A Self-Care Guide for the Management of Diabetes

Helping you to control diabetes in your life.

Visiting Nurse Service of New York
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ABOUT THIS SELF-CARE GUIDE

Diabetes is a serious medical condition that results when blood glucose levels are above normal. Though it can lead to life-threatening complications, making certain lifestyle changes can help you control the disease and prevent other serious health problems from occurring.

This self-care guide is designed to help you better manage your diabetes. Since you are the person who knows your body best, knows your habits and makes your lifestyle choices, you are also the person who must take charge of your health. Of course, you can’t do it alone. It’s important to create a health care team who can help you, so you can work together to control your diabetes. Let’s get started!
Diabetes is a disorder that occurs when the body either does not produce insulin or cannot use insulin effectively to convert the foods you eat into energy for your cells. This leads to high amounts of sugar in the blood, since it is not able to get into the cells of the body. If you have little or no insulin, this is known as type 1 diabetes. Most people with diabetes have type 2. This occurs when the pancreas does produce some insulin, but the cells do not respond to it. The pancreas has to make more and more insulin to do the work, and eventually, the pancreas becomes exhausted. This is called insulin resistance. Although some insulin is being produced, it is not enough to keep blood sugar levels normal. This is type 2 diabetes.

Insulin is a hormone that is produced in the pancreas. Before you had diabetes, when you ate food, your body made natural hormones that regulated the amount of insulin needed to move the glucose from your blood into your cells where it is used for energy. Diabetes results from a disruption of this natural process.

Who is at risk for developing diabetes?

There are some risk factors that increase someone’s chances of developing diabetes, including a family history of diabetes, being overweight and being inactive. Certain ethnic groups, such as African Americans, American Indians, Hispanics, and Asian Americans, are more likely to get diabetes, as are women who had gestational diabetes during pregnancy. However, diabetes can happen to anyone at any age and from any background. More than 23 million people in the United States have diabetes.
**A1c (eAG):** A blood test that measures a person’s average blood sugar level over the past three months by measuring the amount of sugar that stuck to red blood cells during that time period.

**Blood glucose (also known as blood sugar):** The sugar that is circulating in the blood stream and is available to the cells for fuel.

**Carbohydrate:** One of the three main nutrients we get from food and the main source of fuel for the body. Carbohydrates include fruits, vegetables, grains, pasta, milk and other starches that the body breaks down into sugar or glucose.

**Cholesterol:** A fatty substance produced in the body to help in digestion and cell building. It is one of the blood lipids.

- HDL cholesterol: A large fluffy substance that helps sweep away LDL (the “bad”) cholesterol.
- LDL and VLDL cholesterol are known as the “bad” cholesterol molecules that contribute to heart and vessel disease.

**Fat:** One of the three main nutrients we get from food. Fats help maintain healthy skin, supply some fuel and carry certain vitamins.

**Glucose:** A form of sugar - the body’s main source of energy.

**Hyperglycemia:** High blood sugar

**Hypoglycemia:** Low blood sugar

**Insulin:** A hormone produced in the pancreas that helps bring the sugar from the food you eat into the cells for energy. Think of insulin as the key that unlocks a cell so glucose can enter.

**Insulin resistance:** A condition in which the body produces insulin but does not use it properly.

**Ketone:** A substance produced when blood sugar is very high and the body cannot produce enough insulin to lower it. As a result, the body begins to break down fat and muscle. Ketones are a byproduct of the tissue breakdown.

**Lipid:** A term used for the fat in the blood. Lipids can be broken down by the body and used for energy. Lipids should be measured at least once a year. Too much of any type of lipid can cause heart and blood vessel complications.

**Pancreas:** An organ of the body that produces insulin, along with other hormones that help you digest your food. The pancreas is located near the liver.

**Protein:** One of the three main nutrients we get from foods. Proteins are the building blocks of cells, necessary to build muscle and repair cells. Your heart is made mostly of muscle.

**Triglycerides:** A type of fat found in your blood. Your body uses triglycerides for energy and they are necessary to maintain good health. However, high levels of triglycerides can raise your risk of heart disease.
There are three ways through which you can control your diabetes:

- **HEALTHY EATING**
- **EXERCISE**
- **MEDICATION**

Each one of these things is important to help you keep your blood sugar in control. If you have recently been diagnosed with diabetes, you may not be taking medication at this time. In that case, healthy eating and activity are the things that you should use to keep your diabetes in control. Let's take a closer look at healthy eating.
When you found out you had diabetes, did you think you wouldn’t be able to eat the foods you love?

