

Diabetes

Life Lines



December, 2011- January, 2012

- **Diabetes - the Medical Perspective**
- **Diabetes and Food**
- **Medication Update**
- **Recipes to Try**
- **Menu Suggestions**

Diabetes - the Medical Perspective

Ketosis is the condition of having too many ketones in the blood. Ketones are waste products made when your body is forced to burn body fat, instead of glucose, for energy. Your body gets rid of ketones by emptying them into your urine.

Your body will use body fat instead of glucose when any of the following situations occur:

- You have a high blood glucose (hyperglycemia) caused by too much food and/or too little insulin. Without the right amount of insulin, your body burns fat for energy.
- You have a low blood glucose (hypoglycemia) caused by too much insulin and/or too little food. When your body does not have enough glucose to be used for energy, it uses fat instead.

- Using a lot of energy as in exercise, stress, or illness.

How do you know if you have ketones in your urine? Signs of ketoacidosis or ketones in your urine, include...

- * dry mouth/great thirst
- * fruity breath
- * loss of appetite
- * nausea/vomiting
- * dry, flushed skin/fever
- * fatigue/drowsiness
- * frequent urination
- * labored breathing.

If you have these symptoms, or have a blood glucose level over 240 mg/dL, you should test your urine using a ketone test kit. If you have large amounts of ketones in your urine, you should call your diabetes team or health care provider immediately.

If you have a "trace" or "small" amount of ketones in your urine you should drink a glass of water every hour and test your blood glucose every three hours. If blood glucose and ketone levels are not going down after 2 tests, call your diabetes team.

Diabetes and Food

Nutrition bars are becoming more popular as a quick snack or meal replacement. Are they "okay" for those with diabetes? Although almost any food can fit into the meal plan with careful planning, nutrition bars are a special challenge.

There are many different kinds of nutrition bars - some are energy bars, some protein bars, some meal replacements, there are even high carb and low carb bars. Because nutrition bars have fairly high levels of vitamin and minerals added, they are considered a supplement, not a food.

What this means to the general public is that they are not regulated the same way as food. A few years ago an independent laboratory found that many of the nutrition bars on the market did not contain what their labels claimed.

This makes it very difficult for those with diabetes to use nutrition bars in their meal plans. Low carb bars may not be a good choice since they may really be high carb bars. Checking blood glucose levels two hours after eating may be the best plan.

Will an energy bar boost your energy? Probably not. An energy

bar will have plenty of calories, which means they have energy.

But if you feel tired, it is most likely because you haven't been sleeping well – not that you need more calories.

When choosing an energy bar, look at total calories, grams of carbohydrate, and saturated and trans fat. Lower calorie bars have 150 calories or less. Mid-range calories will be above 150 to around 220 calories per bar. More calories than this is a higher calorie bar. The higher calorie bars would be more of a meal replacement than a snack.

When looking at grams of carbohydrate, remember that 15 grams of carbohydrate are a "carb unit" if you are counting carbohydrates. That's the same amount of carbohydrates in 1 slice of bread, 15 pretzels, one-third cup rice, or one-half of a banana. Look for bars with 3 grams or less of saturated fat, and no trans fat.

Remember that nutrition bars are part of your meal plan, and need to be counted. Just because they have added vitamins and minerals does not mean they are a "free" food.

Recipes to Try

Apple and Pineapple Chill

- 1 can (20-ounce) crushed pineapple
- 1 small apple, grated
- 1 package unflavored gelatin

6 servings

- ½ cup cold water
- Non-fat whipped topping

1. Combine crushed pineapple and unflavored gelatin in a saucepan. Allow gelatin to soften 5 minutes.
2. Bring to a boil, stirring to dissolve gelatin. Remove from heat. Stir in cold water.
3. Fold in grated apple. Chill until firm.
4. Top with 2 tablespoons non-fat whipped topping to serve.

Nutrition facts per serving

Calories	74	Fat	0 grams
Protein	1 gram	Calories from fat	0%
Carbohydrate	18 grams	Cholesterol	0 mg
Fiber	1 gram	Sodium	3 mg

Preparation time 10 minutes; chill time 3 hours

Fruited Slaw

- 1 can (20-ounce) pineapple tidbits
- 1 tablespoon lemon juice
- 1 medium banana, sliced
- 3 cups shredded cabbage
- 1 can (15-ounce) mandarin oranges, drained

8 servings, 1 cup each

- ½ cup chopped walnuts
- ½ cup raisins
- ½ teaspoon salt
- 6 ounces low-fat tropical yogurt

1. Drain pineapple, reserving 2 tablespoons juice.
2. Stir lemon juice into reserved pineapple juice. Add banana slices.
3. In large salad bowl, combine cabbage, oranges, walnuts, raisins, salt, and juice mixture.
4. Add yogurt. Toss to coat. Chill until serving.

Nutrition facts per serving

Calories	156	Fat	5 grams
Protein	4 grams	Calories from fat	45%
Carbohydrate	28 grams	Cholesterol	1 mg
Fiber	3 grams	Sodium	26 mg

Preparation time 15 minutes.



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BREAKFAST		Amount/Portion
French toast		1 slice
Low calorie maple syrup		1 tablespoon
Margarine, whipped		1 teaspoon
Banana		1 medium
Skim milk		8 ounces
403 Calories, 66 Carbohydrates, 4 Carbohydrate Choices		
SNACK		
Wheat crackers		8
Low fat Swiss cheese		1 slice
214 Calories, 22 Carbohydrates, 1.5 Carbohydrate Choice		
LUNCH		
Ham sandwich on whole wheat bread with lettuce		2 slices bread, 2 ounces ham
Fruited slaw [†]		1 cup
Baked potato chips		15, or 1 ounce
Skim milk		8 ounces
577 Calories, 87 Carbohydrates, 6 Carbohydrate Choices		
DINNER		
Fragrant fish fillets [†]		1 serving
Rice		.5 cup
Broccoli, steamed		1 cup
Italian bread		2 slices
Whipped margarine		2 teaspoons
Oatmeal raisin cookies [†]		2
609 Calories, 95 Carbohydrates, 6 Carbohydrate Choices		
Total: 1803 Calories, 270 Carbohydrates, 18 Carbohydrate Choices		

[†] recipes from *Diabetes Lifelines* or *Recipes for Diabetes* at <http://urbanext.illinois.edu/diabetesrecipes/intro.cfm>



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