



# Keeping Me Healthy

## Guide to living with Diabetes

\* Please Bring Book to All Health care Appointments.

The information in this booklet  
is not a substitute for medical care.  
Individual experiences may vary.



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# *Keeping Me Healthy*

The purpose of this booklet is to introduce you to things you can do to help yourself stay healthy and prevent problems from diabetes. By following the instructions of your doctor, you may reduce symptoms of diabetes and better control your blood sugar (glucose).

The following information is not intended to be a substitute for medical care or formal diabetes classes.

**Attending a diabetes class is the best way to learn how to control your diabetes. Your doctor is your resource for information about your individual care.**

*This booklet was developed to support St. John Health and St. John Health Partners guidelines for diabetes. The information follows the American Diabetes Association recommendations.*

## What is Diabetes?

Diabetes occurs when there is more sugar in the blood than normal. Usually, the blood sugar is kept in a steady range by insulin. Insulin is a hormone that allows just the right amount of sugar to leave the blood and move into cells. Once the sugar enters the cells, it provides vital energy. If there is too little insulin or it is not working well, the sugar is not able to leave the bloodstream and enter the cells. When this happens blood sugar levels become high.

There are two main types of diabetes. The diabetes that occurs most often in children or young adults is called **Type 1** diabetes. In Type 1 diabetes, the body makes no insulin. Insulin needs to be taken every day. The diabetes that occurs most often in adults is called Type 2 diabetes. In **Type 2** diabetes, the body still makes insulin but the cells do not use it properly. As time passes the body makes less and less insulin.

## What are the symptoms of Diabetes?

**Symptoms of diabetes, caused by high blood sugar, may include:**

- ✓ Frequent urination
  - ✓ Increased thirst
  - ✓ Unexplained weight loss
  - ✓ Tiredness
  - ✓ Blurred vision
  - ✓ Frequent infections
  - ✓ Slow healing of injuries
- OR... no symptoms at all

## How is diabetes treated?

**The five things you can do to manage your Diabetes are:**

1. Eat healthy foods in limited portions.
2. Get physical activity.
3. Take your diabetes medicine.
4. Test your blood sugar.
5. Have regular check-ups.

Taking care of your diabetes helps you to feel better today and may prevent problems later.

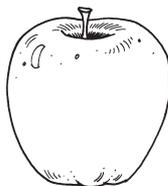
## Meal Plan

All foods can raise your blood sugar if you eat too much at one time. However, carbohydrate foods (those with starch or sugars) raise it the most. For heart health, portions of red meat and fatty foods should also be limited.

### Tips for Blood Sugar Control and Better Health

1. Eat around the same time and the same amount every day. Eat 3 meals. Do not skip meals. Eating too much food at one time will raise your blood sugar too high!
2. Limit juice to only 4 – 8 ounces per day.
3. Eat very few desserts, even if sugar-free. Sugar free products can still raise your blood sugar.
4. Cut down on high fat meats and avoid sauces, gravies, fried foods, or anything greasy.
5. Try baking, broiling, boiling, roasting, or grilling your food instead of frying.
6. Eat more vegetables.
7. Do not use alcohol without instruction from your doctor.
8. The foods listed below can greatly **increase your blood sugar**. Because of the limited nutritional value, it is best to use in moderation. If used, they need to be included in your meal plan as part of the carbohydrate allowance. The portion of these foods should be very small.

- Regular sugar, including brown sugar
- Sugar coated cereal
- Honey, molasses, or syrups
- Sweetened fruit drinks (HI-C, Sports drinks, Gatorade)
- Sweet rolls, coffee cakes, pies and pastries, frosted cakes, “diet” cake, cookies, candy
- Regular jam, jelly or preserves
- Regular pop, Koolaid



9. The foods listed below are “Free” when eaten in small amounts because they have very small amounts of starch, sugar, and calories.

- Diet pop, sugar-free Koolaid, black coffee and tea
- Sugar-free gum and gelatin
- Clear broth and bouillon
- Herbs/spices, catsup/mustard, lemon juice vinegar
- Artificially sweetened rhubarb and cranberries
- Vegetables (except those in the carbohydrate table listed below)
- Artificially sweetened jelly/jam
- Artificial sweeteners



10. There are three major components of food: carbohydrates, protein and fat. Carbohydrates are needed for energy but too much will raise your blood sugar. The foods listed in the table below are **carbohydrates**. Most people with diabetes should limit their portions of carbohydrates to 3 – 4 choices per meal, and 1 – 2 choices per snack. Your dietitian may suggest slightly more or less depending on your blood sugar level.