The truth is, there is no special diabetes diet. Each person has individual likes and dislikes, foods that have special meaning or cultural significance and even foods that provide a certain kind of comfort. The trick is to make your choices carefully, control portion sizes, read food labels and use your glucose monitor to let you know if your choices were sensible ones. Understanding carbohydrates and learning how to plan meals will help you reach your goals.

Carbohydrate Counting

Finding the right balance of nutrients can be a challenge. Carbohydrate counting is a good approach to meal planning that involves counting the number of carbohydrates per meal. Start with the foods you eat most often. How many grams of carbohydrate per portion are in those foods? Many foods are combinations of carbohydrate, protein and fat but we focus on carbohydrates because those are the foods that most impact blood sugar. Many of these foods are healthy foods, important for fuel, vitamins and minerals—and they taste good! How will you know how many grams of carbohydrates are in a food? It’s a good idea to weigh and measure your food when you first start carbohydrate counting. This will help you learn about portion sizes, too.
Learning to Read Food Labels

Take a look at the foods in your cabinet to see what the “Total Carbohydrates” are compared to the Sugar line amount of sugar. If a food is a “sugar-free” food, you will see 0 grams of sugar listed, but often, a large amount of Carbohydrates. Remember, it is the Total Carbohydrates that are converted to glucose, not just the sugar.

One bit of good news: you can deduct the amount of “fiber” from the “Total Carbohydrates” since the fiber is not digested. Selecting high-fiber foods will aid in digestion, help reduce cholesterol and provide reduced glucose production.

Nutrition Facts

<table>
<thead>
<tr>
<th>Serving Size 1 cup (228g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Servings per Package 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories 260</td>
</tr>
<tr>
<td>Calories from Fat 120</td>
</tr>
<tr>
<td>% Daily Value</td>
</tr>
<tr>
<td>Total Fat 13g 20%</td>
</tr>
<tr>
<td>Saturated Fat 5g 25%</td>
</tr>
<tr>
<td>Cholesterol 30mg 10%</td>
</tr>
<tr>
<td>Sodium 600mg 28%</td>
</tr>
<tr>
<td>Total Carbohydrate 31g 10%</td>
</tr>
<tr>
<td>Dietary Fiber 2g 0%</td>
</tr>
<tr>
<td>Sugars 5g</td>
</tr>
<tr>
<td>Protein 5g</td>
</tr>
<tr>
<td>Vitamin A 4%</td>
</tr>
<tr>
<td>Vitamin C 2%</td>
</tr>
<tr>
<td>Calcium 15%</td>
</tr>
<tr>
<td>Iron 4%</td>
</tr>
</tbody>
</table>

Test your Label-Reading Skills

1. How many grams of Total Carbohydrate are in one serving of the above food?

2. Which nutrient has the greatest effect on blood glucose?
   a. Total Carbohydrates  c. Sugar
   b. Fiber

3. Which nutrient has the most calories per gram?
   a. Fat  c. Protein
   b. Carbohydrate

Answers: 31, a, a

This can contains two servings.

These are the nutrients that the body converts to sugar (glucose).

Sugar is already counted in the grams of Total Carbohydrates. For example, if you just looked at the amount of sugar in a food's sugar line, you might think this food will not affect your blood sugar very much. However, looking at the “Total Carbohydrates,” you find that you actually will get as much as 6x more glucose than you expected.

Take a look at the foods in your cabinet to see what the “Total Carbohydrates” are compared to the Sugar line amount of sugar. If a food is a “sugar-free” food, you will see 0 grams of sugar listed, but often, a large amount of Carbohydrates. Remember, it is the Total Carbohydrates that are converted to glucose, not just the sugar.

One bit of good news: you can deduct the amount of “fiber” from the “Total Carbohydrates” since the fiber is not digested. Selecting high-fiber foods will aid in digestion, help reduce cholesterol and provide reduced glucose production.
Plate Method

Below, you can see another way of thinking about meal planning.

The largest section of the plate should be dedicated to vegetables. They provide vitamins, minerals, fiber, bulk and taste.

