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# Diabetes Life Lines



A newsletter from your County Extension Office  
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## Managing Diabetic Kidney Disease

Diabetic kidney disease called nephropathy (ne-frop-a-thee) is the main reason people go on kidney dialysis or get a kidney transplant. From 1991 to 2001, this disease doubled in the United States. Even though this is a serious problem, many people are not screened often enough by their doctors for the disease.

All adults with diabetes should have their kidney function checked yearly. (A child newly diagnosed with Type 1 may be able to wait 5 years before screening.) You also need to:

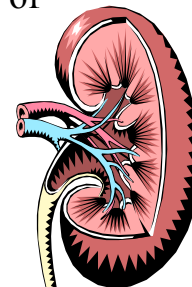
- 1) not smoke.
- 2) control your blood pressure.
- 3) get your A1C under 7%.

- 4) lower your cholesterol and triglycerides if they are high.

Kidney disease runs in families. If you have relatives who have had kidney failure, being screened yearly is even more important.

The doctor will screen you using a microalbumin (mi-kro-al-bu-men) test. It is a test done on your urine. Micro means small and albumin means protein. If your kidneys are working right, you should not have protein in your urine. If protein is there, you are probably starting to have kidney problems.

The doctor may also measure the creatinine (kre-at-tin-teen) in your blood each year. Creatinine is made from the normal breakdown of muscle tissue each day. He will use this figure to estimate the glomerular filtration rate. This rate tells the doctor how well your kidneys are removing waste from your body.



The doctor should also check your blood pressure regularly. If it is 130/80 or higher, he may suggest that you take a blood pressure drug called an ACE inhibitor. This drug and another drug called an ARB can help to lower your blood pressure and also protect your kidneys. You may even be told to check your blood pressure at home if you start to have kidney

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problems. Blood pressure control and blood glucose control are key in keeping kidney disease from getting worse.

If you start to have kidney problems, your doctor may refer you to a kidney specialist called a nephrologist (ne-frol-o-jest). You may also need to see a dietitian because as kidney function goes down, you need to eat the right amounts of protein, potassium, calcium, phosphorus and sodium to keep you healthy.

If you need dialysis, you will need to work with your medical team closely since diabetes control may change. There are two types of dialysis. One called hemodialysis (he-mo-di-al-e-sis) filters your blood through a machine. The other is peritoneal (pear-e-to-ne-al) dialysis that uses a fluid put in your abdomen each night to filter the waste out.

If you have hemodialysis, you may need a lower insulin dose since the process removes glucose, but not insulin. If you have peritoneal dialysis, you may need more insulin since the fluid that filters the waste out has glucose in it. You will need to monitor your blood glucose often and keep good records so the right amount of insulin is used.

No one wants kidney failure. Regular screening, not smoking, controlling your blood glucose and blood pressure and lowering your blood cholesterol and triglycerides

can all help to prevent it or at least slow it down.

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## **Now the Tough Part: Maintaining Weight Loss**

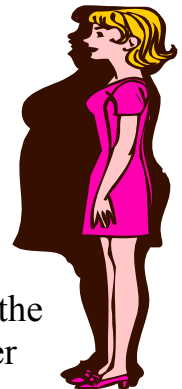
Alice was proud of herself. After months of effort, she had finally lost 30 pounds. She had even bought some “thin” clothes to reward all her hard work.

But now she was facing a new challenge – keeping the pounds off. She had lost weight before. Somehow it always came back. Alice made up her mind this time - she was not going to gain that weight again!

Alice had gotten help from Rachel, a registered dietitian to lose the weight. She revisited her to get ideas on how to maintain her new body.

Rachel asked Alice why she thought she had lost the weight. Alice knew the answer right away. She ate fewer calories and was more active. Rachel said that Alice would still need to keep her calories lower than before she lost weight. She had less body mass now so she did not need as many calories.

Rachel suggested that Alice add 100-200 calories to her present calorie intake and see if her weight stayed stable for a few weeks. If it did, she



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could add a few more calories until her weight started to go up again. Once Alice gained a pound or two, she would know that she needed to cut down to the calorie level where she kept the weight off. Weighing every day would help Alice to catch any weight gain before it got out of hand.

Alice had really cut her fat intake. She was eating fruits and vegetables at every meal and snack and small amounts of meat, poultry and fish. She rarely ate fried food. She only used light margarine and mayonnaise. She also switched to whole grain breads and cereals, brown rice and whole wheat pasta. This added fiber and made her feel full. She also drank more water and only used low fat or fat free milk and yogurt. Rachel encouraged Alice to continue making lower fat food choices. Permanent weight loss meant making permanent healthy food choices not going on some temporary “diet.”

