes of low glucose(hypoglycemia):** skipping a meal, increase in Diabetic medications, and alcohol. Everyone is a little different. This is why blood sugar testing at home is so important.

References:

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