The carbohydrate section, potatoes, rice, pasta (as well as fruit) provides the necessary fuel for your body.

Proteins, which include meat, poultry and fish, are important for building and repairing body tissues.

It is a good idea to see a dietician who specializes in diabetes and can help you with your meal planning. This will give you the confidence to make your choices and manage a healthy eating program.

When you count carbohydrate servings, one serving of starch, fruit or dairy counts as one “carb,” or approximately 15 grams of carbohydrate. Some examples would be:

- 1 slice of bread = 15 grams of carbohydrate = 1 carb = 1 serving
- 1 small fruit = 15 grams of carbohydrate = 1 carb = 1 serving
- 1 cup of milk = 15 grams of carbohydrate = 1 carb = 1 serving
Depending on the meal plan you have discussed with your health care team, the table below gives you an estimate of the number of grams of carbohydrates, or carb servings, you can include each day.

<table>
<thead>
<tr>
<th>Calories</th>
<th>Basic Carb Counting</th>
<th>Advanced Carb Counting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>40% carbohydrates 50% carbohydrates</td>
<td>6 servings 8 servings</td>
</tr>
<tr>
<td>1200</td>
<td>40% carbohydrates 50% carbohydrates</td>
<td>8 servings 9 servings</td>
</tr>
<tr>
<td>1500</td>
<td>40% carbohydrates 50% carbohydrates</td>
<td>9 servings 11 servings</td>
</tr>
<tr>
<td>1800</td>
<td>40% carbohydrates 50% carbohydrates</td>
<td>11 servings 14 servings</td>
</tr>
</tbody>
</table>

Of course, these should be divided into meals and snacks throughout the day. This will give nutritional energy to the cells in portions that should keep blood sugar levels in the target range. How will you know if the amount of carbohydrate was appropriate? Test your blood sugar before the meal, and then two hours after the meal. This will give you a good idea of how well you did. Keep a log of the information you are gathering so you can refer to it in the future. Pretty soon you will have a clear understanding of what foods are okay for you, and which foods raise your blood sugar above your target.

What will you do if you find that one or more of your favorite foods makes your blood sugar rise too high? Is it reasonable to say that you will never eat that food again?

Of course not. You may choose to have a smaller portion of the food, or have it less often. These decisions, based on information you are gathering, will really put you in charge of your diabetes. Also, remember that protein and fat are not included in carbohydrate counting. But, if you are trying to lose weight, you will need to limit the portions of protein and fat that you eat. We have become so used to “super-sizing” portions that you may be surprised at the size of portions that are actually healthy. Use smaller plates, plenty of colorful vegetables and foods with fiber to fill you up and help you feel satisfied.
Other tips for healthy eating include:

- Don’t skip meals.
- Eat a variety of foods, especially fresh foods that are high in vitamins, minerals and fiber.
- Eat slowly.
- Instead of preparing fried foods, use cooking spray, water or broth instead of oil. Substitute olive oil or canola oil for butter or lard.
- Animal fats, such as fatty meats, butter and saturated fats add pounds and contribute to high cholesterol, LDL cholesterol and heart disease. Choose lean meats like chicken, turkey and fish. Use low-fat foods and avoid processed foods when possible.
- Sodium (salt) can increase your risk of high blood pressure. Canned, processed and frozen foods, snack foods, such as potato chips and pretzels and seasonings, often contain large amounts of salt. Be careful with your choices, read labels and add little or no salt at the table.
- Avoid all sugar-sweetened drinks, including fruit juices. Eat whole fruit instead of having fruit juice. One exception: Fruit juice is a good choice for treating low blood sugar.
- Drink plenty of water, 6-8 glasses a day.
- Adding fiber to your diet will aid in digestion, help you feel more satisfied and can help lower cholesterol. High-fiber foods include most fruits and vegetables, whole wheat breads and pastas, bran cereals and legumes, such as kidney beans, navy beans, black beans.
- Sugar-free foods, except for drinks, are often loaded with carbohydrates, will raise blood sugar unexpectedly and are generally quite expensive. Choose regular foods and limit your portions.

