



# LIVING WELL WITH DIABETES

VOLUME 6, ISSUE 3

Summer 2013

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## Preventing Dehydration

Dehydration is when the body does not have enough body fluids. This can be caused by not drinking enough fluid or by losing too much fluid through excessive sweating or urination. People with diabetes are more prone to dehydration when blood glucose is high and should take extra precautions when active and/or outside in the summer heat.

Dehydration can be serious enough to result in brain or organ damage and can lead to coma and death in extreme cases. When dehydration is caused by sweating, the body may suffer from loss of sodium and necessary electrolytes that help in regulating heart rate and blood pressure.

Thirst is often the first sign of dehydration, but by this time, the body has already lost 1-2% of its fluid weight. Another sign is the color of urine. If it is dark and yellow, there is a good chance that there is not enough fluid in the body. A dry or sticky mouth, sunken eyes, or muscle cramps are also signs. Keep in mind that individuals who follow a very low carbohydrate diet are also at higher risk because of the increased fluid loss that accompanies this type of meal plan.

Typically, for activity or exercise that lasts less than an hour, water is the best choice to hydrating the body. For more strenuous activities or those that last longer

than an hour, sports drinks are a great choice because they will give the body the electrolytes and calories needed, but they do contain carbohydrates. People with diabetes should choose low-calorie versions. Caffeinated beverages, such as soda or iced tea, are not good choices because they work like diuretics, making you have to urinate more frequently.

The best way to prevent dehydration is to drink plenty of the right type of fluids all the time. Adults need a minimum of 32 ounces of non-caffeine fluid daily. When exercising, drink 16 ounces before activity and 4-6 ounces every 15-20 minutes during activity.

## Tips to Increase Physical Activity

Managing weight is a balance between diet and physical activity. Fitting activity into the daily routine can be easy and does not need to take a lot of time. Being active even for 10 minutes a day can be a great benefit to your health. Choose activities that you can enjoy and do regularly.

**Minimum of 10.** Walking your dog for 10 minutes in the morning and afternoon will add up to your weekly goal.

**Keep it interesting.** Try doing different types of activities on alternate days. Join an exercise class.

**Mix it up.** Swim, take a yoga class, garden, or lift weights to make physical activity more interesting.

**At home:** Join a walking group in the neighborhood or local mall, do stretches or exercises while watching television, mow the lawn with a push mower, and



exercise to a workout video are just a few ways to increase activity.

For more tips on how to increase your physical activity, visit [www.choosemyplate.gov](http://www.choosemyplate.gov).

# Preparing for Surgery with Diabetes



Regardless if it is emergent vs. elective or major vs. minor, people with diabetes face additional risks with any surgical procedure. Risks such as high or low blood glucose that may require hospitalization, poor wound healing, or infection are more likely to occur in people who have had diabetes for a long time or if blood glucose is often high.

The body's response to anesthesia and surgery leads to the release of hormones that cause the body to not use insulin

properly and decrease the amount of insulin that is released by the pancreas. Also, the physical stress of the procedure, as well as any emotional stress you may have worrying about it, will raise blood glucose.

If blood glucose is high and the surgery is not emergent, work on lowering blood glucose before scheduling. Making your body stronger can speed up recovery, so begin exercise if you are able. Be sure that the protein in the diet is high-quality, such as lean meats, fish, and egg

whites. This can help with faster wound healing and stronger tissue at the surgical site. If your procedure requires a clear liquid diet the day before, try to get 45 grams of carbohydrate at each meal and 15-30 grams per snack. For outpatient procedures, take your meter and treatment for low blood glucose with you to the hospital.

Changes may need to happen with your diabetes pills prior to surgery, so be sure to ask your provider for more specific instructions.

## New Diabetes Drug—Invokana™

This spring a new drug arrived on the market in the US. Invokana™ (canagliflozin) is a prescription drug that works with diet and exercise to lower A1c results by 0.7 to 1%.

