



Diabetes Life Lines

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Another Diabetes Complication: Non-Alcoholic Fatty Liver

As if people with diabetes and pre-diabetes don't have enough to worry about, here is another possible complication that can occur if your blood sugar is too high: Non-Alcoholic Fatty Liver Disease or NAFLD. What is NAFLD? It is a condition that occurs when the liver tissue becomes filled with fat called triglycerides. This can be serious if it continues and leads to hepatitis, cirrhosis or liver failure. We usually think of cirrhosis with alcohol abuse, but cirrhosis can also develop in people who do not drink much alcohol at all.

If you are obese, have high blood cholesterol and triglycerides, have Type 2 diabetes or you have a condition called metabolic syndrome, you are more likely to get NAFLD. Metabolic syndrome occurs when a person has at least three of the following symptoms:

- Obesity, especially around the waist
- High triglycerides (blood fats)
- Low HDL cholesterol (the healthy kind)
- Blood pressure over 120/80
- Insulin resistance (not being able to properly use the insulin your body makes)

Usually NAFLD appear when a person is over age 50 and is more than 20% above their ideal body weight. Sadly, because more children and teens are now overweight, NAFLD is happening at younger ages as well. Many people have no symptoms, but the condition may be found after routine blood tests show that the liver is not working normally or the doctor discovers the liver is enlarged during a check-up. Some people report having burning pain in the right chest. The doctor probably will confirm the diagnosis with an ultrasound test.

Changes in your diet and exercise will be needed to reverse the condition. This means eating lower fat, lower carbohydrate meals and snacks and getting more active every day so



you can lose weight. Just a 10% weight loss can improve liver function and relieve chest pain. If you have high blood sugar, getting it under control is essential. You may also need drugs to lower your triglyceride and total cholesterol levels and to raise your HDL cholesterol.

Some medicines also may increase risk for NAFLD so be sure your doctor knows all the drugs you are taking. Some of these drugs may need to be changed to help you recover.



Are You Getting Enough Whole Grains?

If you were not raised eating whole grains, it can be hard to switch to them. You may begin to like whole grains more if you make a gradual change to them.

The U.S. Dietary Guidelines recommend that at least half the breads, cereals, pasta and rice you eat be made with whole grains. If you eat 2,000 calories per day, this is equal to 3 ounces of whole grain food. Your portion does not have to be large. One ounce equals just one slice of whole wheat bread, ½ cup of cooked brown or wild rice, ½ cup of cooked whole grain cereal, ½ cup pasta made with whole grains or half a whole grain bun.

Look on the ingredient list of these foods. The first ingredient should be 100% whole wheat flour (not just wheat flour), oats or oatmeal, whole grain corn or whole cornmeal, wild or brown rice or hulled barley. Unfortunately multigrain or stone ground may mean the food is not made with much whole grain. Enriched wheat flour typically means white, refined flour.

If you already like whole grains, substitute them for the refined grain foods you are presently eating. If you don't like the texture or flavor, you may need to ease yourself into them.

Even though multigrain bread is not whole grain bread, it may be the first step toward changing your taste preferences. Look for multigrain bread that has whole wheat or some other whole grain as the second ingredient after wheat flour. Eat this bread for a month, then try another bread that has whole wheat as the first ingredient and you may find your taste buds are now use to the nuttier flavor. Some people also do not like the heavier, coarser texture of whole grain bread. Try a less dense whole grain bread first and then gradually buy heavier, more coarse breads over time. You may also find that bread made with "white" whole wheat flour tastes better to you.

If you are not fond of whole grain cereals, try mixing them with a cereal you already like. You can always mix a bran cereal with your cornflakes. Then slowly increase the whole grain cereal while decreasing the amount of refined cereal until you are totally switched.

Do the same with whole grain rice or pasta. Just make half white and half whole grain and gradually increase the whole grain over time. Even substitute wheat bran for half the grits you normally cook to get more fiber and texture.