Healthy eating is good for the whole family. You do not need “special” foods or diets.
Special Occasions

Eating out.
Dining out can present a challenge. Restaurants often have large portions and, of course, you don't always know exactly how foods are prepared. Keep portion control in mind. Ask for the bread and butter to be taken away so you're not tempted to eat it. Ask to have your food broiled or grilled, rather than fried. Most restaurants are happy to honor your requests. Take half of the meal home in a “doggy bag.”

Parties and holidays
Special occasions may present difficult choices. Plan ahead and adjust your meal plan so you can enjoy some of the festivities without overeating.

Alcohol
Alcoholic beverages may be consumed in moderation. Women may drink no more than one drink a day and men should consume no more than two drinks a day. Alcohol can quickly affect blood glucose, often lowering it unexpectedly. Don't drink on an empty stomach. It is important to discuss using alcohol with your health care provider to be sure it does not interfere with other medications that you may be taking.

Goal Setting
Setting specific, achievable goals can make it easier to incorporate healthy changes into your meals. What one thing can you do to improve your eating habits? Choose a goal that you feel confident you can achieve in a defined amount of time. Some suggestions are:
- I won’t skip meals for two weeks
- I will not drink any sugar-sweetened drinks or juice, this week
- I will test my blood sugar before and two hours after I eat pizza

These are specific goals that can be tried and completed in a short time. If you are not successful, try to identify the barrier. Can you overcome that barrier? If not, try a different goal and come back to the first one at a later date. Don’t set yourself up for failure — plan for success!
Exercise plays an important role in managing your diabetes. Over time, uncontrolled diabetes can reduce your lean muscle mass while adding fat to your body. This increases your need for medication and makes diabetes management more difficult. By adding activity to your day, you can rebuild healthy muscle mass and improve your ability to burn sugar.

Being physically active helps improve blood pressure and cholesterol as well as control blood sugar. A walking program can be a great way to get started. Ask a friend to join you and use a pedometer to measure your progress (Always check with your doctor before starting any exercise program).

If you are trying to lose weight, increasing activity to 60 minutes a day will help. A weight loss of even five to 10 pounds will improve blood glucose control. There is no one best exercise, but aerobic (or cardiovascular) exercise helps to:

- Lower blood sugar
- Lower blood pressure
- Strengthen heart and lungs
- Reduce stress
- Give you more pep and energy

Examples of aerobic exercises are:

- Walking briskly
- Cycling
- Dancing
- Swimming

Talk to your health care provider about adding strengthening exercises, such as lifting light weights. This helps build muscle and increase endurance.
Exercise Tips

- Exercise three to five days a week. If you exercise at about the same time every day, it is easier to manage your blood sugar.

- Begin slowly, even starting out by walking for just one or two minutes. Build up to 20-30 minutes a day.

- Wear comfortable clothing and properly fitted sneakers or shoes and socks with no holes.

- Warm up before exercise and cool down after with light stretching.

- If you take insulin, on exercise days, inject it into your abdomen, not your arms or legs, to prevent too rapid absorption of the insulin.

- If you take insulin, you may be able to adjust your dose before an activity. (Discuss this with your health care provider.)

- Don't exercise if blood glucose is too high or too low.

- Wait until your blood glucose level is within your target range.

- ALWAYS carry a quick-acting sugar, such as glucose tablets, with you. If you take diabetes medications you can experience low blood sugar during and after exercise, so be prepared.

- Check your blood sugar before starting activity and keep track of blood sugar after the activity.

- Keep information in your journal about which activities have the greatest effect on blood sugar and plan accordingly.

- Carry personal identification, such as a driver’s license. Wear a medical ID bracelet or medal that says you have diabetes.

- Drink plenty of water before and during activity.

- Carry your cell phone.

- Stop exercising if you feel pain, upset stomach or trouble breathing and report symptoms to your health care provider.

Goal Setting

Is there one goal that you would like to work towards when it comes to being active? Remember, it should be something specific that you think you can accomplish in one to two weeks. Examples may be:

- I will walk around the block four out of seven days this week
- I will use a pedometer and increase my steps by 100 steps every day this week
- I will carry my cell phone with me when I take the dog for a walk each day this week

As you accomplish each goal, congratulate yourself and work towards the next goal in your management plan.
Managing your diabetes every day may seem like a difficult job, but it can reduce your risk of health complications. Testing blood sugar is an important part of being in charge of your diabetes.