Milk/Yogurt	Starches	Fruit
1 cup (oz.) skim milk	1 slice of bread or small roll	1 small to medium size fresh fruit
1 cup plain yogurt	1/2 english muffin, small bagel, or hamburger bun	1 cup melon or berries
2/3 to 1 cup artificially sweetened yogurt	1/2 cup pasta, potatoes, peas, corn, dried beans, or lentils; 1/3 cup cooked pasta or rice	1/2 cup unsweetened canned fruit
1/2 cup sugar-free ice cream	3/4 cup most plain cereal	17 small grapes
1/2 cup sugar-free frozen yogurt	1 (3 inch) cookie or 5 – 6 vanilla wafers	1/3 to 1/2 cup fruit juice

For a balanced diet you need some protein, and a small amount of fat, but not too much of either. Your dietitian will recommend the amount which is best for you. Also be sure to include non-starchy vegetables.

*(Please note that these tips are very general to help you to get started with your diet. They are not meant to replace an appointment with a dietitian or attending a diabetes education class. Please call one of the St. John Health Diabetes Discovery Programs for class information).*

## Physical Activity

### Physical activity is good for your diabetes because it:

1. Helps insulin work better.
2. Helps you lose weight.
3. Strengthens your heart and lungs.
4. Gives you more energy.

### The following are important tips for physical activity:

#### DO:

1. Talk with your doctor about what activities you should do, how often, how long and hard you should exercise.
2. Check your blood sugar before and after you exercise, when you first start (the effects may last up to 16 hours after you exercise).
3. Carry some sugar (hard candy or glucose tablets) in case of a low blood sugar.
4. Exercise with a friend.
5. Drink lots of water.
6. Wear shoes and clothing for the type of weather and activity.
7. Exercise 1/2 hour to 1 hour after a meal or a snack.
8. If you experience joint or foot problems (ex. neuropathy) consider low-impact or in-water physical activity options.



#### DON'T:

1. Exercise when your blood sugar is too low.
2. Exercise if your blood sugar is higher than 300.

## Weight Control

Controlling your weight can make a difference, especially for those with Type 2 diabetes. Weight loss alone may bring your blood sugar back to normal. Consult your health care professional to begin a weight management and/or activity program if you are overweight.

## Medication For Diabetes

Most people who take diabetes pills have Type 2 diabetes. Diabetes pills are not insulin. The pills work with your body’s insulin to control your blood sugar. Remember, diabetes pills do not lower blood sugar all by themselves. You still should follow a meal plan and get regular physical activity. Most people are able to control diabetes by taking pills, losing weight and/or following a meal plan.

Some people must take insulin injections (shots), either alone or with pills, to improve blood sugar levels. Insulin cannot be taken as a pill. If you are starting insulin shots, your health care professional will provide you with instructions on how to give yourself insulin injections. Your doctor will tell you what kind of insulin to use, how much, and when to give yourself a shot.

### Types of Diabetes Medications:

Classification	Medication	Route	The way it works
<b>Sulfonylureas</b>	Glimepiride (Amaryl) Glipizide (Glucotrol) Glipizide ER (Glucotrol XL) Glyburide	Oral	Increases insulin production
<b>Biguanides</b>	Glucophage (aka Metformin) Glucophage XR	Oral	Lowers glucose release from the liver
<b>Alpha-Glucosidase Inhibitors</b>	Glyset and Precose	Oral	Slows digestion, slows absorption of mealtime glucose
<b>Thiazolidinediones</b>	Actos and Avandia	Oral	Increases the body’s sensitivity to insulin
<b>Meglitinides</b>	Prandin and Starlix	Oral	Increases insulin production
<b>DPP-4 Inhibitors</b>	Januvia	Oral	Lowers glucose by blocking an enzyme
<b>Incretin Mimetics</b>	Byetta	Injectable	Slows digestion and absorption of mealtime glucose and lowers glucose release by the liver
<b>Anti-hyperglycemic</b>	Symlin	Injectable	Controls blood glucose rise after meals

### Insulins

<b>Insulin- injectable</b>	Humalog, Novolog, Apidra, Regular, NPH, Levemir, Lantus and various mixed insulins	Injectable insulin provides the body with the insulin needed to lower blood sugar
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## Monitoring Your Diabetes

It is important that you see a doctor regularly about your diabetes. Diabetes is a very serious disease, and you will need your health care provider's expertise to manage it. If you do not have a health care provider, call the St. John Health Connect at 888-440-7325 to locate one.