It is in a class of drugs called SGLT-2 inhibitors. Ninety percent of the glucose that is reabsorbed in our kidneys comes through SGLT-2. This class of drugs works to stop this reab-

sorption and lower glucose by causing the extra glucose from the kidneys to spill over into the urine. Invokana™ is the first drug in this class to get FDA approval, but 2 others are still waiting.

Other benefits found with Invokana™ are weight loss of 4-9 pounds and decrease in systolic (the top number) blood pressure. Unfortunately, they also tend to raise bad, LDL, choles-

terol, but the overall benefit is greater than this risk in most cases.

Common side effects of Invokana™ include yeast or genital tract infections, because when the glucose isn't reabsorbed in the kidneys, it stays in the bladder, creating a great environment for yeast to grow. Invokana™ is not recommended people with kidney disease.

Invokana™ is a new drug with a low risk of causing low blood glucose.

## Grilling Meats Can Increase Cancer Risk

The risk of cancer, such as colon and stomach, is increased when consuming any type of meat or fish that has been prepared over intense heat, such as a grill. There are two chemicals, HCAs and PAHs, that have been linked to increased cancer risk. HCAs are formed when muscle protein reacts with high temperatures. PAHs are a compound that form in

smoke and are deposited on the outside of meat. Risk can be lowered by cooking meat for shorter times at high heat, or reducing the amount of smoke formed in the cooking process.

Marinating meat for 30 minutes in a mixture of vinegar, herbs, spices, and lemon juice or wine can decrease HCA formation by up to 96%. Cook meat partially in the microwave, oven, or stove

before putting it on the grill. Keep fats and juices from meat out of the fire by placing foil on a lower grate and cook the meat on a higher grate. Cut off fat before grilling and remove charred pieces of meat before serving. The further you cook meat past the desired temperature, the more HCAs can form, making well-done meats a higher risk.



## More About Vitamin E

Vitamin E is a supplement taken as an antioxidant. Some studies suggest taking an antioxidant may help prevent diabetes. Antioxidants are substances that may protect your cells against the effects of free radicals, or molecules produced when your body breaks down food, or by interacting with the environment (such as exposure to tobacco smoke). Vitamin E

also plays a role in the immune system.

Studies have shown that *some* Vitamin E is helpful, but too much is harmful. High doses may increase the chance of having a certain type of stroke or increase the chance of developing prostate cancer. Doses of 400 IU/day or more of vitamin E are listed as POSSIBLY UNSAFE by [webmd.com](http://webmd.com) for individuals with heart disease or

diabetes. The higher the dose, the greater the risk for serious side effects. Vitamin E supplements may also be harmful for people taking blood thinners and other medicines.

Research shows that taking an antioxidant supplement does not match the benefits of eating foods that contain the same antioxidant. Supplements do not provide the other nutrients that the antioxidants need to work

with to promote better health.

Good sources of vitamin E include olive oil, margarines, almonds and other nuts, sunflower seeds, tomatoes, and leafy greens. Vitamin E is dissolved in fats and can also be found in meat, poultry, eggs, and wheat germ. Most individuals will meet their recommended daily dose (15 mg) from the foods that they eat.

## Kale Salad with Pomegranate, Sunflower Seeds, and Almonds

Source: [www.allrecipes.com](http://www.allrecipes.com)

- 1/2 pound kale
- 1 1/2 cups pomegranate seeds
- 2 Tbsp. sunflower seeds
- 1/3 cup slivered almonds
- 5 Tbsp. red pepper seasoned rice vinegar
- 5 Tbsp. balsamic vinegar
- 3 Tbsp. extra virgin olive oil
- Salt to taste

Wash and shake off extra water from the kale. Remove the center ribs and stems; discard. Chop the leaves until fine but still a little leafy.

Combine the chopped kale, pomegranate seeds, sunflower seeds, and sliced almonds in a large bowl; toss to combine. Drizzle the rice vinegar, balsamic vinegar, and olive oil over the kale mixture while continuing to toss. Season with salt to serve. Makes 6 servings.