**MONITORING YOUR HEALTH STATUS**

**Blood Glucose Monitoring**

Managing your diabetes every day may seem like a difficult job, but it can reduce your risk of health complications. Testing blood sugar is an important part of being in charge of your diabetes.

**THINGS TO KNOW:**

- If you do not have a blood glucose meter, your VNSNY nurse will order one for you. If this is a new skill for you, your VNSNY nurse will show you how to get started.

- Steps on how to check your blood sugar are included with every new blood glucose meter. Your VNSNY nurse will also show you how to use your meter, and how to keep a record of your blood glucose results.

- All blood glucose meters have a toll-free customer care telephone number on the back. This is a great resource so register your meter and use the customer care number to get help if you need it.

- Most meters have a memory which keeps the blood glucose results for 30 days or more. You can bring the meter when you visit your doctor and review your past results.

Keeping your blood sugar in a set range, as suggested by your doctor, will help you feel better and may decrease your risk for health problems later. Together you and your doctor will decide how often you should check your blood glucose. Some people check their blood glucose once a day and others check it more often. If you only check your blood sugar once a day, don’t always do it at the same time. For example, if you only check every morning before breakfast, there are 23 hours and 59 minutes in the day that you don’t know your level. Use your meter like a detective. Check, again before you eat and two-hours after a meal to track the effect from that particular meal. Check before you go to bed and again when you get up a few times each month as well. This information can help your doctor prescribe the best possible diabetes medication for you. If you are on insulin therapy, it is important to check more frequently. Ask your nurse or doctor.

**IMPORTANT: Be sure to ask your doctor for your individual target.**
The America Diabetes Association (ADA) recommends the following blood sugar goals for people with diabetes:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before Meals</strong></td>
<td>70-130 mg/dl</td>
</tr>
<tr>
<td><strong>After Meals</strong></td>
<td>Less than 180 mg/dl</td>
</tr>
</tbody>
</table>

Whether you have type 1 or type 2 diabetes, one of your main treatment goals is controlling your blood sugar by keeping it as close to normal as possible. People without diabetes normally have blood sugar levels that range from 70 to 110 mg/dl.

**My target range or blood glucose goals are:**

- Before meals: ________
- After meals: ________
- Bed time: ________

**Alternate Site Testing**

Most blood glucose meters allow you to test without having to take blood from your fingertips. Meters can usually test blood taken from other body sites, such as the arm, thigh and hand. The ability to choose other body sites is useful for people who find it painful or difficult to withdraw blood from their fingertips. If you decide to use other sites for testing, however, be aware that there may be a real difference between the fingertip result and other site results when blood glucose levels are changing rapidly in your body. It is best to speak with your doctor or VNSNY nurse if this is an idea you are considering.
A1c / Estimated Average Glucose

The A1c or Estimated Average Glucose (eAG) is a blood test. It measures how much sugar stuck to your red blood cells over the past nine to 12 weeks. By tracking the results, you can get an overall picture of how successful your diabetes management has been in that time.

You should always request a copy of your lab work and keep it filed where you can access it. This is important for you to make sure you are trending in the right direction with your management skills, or if you need to improve in some areas. You will also want to take these records with you if you change health care providers.

My current A1c/eAG is: _______ My A1c/eAG target is: _______

<table>
<thead>
<tr>
<th>A1C%</th>
<th>eAG mg/dl</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>97</td>
</tr>
<tr>
<td>5.5</td>
<td>111</td>
</tr>
<tr>
<td>6</td>
<td>126</td>
</tr>
<tr>
<td>6.5</td>
<td>140</td>
</tr>
<tr>
<td>7</td>
<td>154</td>
</tr>
<tr>
<td>7.5</td>
<td>169</td>
</tr>
<tr>
<td>8</td>
<td>183</td>
</tr>
<tr>
<td>8.5</td>
<td>197</td>
</tr>
<tr>
<td>9</td>
<td>212</td>
</tr>
<tr>
<td>9.5</td>
<td>226</td>
</tr>
<tr>
<td>10</td>
<td>240</td>
</tr>
<tr>
<td>10.5</td>
<td>255</td>
</tr>
<tr>
<td>11</td>
<td>269</td>
</tr>
<tr>
<td>11.5</td>
<td>283</td>
</tr>
<tr>
<td>12</td>
<td>298</td>
</tr>
</tbody>
</table>

Testing for Ketones (see glossary)

Your doctor may want you to test your urine for ketones, if you have high blood sugar, nausea, or vomiting. Having ketones in the urine is most common in people who have type 1 diabetes, but it can occur in those with type 2 diabetes. You can test your urine with a ketone dip stick. It’s a good idea to keep urine ketone sticks on hand, in case you are sick. You can buy urine testing sticks at your local drug store and simply follow the directions on the package.