## Blood Sugar (Glucose) Testing

It is important for you to know how well you are controlling your blood sugar. One of the most important things you can do is to check your blood sugar at home. You will need to get a blood sugar meter to test your blood. To test, you will need to poke your finger for a drop of blood. The information you get is important. Studies have shown that keeping the blood sugar at near normal levels really does prevent or delay the onset of kidney disease, eye damage, nerve damage, along with heart and blood vessel damage caused by diabetes.

If you are not checking your blood sugar at home, ask your health care professional to arrange for you to get the necessary equipment and teach you how to use it.

### Tips for checking your blood sugar

1. Decide with your health care provider how often you will check your blood sugar.
2. Alternate times you take your blood sugar (before meals, after meals and at bedtime).
3. Always write down your blood sugars and bring them to your appointments.
4. You should also note when your blood sugar was tested (before a meal, etc.).

### Take Your Blood Sugar More Often if:

1. You are changing your meal plan, medication or physical activity. You can learn how your body responds to changes.
2. You are sick (fever, upset stomach). High blood sugar can be a sign of serious illness. Check it every 4 hours and call your doctor if your blood sugar goes up and stays above 250.
3. You are starting an exercise program (with the okay from your doctor).
4. You don't feel well and have high or low blood sugar symptoms.

Dispose of the used lancet in a plastic jug (such as an empty bleach or detergent jug) that is thick enough to prevent others from getting "stuck" with the sharp point. Tape lid securely when near full and put into trash. Check your garbage disposal service for disposal instructions in your city or town.

## Ketone Testing

Urine can be tested to determine if ketones are present. Ketones may indicate a severe lack of insulin. It is recommended that people with type 1 diabetes test for ketones when they are sick or have a blood sugar greater than 240. Talk to your doctor to find out if you should test. Urine ketone strips are available at drug stores.

## A1c

This is another blood test your doctor will order. The A1c test reveals how much sugar is attached to the hemoglobin in your red blood cells. Because red blood cells live approximately 120 days (or 3 months), the A1c test will show your average blood sugar during that time. The longer the sugar levels remains high, the more sugar attaches to the hemoglobin. High blood sugars over a long period of time may cause damage to your blood vessels, which increases your risk of developing diabetes complications.

According to the American Diabetes Association's 2007 Clinical Practice Recommendations, the goal is to lower the A1c level to 7% or less. Some health professionals recommend an even lower goal.

## How to Tell if You Have Low Blood Sugar

**You don't want your blood sugar level to be too high or too low. Warning**

**Signs of Low Blood Sugar may include sudden onset of:**

- ✓ Sweating
- ✓ Shaky feeling, nervous
- ✓ Weakness
- ✓ Confusion
- ✓ Inability to concentrate
- ✓ Hunger

Low blood sugar levels (70mg/dl or less) can happen quickly so always carry food with 15 grams of carbohydrate, such as 4 oz. of juice, or special tablets or gel made of glucose (a form of sugar) with you at all times. You should feel better 10-15 minutes after you treat yourself. Test your blood glucose, and if it is still less than 70 or you don't feel better, take 15 grams of carbohydrate (example: 4 oz. juice or 3 – 4 glucose tablets). Recheck your blood sugar in 15 minutes, and again in one hour to make sure that your blood sugar has gone up between 70 – 115 and stays there.



## **When to Call Your Doctor**

1. If your blood sugar goes up (250 mg/dl) and stays up for more than one day.
2. You have symptoms of dry mouth, increased thirst or urination especially at night, for more than one day.
3. Your blood sugar is less than 70 mg/dl and does not get better when you eat food.
4. You have symptoms of shakiness, nervousness, sweating, fast heart rate, light-headedness or confusion that does not improve when you eat food.
5. Your foot has a blister, redness, swelling, bleeding, or discoloration. Have your foot checked even if it doesn't hurt. Also call your doctor when you have any injury to your foot such as a burn, splinter or stubbed toe.
6. You have the flu and cannot keep anything down for more than 6 hours or have a fever of 101 degrees or greater.