If you make biscuits or muffins, substitute whole grains for part of the all purpose flour you normally use. Gradually add more whole



grain over time. Eventually you may be able to substitute whole wheat flour complete for refined flour in a recipe, but other grains like oatmeal can only replace part of the flour. Only by experimenting can you tell the right amount for you.

Other whole grains to try are quinoa (keen-wa), whole wheat tortillas, whole wheat couscous, buckwheat, rye flour and even popcorn. You may be surprised by the endless variety of flavors you will experience when you switch to whole grains.



How to *Be Food Safe* With Diabetes

CDC estimates that each year roughly 48 million Americans get sick from foodborne diseases (1 out of every 6 Americans). Of these, 128,000 are hospitalized, and 3,000 die. For this reason, one of the 2010 Dietary Guidelines says “Follow food safety recommendations when preparing and eating foods to reduce the risk for foodborne illness.”

Did you know that diabetes can make you **more** at risk for foodborne illness and serious complications? Diabetes can affect many organs and systems in your body and cause them to not work properly. It can even affect your immune system so that you are less able to fight off infections. If you are exposed to bacteria or other microorganisms that cause foodborne diseases, you are more likely to be sick longer, be hospitalized and suffer severe complications...even death. The symptoms of foodborne illness include diarrhea, nausea and vomiting. Fever may or may not be a symptom. You may develop unstable glucose levels if you experience vomiting or diarrhea. If you have these symptoms, you should seek medical care.

Keeping food safe is especially important for you. You must be very careful when handling, preparing and consuming foods. The good news is that foodborne illness can be prevented! Here are some steps to help you **BE FOOD SAFE** with diabetes.

Step 1. Make wise food choices. Avoid foods like raw or undercooked animal products because they are more likely to contain disease-causing “pathogens”. This includes raw or undercooked poultry, meats, seafood and fish; the juices of these raw products; and unpasteurized milk and soft cheeses made from unpasteurized milk. Raw or undercooked eggs have been linked to outbreaks of *Salmonella*. Do not consume raw or undercooked eggs.

To make wise food choices, choose cooked meats, poultry, fish and seafood. Only use pasteurized milk. Avoid soft cheeses unless they are clearly labeled “made from pasteurized milk.” If you are preparing recipes that call for eggs that will not get cooked, use pasteurized eggs or egg products.



When eating out, ask if pasteurized eggs were used if you order foods that may not receive thorough heating like a Caesar dressing.

Step 2: Clean. Wash your hands and surfaces that touch food often. Always before touching food, wash your hands for at least 20 seconds using soap and warm, running water. Wash cutting boards, utensils and dishes after use with each food item. Wash in hot soapy water or in the dishwasher. Clean counter tops with hot soapy water. A sanitizing solution can be made for use in your kitchen by mixing 1 tablespoon of chlorine bleach per gallon of warm water. Paper towels are an ideal way to clean kitchen surfaces because you use them once and throw them away. If you use cloth towels, change them often and wash them on the hot cycle of your washing machine. Rinse fruits and vegetables before eating. Firm fruits and vegetables can be rubbed or washed with a clean vegetable brush under running water. Leafy greens should be washed 1 or 2 leaves at a time under running water. Wash the tops of canned goods before you open them.

Step 3: Separate. Don't cross-contaminate. When bacteria are spread from one food to another or from a utensil to a food, it is called "cross-contamination." An example of how cross-contamination can occur in your kitchen



is cutting up vegetables to be eaten raw on a cutting board that has been used to cut up raw meats without thoroughly washing and drying the board between uses. The key to preventing cross-contamination is to keep raw meats, poultry, fish, seafood and eggs away from foods that are ready-to-eat. Separate these raw foods from ready-to-eat foods at the grocery store and in your refrigerator. Use one cutting board for raw meat products and a separate one for fresh produce. Be sure to wash a dish that has held raw meat, poultry, fish, seafood or eggs before you put cooked food back into it. Don't reuse marinades **that have been used with raw foods unless you boil them first.** It is safer to set aside some of the unused marinade for later.