Also, here are some general steps for urine testing:
- Collect urine in a clean cup.
- Dip test strip into urine and remove.
- Wait for the time required in the directions.
- Compare the color of the pad on strip to the color chart on the test strip bottle.
- Call your doctor if you have moderate or large ketones in your urine.
Blood pressure is a measure of how hard your blood is pressing against your artery walls. It is recorded as two numbers:

\[
\text{BLOOD PRESSURE} = \frac{\text{Systole}}{\text{Diastole}}
\]

The top number is when the heart contracts (systolic pressure)
The bottom number is when the heart is at rest (diastolic pressure).

**WHAT'S NORMAL BLOOD PRESSURE?**
This chart reflects blood pressure categories as defined by the American Heart Association. Lipid abnormalities contribute to cardiovascular disease.

<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Systolic mm Hg (upper #)</th>
<th>Diastolic mm Hg (lower #)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>less than 120 and</td>
<td>less than 80</td>
</tr>
<tr>
<td>Prehypertension</td>
<td>120 – 139 or</td>
<td>80 – 89</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 1</td>
<td>140 – 159 or</td>
<td>90 – 99</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 2</td>
<td>160 or higher or</td>
<td>100 or higher</td>
</tr>
<tr>
<td>Hypertensive Crisis (Emergency care needed)</td>
<td>Higher than 180 or</td>
<td>Higher than 110</td>
</tr>
</tbody>
</table>

**NOTE:**
- Blood pressure should be measured at every doctor’s visit and every time a VNSNY nurse or a therapist visits your home.
- Target Blood Pressure for all people with diabetes is less than 130/80 mm/Hg.
Managing your triglycerides and cholesterol, especially lowering LDL cholesterol, reduces your chance of developing cardiovascular disease. A person with diabetes who lowers his LDL cholesterol can reduce cardiovascular complications by up to 50 percent.

### Target for Most Adults with Diabetes:

<table>
<thead>
<tr>
<th>Lipid Guidelines</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triglycerides (TG)</td>
<td>&lt; 150 mg/dl</td>
</tr>
<tr>
<td>Low-Density Lipoprotein (LDL)</td>
<td>&lt; 100 mg/dl</td>
</tr>
<tr>
<td>High-Density Lipoprotein (HDL)</td>
<td></td>
</tr>
<tr>
<td>Males/Females</td>
<td>&gt; 40 mg/dl/ &gt;50 mg/dl</td>
</tr>
</tbody>
</table>

**Eating a Low-Fat Diet**

To protect your heart cut down on foods high in cholesterol and certain other fats that clog your blood vessels. This will also help decrease your chance of having a heart attack or stroke.

**Some Steps to Cut Down on Sodium:**

- Do not add salt when cooking. Try using other flavorful spices.
- Remove the salt shaker from your table.
- Read food labels for sodium content and avoid foods high in sodium.
- Avoid processed and fast foods.

Cutting down on sodium is a very important way to keep your blood pressure under control.
CHOOSE FATS WISELY

Your body needs some fats to stay healthy. However, eating too much of some types of fat is bad for your heart. Try to choose the healthier fats and avoid unhealthy fats (see chart below).

<table>
<thead>
<tr>
<th>Type of Fat</th>
<th>CHOOSE</th>
<th>LIMIT</th>
<th>AVOID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Unsaturated Fats (good fats)</td>
<td>• Saturated Fats (Bad Fats)</td>
<td>Trans Fats</td>
</tr>
<tr>
<td>Where It Is Found</td>
<td>• Nuts, seeds</td>
<td>Animal products, for example: • Beef, pork, egg yolks, organ meat High-fat dairy, for example: • Ice cream, whole milk cheese</td>
<td>• Snack foods</td>
</tr>
<tr>
<td></td>
<td>• Fish</td>
<td>• Avocados</td>
<td>• Olive and canola oils</td>
</tr>
</tbody>
</table>

WHAT IS CHOLESTEROL?