**IF YOU ARE NOT SURE WHETHER YOU SHOULD CALL,  
ALWAYS CALL. YOU CAN PREVENT SERIOUS PROBLEMS!**

## **Sick Day Management**

### **The Rules for Sick Day Management are:**

1. Test your blood sugar about every 4 hours and record
2. Keep taking your insulin or pills.
3. Try to eat your usual amount of carbohydrate.
4. Drink four to eight ounces of fluids every one to two hours to avoid dehydration.
5. If you are unable to eat regular meals, try some of the sick day foods listed below.
6. If you are alone during an illness, contact a neighbor, friend or relative who will check on you several times a day.

## Sick Day Foods and Drinks (Each contains 15 grams of carbohydrate).

1 cup	Soup, Milk or Gatorade	1/2 cup	Mashed Potatoes or Cooked Cereal
1/2 cup	Fruit Juice, Regular Soft Drink (not Diet) or Gelatin (not sugar free)	1/2 cup	Ice Cream or Custard
1 slice	Toast or Bread	6 each	Saltines or Vanilla Wafers
3 each	Graham Crackers	1 each	Popsicle
		1/4 cup	Sherbet

## Prevention of Problems

Help Yourself...prevent the problems of diabetes. Over time, high blood sugar can harm your nerves, eyes, kidneys, heart and blood vessels. The good news is that there is a lot you can do to stay healthy:

- ✓ Keep your blood sugar level well controlled.
- ✓ Keep your blood pressure under control.
- ✓ Keep cholesterol levels controlled.
- ✓ Eat well balanced meals.
- ✓ Follow a regular physical activity program.

### Health Prevention Activities with Diabetes (refer to chart on back page):

**Eyes:** See your eye doctor yearly for a dilated eye exam. When eye problems are left untreated, they can lead to blindness.

**Kidneys:** Have your blood pressure checked regularly. Have your urine checked yearly for protein. High blood pressure and protein in the urine can be warning sign of kidney damage.

**Heart:** Blood should be tested yearly for cholesterol levels. Seek medical attention for chest pain and/or shortness of breath. Control your cholesterol, quit smoking and exercise regularly.

**Feet:** Inspect your feet every day. Be alert for numbness and sores that don't heal. See your doctor or a foot doctor if you see any changes in your feet.

### Quit smoking.

**Teeth:** Brush your teeth at least twice a day, floss daily, and see your dentist two times a year.

**Sexuality:** Sexual problems can be due to diabetes. They can be treated. Talk to your doctor about treatment options.

**Vaccinations:** Keep your vaccinations current. Get an annual flu shot (influenza vaccine) each fall. Talk with your doctor about the Pneumonia Vaccine.

## Emergency Identification

In an emergency, you may not be able to give medical information about yourself. Many people wear Medical Alert bracelets or necklaces to inform emergency medical workers that they need special medical treatment. The bracelets can be purchased at your local drug store or through the MedicAlert company at 800-432-5378.

## Important numbers to remember

These items for good diabetes care are suggested by the American Diabetes Association (see page 10 of this booklet). Keep a current record and take it to you to your health care appointments. Also bring your list of medications with you. YOU can take charge of your diabetes.

		DATE/MY NUMBER			
TEST (how often)	GOAL				
A1 <sub>c</sub> test:	Under 7%				
Weight					
Foot exam					
Blood Pressure	130/80				
Cholesterol test: <b>TOTAL</b>	Under 200				
LDL	Under 100				
HDL	Male above 40 Female above 50				
Triglycerides	Under 150				
Urine Protein	Once a year				
Dilated Eye exam	Once a year				
Dental exam	Twice a year				
Flu shot	Once a year				
Pneumonia shot	*				

\*Pneumonia shot once in a lifetime. A revaccination is recommended for individuals over age 64 if vaccinated more than 5 years previously.

## **Diabetes Discovery Program – Outpatient**

Certified diabetes nurses and dietitians work with your doctor and help you learn more about:

- Nutrition
- Medications
- Blood Sugar levels
- Prevention of complications
- How physical activity can work for you
- How to deal with common problems
- Setting health goals you can reach

### **Services:**

- Group classes and individual instructions are available.
- Follow up visits are available to help keep you on track.
- A friend or family member may join you for all sessions.

