

# Diabetes

## Life Lines



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In every issue:

- < **Diabetes - the Medical Perspective**
- < **Diabetes and Food**
- < **Exercise as a Part of Living**
- < **Recipes to Try**
- < **Medication Update**
- < **New resources**
- Events**

### **Diabetes - the Medical Perspective**

Diabetes is often described as type 1, type 2, or gestational diabetes. This refers to those whose body doesn't secrete its own insulin (type 1), is not able to use the insulin well enough (type 2), or whose blood glucose rises to unacceptable levels during pregnancy.

Scientists now realize that even within these types of diabetes there are differences. These differences may be important in the treatment of the condition.

For instance, recent discoveries support the concept that there are different types of type 1 diabetes. That means that the body doesn't secrete insulin but for different reasons.

One of those reasons has to do with a defect in the signaling that should tell the body to secrete insulin. A genetic defect called "Kir6.2" has been identified as leading to a poor signaling and no insulin secretion. People with this defect usually have been diagnosed with type 1 diabetes during infancy.

The importance of knowing if this defect is present or not really relates to treatment. When diabetes is diagnosed early in life, insulin treatment is begun. However, researchers have successfully switched several patients with type 1 diabetes and this genetic defect from insulin injections to oral medications.

Doctors can test for this defect through the person's blood or even saliva. All they need is some DNA. Researchers suggest anyone who was diagnosed with type 1 diabetes before 6 months of age be tested for this defect, even if they are now adults.

## Diabetes and Food



Yogurt is a popular breakfast and snack food and is available in many varieties. Most are at least a good source of calcium (100-190 mg), and several are excellent sources (>200mg).

Yogurt is made with bacteria, usually *Lactobacillus bulgaricus* and *Streptococcus thermophilus*. Sometimes manufacturers add cultures, such as *Lactobacillus acidophilus*, *L. casei*, *L. reuteri* and *Bifidobacterium bifidum*. Look for a "Live and Active Cultures" seal on the label if you want the benefit of active cultures. Benefits of active cultures may include prevention or treatment of diarrhea, irritable bowel disease, and colon cancer. These effects have not been supported by research, but show some promise. Additional research is needed to examine each of the different kinds of cultures.

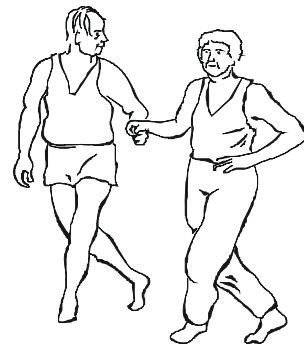
The nutrients for many yogurts are listed, but read the label of your favorite brands. Calories and carbohydrate content can vary quite a bit. Calories range from 75 to 300 or more, depending on the container size and ingredients.

## Exercise as a Part of Living

Researchers have reported that exercise can help to reduce the development of type 2 diabetes in adults with large waistlines. Finnish scientists looked at overweight adults who had large waistlines, and whether or not they had an active lifestyle, and found that those who were physically active had a lower risk of developing type 2 diabetes.

Researchers recommended that adding 30 minutes of exercise to daily routines 5 times a week could lower the risk of developing type 2 diabetes. They suggested that waistlines be less than 31.5 inches for women, less than 37 inches for white and black men, and less than 35 inches for South Asian men.

As always, talk to your doctor before beginning a new exercise program, especially if you are older, have heart disease or high blood pressure, or are taking insulin.



## Recipes to Try

### Thai Broccoli Beef Stir Fry

- 1 pound beef round steak, cut in strips
- 1 tablespoon peanut oil
- 1 cup sliced green onions
- 1 package frozen broccoli (14 ounces)
- 1 cup chopped green pepper

### 8 1-cup servings

- 1/2 cup Thai peanut sauce
- 1/2 cup fat free beef broth
- 2 teaspoons cornstarch
- 1/2 cup chopped cilantro
- 1/4 cup chopped dry roasted peanuts

1. Stir fry beef in oil until browned.
2. Add vegetables and cover, cooking until crisp-tender, about 5 minutes.
3. Thicken broth with cornstarch; add peanut sauce. Stir sauce into beef mixture. Cover and heat about 5 minutes.
4. Stir in cilantro. Spoon stir fry to serving dish and garnish with peanuts.

#### *Per serving:*

Calories	213	Fat	10 grams
Protein	21 grams	Calories from fat	43%
Carbohydrate	9 grams	Cholesterol	48 grams
Fiber	3 gram	Sodium	428 mg

### Fluffy Pumpkin Pie

- 1/2 package Jiffy<sup>®</sup> pie crust mix
- 1/2 cup Splenda<sup>®</sup>
- 1 envelope unflavored gelatin
- 1 teaspoon cornstarch
- 1/2 cup skim milk
- 1 egg

### 1 9-inch pie, 8 servings

- 1 can pumpkin, 15 ounces
- 1/2 teaspoon cinnamon
- 1/4 teaspoon nutmeg
- 1/4 teaspoon ginger
- 1/8 teaspoon cloves
- 1 cup Cool Whip Free<sup>®</sup>

1. Prepare pie crust mix according to directions. Cool.
2. Whisk Splenda<sup>®</sup>, gelatin, cornstarch, and milk in a saucepan over medium heat until boils and thickens. Whisk half of mixture into egg; then back into remaining milk mixture, heating until thickens.
3. Remove milk mixture from heat and fold in pumpkin and spices. Cool.
4. Fold topping into pumpkin mixture and spread into pie crust. Chill until set.

#### *Per serving (1 slice):*

Calories	237	Fat	11 grams
Protein	4 gram	Calories from fat	42%
Carbohydrate	30 grams	Cholesterol	35 grams
Fiber	3 grams	Sodium	269 mg

## Medication Update



People who have diabetes also often have hypertension (high blood pressure). Similarly, people who have hypertension are more likely to later develop diabetes. Some of this occurs because of weight gain. Gaining weight often causes both a rise in blood pressure and an insensitivity to insulin leading to diabetes.

However, the medication used to treat hypertension may also promote the development of diabetes. There are several types of medications used to treat hypertension. These types are usually classified as diuretics, beta blockers, ACE inhibitors, calcium channel blockers, and angiotensin II receptor blockers. Each of these types of drug work differently to help lower blood pressure. Some of those seem to be associated with diabetes later in life while others seem to help prevent diabetes.

If you are taking medication for hypertension and do not have diabetes but have a family history of diabetes, talk to your doctor or pharmacist about the medication you are taking.

## News & Resources

If you have diabetes, you may also have pain in your feet or fingers. A free information kit is available to assess that pain and provide some guidance for talking to your doctor about the pain. The Pain Assessment Checklist and Relief Guide for Diabetic Nerve Pain are available through the website [www.LessNervePain.com](http://www.LessNervePain.com) or by calling 1-866-268-0050. The website and materials are available through the Pfizer Pharmaceutical Company.

If you take insulin and travel, or even if you are not always home when you should be taking your insulin, you may need a transport case that will keep your insulin cool. Many pharmacies and medical supply stores have these products if you want to shop locally. Medicool also has many products available. Call 1-800-433-2469 for a free catalogue or visit their website at <http://www.medicool.com>.

Remember to visit Your Guide to Diet and Diabetes  
[www.urbanext.uiuc.edu/diabetes2/](http://www.urbanext.uiuc.edu/diabetes2/)