Cholesterol is a fatty, wax-like substance found in the bloodstream and your body’s cells. Your body needs some cholesterol to stay healthy. Too much cholesterol can clog your blood vessels and make heart failure worse. Cholesterol is absorbed into the blood from foods. One way to lower your cholesterol is to cut down on the amount of cholesterol you eat. In some cases, your doctor may also prescribe medications to lower your cholesterol.

A CHOLESTEROL PROFILE INCLUDES:

<table>
<thead>
<tr>
<th>CHOLESTEROL PROFILE INCLUDES:</th>
<th>HEALTHY VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholesterol</td>
<td>Below 200 mg/dl</td>
</tr>
<tr>
<td>LDL (bad) cholesterol</td>
<td>Below 100 mg/dl</td>
</tr>
<tr>
<td>HDL (good) cholesterol</td>
<td>35 to 55 mg/dl or more (the higher the better)</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>Below 150 mg/dl</td>
</tr>
</tbody>
</table>

NOTE: Ask your healthcare provider about your cholesterol levels.
HOW TO CUT DOWN ON FAT AND CHOLESTEROL IN MEALS:
Just as you are learning to cook with less salt you can also learn to cook with less fat and cholesterol. Foods may taste different at first, but in time you will enjoy the new taste. Check ☑ any changes you are ready to make:

☐ Bake, steam, microwave, or broil foods; avoid frying.
☐ Before cooking, trim fat and remove skin from chicken or other poultry.
☐ Choose lean cuts of meat.
☐ After cooking, chill soups and stews and skim off fat before reheating and serving.

☐ Try using half as much cheese as the recipe calls for, or even less. Choose dairy products with 0-1% fat.
☐ Cook with canola oil, olive oil, or trans-fat free margarine instead of butter or regular margarine.
☐ Remember that cheeses and low-fat foods can be high in sodium, so check the label and buy low-sodium foods.

EATING A HEART-HEALTHY DIET
A heart-healthy diet includes a balance of protein (meat/fish/poultry/beans), low-fat dairy products, fruits, vegetables, and grains. It is also low in sodium and low in fat. Good food is like medicine—it can heal and repair your body to make you stronger!

Monitoring Weight
Managing weight is another way to control your diabetes.

If you are overweight (see BMI table), a weight loss of as little as five to 10 percent can make a difference in bringing your blood glucose, blood pressure, and cholesterol numbers to acceptable levels. Having a scale in your house can help you monitor your weight.

MAINTAINING A HEALTHY WEIGHT

OVERWEIGHT
Being overweight increases the work your heart does. It also raises your risks for many other health problems. Being overweight can make the symptoms of heart failure worse. This results in an increase in shortness of breath and increased tiredness after activity. Cutting out some foods, like soft drinks, packaged cakes and cookies, alcohol, and salty snacks can help.

UNDERWEIGHT
If you are not active, your muscles, including your heart muscle, get weaker. To rebuild muscles, you need protein from low-fat dairy products, lean meat, chicken, fish and vitamins and minerals from fruits and grains. If you are overweight or underweight, work with your nutritionist or doctor to set safe eating and weight-loss goals.
that form when blood sugar is high over a period of time. These small bits are like grains of sand and are known as Advanced Glycosolated End products, or AGEs. They collect in small vessels of the eyes and kidneys, causing microhemorrhages, and in the larger blood vessels, trapping LDL cholesterol to form blockages.

Managing blood sugar and weight are important parts of diabetes management, but don’t forget the rest of your body. Diabetes affects people from head to toe. Think of diabetes as a disease of the blood vessels, which is where most complications occur. Many complications of diabetes arise from small, hard bits of protein that form when blood sugar is high over a period of time. These small bits are like grains of sand and are known as Advanced Glycosolated End products, or AGEs. They collect in small vessels of the eyes and kidneys, causing microhemorrhages, and in the larger blood vessels, trapping LDL cholesterol to form blockages.

They also collect at nerve endings which prevents nerves from responding properly. How can you prevent this complication? Keep blood sugar under control and be sure to have regular checkups with your diabetes doctor as well as an eye doctor. Your doctor will order blood work and urine tests to monitor your heart, kidneys and liver.