Step 4: Cook foods to the proper endpoint temperatures to destroy pathogens. To reduce your risk of foodborne illness, cook steaks, roasts, fish and seafood to at least 145 °F. Do not consume raw or undercooked shellfish. Cooked shrimp, lobsters and crab should turn red and the flesh should be pearly opaque. Clams, mussels and oysters should be cooked until the shells open. Cook pork, ground beef or egg dishes until they reach 160 °F. Cook chicken to at least 165 °F. Use a food thermometer to check the internal temperature of the product at the thickest part, away from bones and in several places. Reheat liquid leftovers like soups, sauces and gravies to a rolling boil and solid leftovers to at least 165 °F. Hot dogs, luncheon meats and other deli meats should be heated to at least 165 °F. Cover, stir or rotate foods cooked in a microwave oven for even heating, and always observe the standing time on packages as it is an important part of the cooking process. If no standing time is listed, allow at least 1 minute.



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Step 5: Chill foods promptly. Don't leave potentially hazardous foods (those that are moist and low in acid like meats, poultry, seafood, fish, eggs, cooked vegetables and casseroles, cut fruits

and veggies, etc.) at temperatures between 40 °F and 140 °F for more than two hours. This range is called the temperature danger zone because it allows harmful bacteria to multiply quickly.

Cold temperatures slow the growth of harmful bacteria. Keep your refrigerator at 40 °F or colder and your freezer at 0 °F or colder. Thaw foods in the refrigerator, in cold water changing it every 30 minutes or in the microwave oven followed by immediate cooking. Divide large quantities of leftovers into shallow containers for quick cooling when refrigerated.

For more information on how you can protect yourself and your family from foodborne illness, develop a foodborne illness action plan and find additional resources for food safety information, visit http://www.fsis.usda.gov/pdf/food_safety_for_diabetics.pdf



May is National High Blood Pressure Education Month

Controlling high blood pressure helps to protect you from diabetic complications.

Your blood pressure should be under 120/80.

If your blood pressure is higher, talk to your health care provider.

You can lower your blood pressure by

- Losing weight
- Eating less sodium
- Eating at least 8 servings of fruits and vegetables per day
- Consuming 3 servings of non-fat or low fat dairy foods
- Eating whole grains
- Substituting beans and nuts for some meat, chicken and fish
- Taking blood pressure medicine (more than one may be needed.)



Recipe Corner

Strawberry Walnut Salad

Dressing

2 tablespoon sesame seeds	¼ cup white wine vinegar
1 tablespoon poppy seeds	¼ teaspoon sweet paprika
½ cup granulated sugar substitute	¼ teaspoon Worcestershire sauce
⅓ cup olive oil	

Salad

10 ounce package of mixed salad greens, washed and rinsed
1 quart fresh strawberries, cleaned, hulled and sliced
¼ cup chopped walnuts or pecans

1. Place sesame seeds, poppy seeds, sugar substitute, oil, vinegar, paprika and Worcestershire sauce in a glass jar with a lid. Shake well to mix. Chill for one hour.
2. In large salad bowl, arrange the salad greens, strawberries and nuts. About 10-15 minutes before serving, toss with dressing and chill.

6 servings

Nutrition Analysis:

Calories: 202	Carbohydrates: 13 grams	Protein: 2 grams	Fat: 17 grams
Saturated Fat: 2 grams	Cholesterol: 0 milligrams		Sodium: 21 milligrams
Dietary Fiber: 4 grams			

Diabetic Exchanges: 1 fruit and 3 fats

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Dear Friend,

Diabetes Life Lines is a bi-monthly publication sent to you by your local county Extension agent.

It is written by Food and Nutrition Specialists at the University of Georgia, College of Family and Consumer Sciences. This newsletter brings you the latest information on diabetes, nutrition, the diabetic exchange systems, recipes, and important events.

If you would like more information, please contact your local county Extension office.

Yours truly,

County Extension Agent

Connie Crawley, Principal Writer

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