Rachel also told Alice to keep very active. Research has shown that keeping weight off requires up to 60-90 minutes of physical activity per day. Alice was shocked and couldn't imagine exercising that much for the rest of her life.

Rachel reassured her that part of that activity could be structured exercise like taking a walk, but time doing other daily activities like

sweeping the driveway, cleaning the house, mowing the lawn and washing the car counted too. The goal was to sit less and do more. Alice could also divide that time into smaller amounts. She might walk for 10-15 minutes on her breaks at work and at lunch and then do yard work or ride her bike in the evening.

Rachel also recommended resistance training with light weights, weight machines or stretch bands two to three times a week. These exercises build muscle and muscle burns more calories than fat.

Alice realized she'd have to work to keep the weight off, but she knew it was worth it. She thanked Rachel for her good advice and went home with a plan to stay healthy the rest of her life.

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## **What Should I Expect If I Try Byetta?**

If your diabetes pills do not seem to be working as well as they once did, your medical team may suggest taking exenatide (brand name Byetta). Over time your pancreas just wears out so diabetes pills may not be enough. Exenatide increases insulin secretion after meals, reduces the amount of stored glucose your liver releases between meals and slows emptying of your stomach.

What should you expect if you go on this drug? First, it is NOT insulin, but it is an injection. However it comes in a pen so you do not have to worry about drawing up the correct dose in a syringe. There are two types of pens. One that delivers 5 micrograms per dose and one that delivers 10 micrograms. You can inject into your thigh, abdomen or upper arm. The injections are done within one hour before breakfast and dinner. If you do not eat breakfast, you can take it before your first meal or snack. Just make sure the second dose is given at least 6 hours later.



At first, you will take 5 micrograms twice a day. Then after a month you may increase to 10 micrograms twice a day. The needles are very fine so the injection is basically painless. Since you are using a pen, it will really not seem like an injection at all.

People who start taking exenatide on average see:

- about a 1% drop in A1C
- weight loss of up to 10 pounds in one year
- a drop in blood pressure of about 3 points
- a rise in HDL-cholesterol (the healthy kind) of almost 5 milligrams per deciliter

- a drop in triglycerides (blood fats) by nearly 39 milligrams per deciliter.

These changes may help reduce your risk for heart disease and stroke. The most common side effect is nausea. That is why you start on the lower dose and increase slowly. Taking medicines that control nausea may help. Most people find the nausea gets better after the first few weeks. They are so happy they are losing weight and are less hungry that they don't want to stop the drug anyway.

If you are on a diabetes pill that can cause low blood sugar or hypoglycemia, you may need to take less of it when you start exenatide. Exenatide is not made to be taken with insulin. You will not be able to take it if you have kidney problems or if you have serious stomach problems like gastroparesis.

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## Recipe Corner

### Down South Okra and Tomatoes

#### You'll Need -

2 packets artificial sweetener  
1 teaspoon cornstarch  
1/4 teaspoon black pepper  
2 cups slice okra, fresh **or**  
1- 9 ounce package frozen okra  
2 teaspoons olive oil  
1 medium onion, chopped  
1 medium green pepper, chopped  
16-ounce can unsalted tomatoes, drained  
2 cups cooked instant brown rice (optional)

#### Take Out –

Measuring cups and spoons  
Knife  
Cutting board  
Medium saucepan  
Can opener  
Non-stick skillet  
Wooden spoon

1. Combine the sweetener, cornstarch and black pepper. Set aside.
2. In the saucepan, cook the okra in water for 10 minutes or until tender. Drain.
3. In a skillet, heat oil over medium heat and sauté onion and green pepper until tender. Add sweetener mixture and tomatoes. Cook for 5 minutes. Break tomatoes up if necessary.
4. Add okra and simmer until heated. Stir very gently. Serve each serving over ½ cup of rice if desired.

#### **6 servings**

#### With Rice:

Calories: 136    Carbohydrate: 26 grams    Fat: 2 grams    Protein: 3 grams  
Sodium: 44 milligrams    Fiber: 4 grams    Cholesterol: 0 milligrams

Exchanges: 1 starch, 2 vegetables)

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The University of Georgia

# Cooperative Extension

College of Agricultural and Environmental Sciences / Athens, Georgia 30602-4356

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 system, 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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Scott Angle, Dean and Director

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