### Nutrition Information:

134 calories	9 grams carbohydrate
0 mg cholesterol	10 grams fat
1.3 grams fiber	3 grams protein
332 mg sodium (to lower, don't add salt to taste)	

## Aisle by Aisle 3: Choosing Foods Wisely

Over the past few newsletters, we have been exploring various aisles of the grocery store to determine better food choices to purchase. The following tips may decrease your risks for obesity, heart disease, stroke, and cancer.

### Choose Lean Meats (beef, pork, poultry) and Seafood

Choose lower-fat cuts of meats such as "loin" or "round". Choose ground meat with the

highest percent lean as possible, such as "93/7". Choose white meat (breast) instead of dark meat chicken and turkey (legs, thighs, wings). Limit processed meats such as deli meat, hot dogs, bacon, and sausages as they are loaded with sodium. Choose plain, fresh fish instead of breaded choices. Eat fish higher in omega 3 fatty acids such as salmon, mackerel, or trout more often. Current portion size for meat is 3-4

ounces or a deck of cards.

### Choose Whole Grains

Choose "100% whole grain" or "100% whole wheat" breads. Choose bread, cereals, crackers, snacks with the first ingredient listed as "whole". A good source of fiber will have "3 grams of fiber" per serving. Read the food label for serving size to help you determine your portion.



# Distress Related To Diabetes

Wake up, take medications, test blood glucose, eat the right amount, exercise, and throughout the day repeat some of these steps two or three more times. For people with a chronic disease, such as diabetes, this can get really old. Some patients with diabetes even report feeling like they are a prisoner to their diabetes treatment plan.

Recently, more health care providers have begun to recognize the signs of frustration, emotional burden, and fear of living with diabetes as something called diabetes distress. Research even shows that in any 18-month period, one-half to one-third of people with diabetes will experience diabetes distress. Even caregivers of those with diabetes can experience diabetes distress, particularly in parents of children who have type 1 or type 2 diabetes.

Diabetes distress symptoms are similar to depression or anxiety, but aren't quite

serious enough to diagnose major depression or generalized anxiety disorder. People suffering from this condition may become frustrated enough with the tasks required to manage the disease that they stop taking medications and become more lax with their meal plan and exercise routine. This can lead to higher blood glucose levels because people with higher levels of distress are more likely to have high blood glucose levels.

If you think you or a loved one may be suffering from diabetes distress, there are a few things to try to decrease the effect it can have on daily living. First, reach out to other people with the disease. Support from others who are going through many of the same battles can help someone feel less alone in their struggles. Most people with diabetes know someone else with the disease that could help. You can also look in your area for monthly diabetes support

groups.

Another way to battle the signs of distress is not to set unrealistic goals. Don't set a goal for blood glucose to be less than 100 mg/dl when you wake when the actual target is 90-130 mg/dl for that time of day. Other examples could be expecting to lose large amounts of weight in a short amount of time, daily exercise when you didn't do any in the past, or permanently giving up a favorite food if you think it isn't allowed on a diabetes meal plan.

When dealing with diabetes distress, like it or not, its important to accept that some things are just out of our control. Several things are bound to happen in our lives, such as stress or illness, that cause blood glucose to go up. The goal should be to stay calm, continue testing, and do your best through this temporary period.

## **FREE DIABETES SUPPORT GROUP!**

Join us on the following dates at 11:30 am in the  
Conference Center of Mon General

### **July 17th: Medicare Changes and Glucose Testing**

By Andrea McCarty, MS, RD, LD, CDE

### **August 21st: Tests and Exams for Diabetes**

Speaker to be determined

### **September 18th: Diabetes Medication Update and**

**Meet Dr. Haq, Endocrinologist**

Speaker to be determined



Mon General

Diabetes Learning Center

Andrea McCarty, MS, RD, LD, CDE, Diabetes Education Coordinator

Beth Semmens, RD, LD, CDE, Clinical Dietitian

Karen Rembold, RN, MSN, MBA, CDE,

Inpatient Diabetes Education Coordinator



\*The American Diabetes Association Recognizes this education service as meeting the National Standards for Diabetes Self-Management Education.