### **Cost:**

Medicare, Medicaid, and many other insurance providers cover the program. Please check with your insurance contract for coverage.

Your physician must sign a prescription for classes. Please have him or her fill out and sign the form on the next page.

Refer to the resources page (on the back cover) for closest location of classes.



## St. John Health Diabetes Education Prescription Form

Patient Name \_\_\_\_\_ DOB \_\_\_\_\_ Telephone \_\_\_\_\_

Physician \_\_\_\_\_ Telephone \_\_\_\_\_

Diagnosis  250.03 – DM, type 1 uncontrolled  250.02 – DM, type 2 uncontrolled  
 648.8 – Gestational diabetes  790.29 – Other Abnormal Glucose

This prescription authorizes Diabetes Self-Management Training (DSMT) and/or Medical Nutrition Therapy (MNT)\* - including pre/post program A1c, urine microalbumin to creatinine ratio, lipid screening for Medical Nutrition therapy, blood glucose testing, fluogen and/or pneumonia vaccine if indicated, glucose meter and related testing supplies. Dietitian to determine nutritional needs, if not please specify current therapy \_\_\_\_\_

NOT cleared for exercise - state restriction \_\_\_\_\_

**Recent lab work:** (required only if not performed at a St. John Health facility)

A1c: \_\_\_\_\_ Date: \_\_\_\_\_ Microal: \_\_\_\_\_ Date: \_\_\_\_\_ HDL \_\_\_\_\_ LDL \_\_\_\_\_ Chol \_\_\_\_\_ Trig \_\_\_\_\_ Date: \_\_\_\_\_

New Dx: Fasting BG \_\_\_\_\_ Date: \_\_\_\_\_ 2nd Fasting: \_\_\_\_\_ Date: \_\_\_\_\_ Random BG \_\_\_\_\_ Date \_\_\_\_\_

**Reason for referral:**

New diabetes diagnosis/Uncontrolled diabetes – includes complete program (10 hours)

Please provide one BG > 200 or 2 levels > 126 at fasting above

Change in treatment regimen – includes: review of medication, monitoring, nutrition and exercise

Documented complications (foot, retinopathy, kidney, cardiovascular) – includes complete program

Special needs (hearing/vision impairment, language barrier, etc) requiring individual instruction

Previous diabetes education - needs review of: \_\_\_\_\_ in \_\_\_\_\_ hour(s) of education

Other \_\_\_\_\_

**Hours authorized:**  Full program up to 10 hours of class and 3 hours of Medical Nutrition Therapy

Specify \_\_\_\_\_ hours of DSMT/class and \_\_\_\_\_ Medical Nutrition Therapy

**Expected clinical outcome:**

Improve A1C  Lower Triglycerides/Cholesterol  Lower B/P

Weight Management  Good perinatal outcome  Other \_\_\_\_\_

Physician's Signature \_\_\_\_\_ UPIN# \_\_\_\_\_ Date \_\_\_\_\_

\*Note: Medicare covers 10 hours of DSMT ("class") and 3 hours of Medical Nutrition Therapy (MNT) in initial year of benefit. Thereafter, 2 hours of DSMT and 2 hours of MNT in each calendar year.

**For a physician referral or other information,  
call the St. John Health Connect  
1-888-440-7325**

## **Resources**

### **St. John Health Diabetes Discovery Programs:**

St. John Hospital and Medical Center..... 313-343-6830  
St. John Macomb Hospital..... 586-573-5731  
St. John River District Hospital ..... 810-329-5339  
Providence Hospital..... 248-849-3903

**American Diabetes Association ..... 800-DIABETES (342-2383)**

Web site: [www.diabetes.org](http://www.diabetes.org)

**American Dietetic Association ..... 800-877-1600**

[www.eatright.org](http://www.eatright.org)

### **Stop Smoking Phone Numbers:**

American Lung Association of Metro Detroit Region Michigan

Web site: [www.lungusa.org/tobacco/](http://www.lungusa.org/tobacco/) ..... 248-784-2000

American Cancer Society ..... 800-925-2271

### **Greater Detroit Agency for the Blind and Visually Impaired**

.....313-272-3900

**American Council for The Blind .....800-424-8666**

**U of D Dental Services .....313-494-6700**

**St. John Health Connect ..... 1-888-440-7325 (toll Free)**

Smokeless Program, Stress Management, Weight Management  
Diabetes Exercise classes and support groups.