

# DIABETES 101

## DIABETIC & EXERCISE INFORMATION

### Best Snacks 100 Calories or Less

#### Sweet Treats

- 5 Nabisco Nilla Waffers
- 9 Tootsie Roll Midgees
- 1 Nestle Butterfinger Stixx
- 1 Skinny Cow Fat Free Fudge Bar

#### Savory Bites

- 29 Pistachios
- 12 Quaker Cheese Rice Snacks
- 40 Rold Gold Pretzel Sticks

#### Dairy Delights

- 1 Yoplait Light Smoothie
- ½ cp low-fat cottage cheese & 5 strawberries

#### Hearty Helpings

- Campbell's Vegetable Medley
- 1 Hard-boiled egg & Melba toast
- ½ Mini bagel & 1oz Smoked Salmon

#### Fruits & Veggies

- 2 cups raspberries
- 28 Grapes
- 1 cup mango chunks
- 1 cup blueberries

### Hypoglycemia Treatment

Check blood sugar level

Take one of the following:

- Take 2-3 glucose tablets
- Take 1 tube of glucose gel
- Chew 4-6 pieces of hard candy
- Drink ½ cup fruit juice
- Drink 1 cup skim milk
- Drink ½ cup soft drink (not diet)
- Eat 1 tablespoon honey
- Recheck blood sugar level\*

### PICKING THE RIGHT BLOOD GLUCOSE METER

Often confusing, blood glucose monitors are crucial to your everyday blood sugar level maintenance. Your blood sugar can go up and down depending on what you eat or how much you exercise. It is essential that you check your blood sugar several times a day to ensure your levels are within a certain range. However, testing blood sugar levels several times a day may cause pain, but newer glucose meter options allow you to use a tiny needle so small that you might not feel the prick take place. This makes testing blood sugar levels more comfortable and easier to maintain a regimen your doctor wants. The glucose monitor needs to be reliable and one that you can trust and use to track your blood sugar levels. Choose a blood glucose meter that is a brand name and one that your doctor has recommended.

### EXERCISE AND BLOOD SUGAR LEVELS

Blood sugar levels should be tested prior to, during, and after all exercise routines. A log should be kept to better understand ones response to the increase in physical activity. If fasting glucose levels are >250mg/dL along with ketosis (sweet smelling breath), physical activity should be avoided.

Hypoglycemia is a big concern with exercise due to the fact exercise lowers blood sugar levels, and these effects can occur several hours after the exercise routine has been completed. Additional carbohydrates may be taken prior to or during the exercise bout to counter act the effects of decreased blood sugar levels with exercise.

### Normal Blood Glucose Levels

- Fasting Glucose: 70-99mg/dL
- 2 Hours Post Meal: 70-145mg/dL
- Random (casual): 70-125mg/dL

### SIGNS & SYMPTOMS

#### Hyperglycemia: Levels 100-125mg/dL

- Increased Thirst
- Increased Urination
- Fatigue
- Blurred Vision
- Slow-healing Infection

#### Hypoglycemia: Glucose <40mg/dL

- Sweating
- Hunger
- Trembling
- Anxiety
- Confusion
- Blurred Vision

#### Helpful web sites:

- Food and exercise calorie counts  
<http://www.webmd.com/diet/food-fitness-planner>
- Diabetic ID bracelets  
<http://www.medids.com/DiabeticBracelets.html>
- <http://www.adiabeticsonestopdreamshop.com/>
- <http://www.jewelbasket.com/diabetic-bracelets.html>

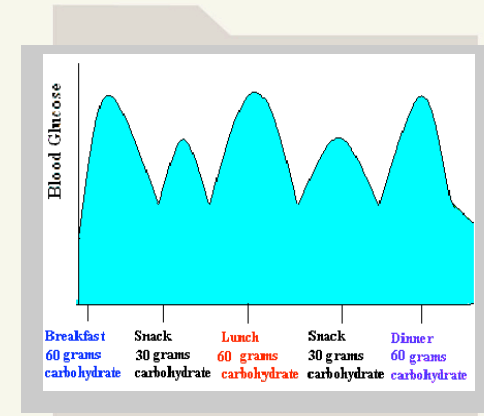
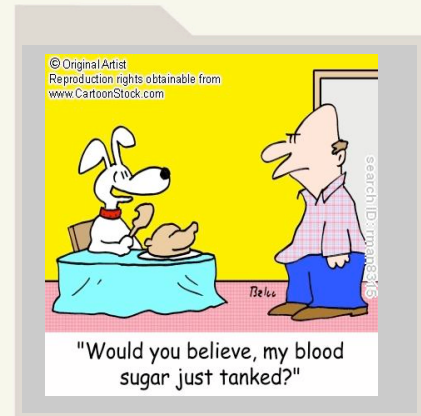
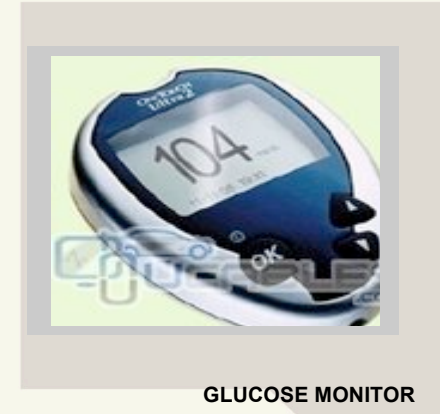
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[http://www.angelo.edu/dept/physical\\_therapy/](http://www.angelo.edu/dept/physical_therapy/)

### BLOOD GLUCOSE

Blood glucose levels normally increase slightly after meals; this increase causes the pancreas to release insulin so your blood glucose levels do not get too high. High blood glucose levels over time can damage your eyes, kidneys, nerves, and blood vessels. An article written by Sigal and colleagues (2004) reported physical activity/exercise has a positive effect on both insulin-independent muscle glucose uptake and insulin sensitivity. Sigal et al (2004) recommend individuals perform 8-10 reps of a range of resistance exercise based on trials published in 2002. For aerobic exercise a routine of 150min/week of moderate intensity is recommended. The effect of insulin sensitivity of a single bout of aerobic exercise may last 24-72 hours depending on intensity. A frequency of 1 exercise bout per 3 days is the recommended frequency for Type II diabetics.



### References:

Sigal RJ, Kenny GP, Wasserman DH, Catandea-Sceppa C. Physical activity/exercise and type II diabetes. *Diabetes Care*. 2004;27(10):2518-2539.

<http://diabetes.webmd.com/blood-glucose?page=3>

<http://www.webmd.com/fitness-exercise/guide/best-100-calorie-snacks>

<http://diabetes.webmd.com/diabetes-hypoglycemia>