BMI (Body Mass Index) is a measure of body weight relative to height. BMI can help determine if you are at a healthy weight, overweight or obese.

<table>
<thead>
<tr>
<th>Height (ft./in.)</th>
<th>Weight (lbs.)</th>
<th>BMI TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4'5&quot;</td>
<td>120-130</td>
<td>Underweight</td>
</tr>
<tr>
<td></td>
<td>130-140</td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td>140-150</td>
<td>Overweight</td>
</tr>
<tr>
<td></td>
<td>150-160</td>
<td>High risk with the medical diagnosis of obesity.</td>
</tr>
</tbody>
</table>
Monitoring Kidney Health

High blood sugar can overwork the kidneys, causing them to stop working properly. Diabetic kidney disease takes many years to develop. When diagnosed early, kidney disease can be slowed with treatment. To monitor your kidney function, your doctor will order a urine test for microalbumin at least once a year. This can show if you have early signs of kidney disease.

Monitoring Eye Health

Diabetic eye disease may have no warning signs. Finding and treating the disease early, before it causes vision loss or blindness, is the best way to control it. If you have diabetes, make sure you get a dilated retinal examination at least once a year. If you do have any problems, such as seeing a dark spot, pain in your eye or trouble seeing in dim light, contact your eye doctor.

Monitoring Foot Health

Diabetes can cause many different foot problems, starting with nerve damage which is known as neuropathy. Neuropathy results in loss of feeling in your feet. Poor blood flow or changes in the shape of your feet or toes may occur. Diabetic nerve damage may cause severe pain, a sensation of “pins and needles” or it can prevent you from feeling heat and cold. Loss of feeling often means you may not feel a foot injury.

Nerve damage and loss of small muscle fibers lead to changes in the shape of your feet and toes. Pressure from poorly fitting shoes and loss of fatty tissue under the base of your toes will cause a build up of calluses.

Diabetes may cause changes in the skin of your feet. Your feet no longer produce sweat and they become very dry, sometimes cracked. Any small opening will allow bacteria into the tissues and can become the beginning of abscesses or foot ulcers.
FOOT CARE

Look at your feet twice every day, once in the morning and again before bed. Look for redness, cuts, sores or blisters. If you can’t see your feet, use a mirror or have someone check them for you.

Clean feet every day with mild soap. Do not soak your feet, which can dry the skin and contribute to cracks.

Pat feet dry, especially between toes.

Put lotion or cream on your feet to keep skin moist and soft. Do not put lotion or cream between your toes.

Test your blood sugar regularly. A sudden, unexplained rise in blood sugar might be the first sign of a foot infection.

It is best to have regular foot care by a podiatrist. However, if you are cutting your own toenails, do so the day before you see your doctor and ask him/her to check your feet to make sure you did not cut into the skin.

TOENAIL CARE

Trim your toenails straight across.

Do not cut toenails too short.

Use an emery board to file edges.

Do not cut cuticles.

- It is best to avoid nail salons for pedicures.
- If toenails are thick, long or hard to trim, see a foot doctor (podiatrist).
- If you cut your own toenails, it is best to do so the day before you have an appointment with your doctor. Let your doctor know you cut your toenails, and ask him/her to check and make sure there are no issues.

Daily foot care will lessen the risk of diabetes-related foot problems.
Good Skin and General Health Habits

Diabetes puts you at risk for skin problems and infection. Learn early signs of trouble and what to do to prevent infection.

- Use lotions to keep skin moist and soft.
- Protect your skin from the sun with sunscreen (an SPF of 20 or higher is best).

Know the signs of infection:

- Redness
- Pain
- Swelling
- Warmth
- Raised bumps or pimples
- Fever
- Unexplained high blood sugar

Monitoring Dental Health

People with diabetes are at risk for gingivitis, a gum disease that can cause destruction of the gums and weaken the bones that hold the teeth. Infections that start in the mouth can eventually affect the heart and other organs. Be sure to visit the dentist regularly and report any problems to the dentist without delay. Good dental hygiene, such as brushing teeth and flossing, are important parts of your diabetes management.

Blood Tests and Immunizations

Ask your doctor for a schedule of when you should have blood tests—should they occur every three months, six months, annually? Planning for tests will help you feel in charge of your diabetes management.

Influenza and pneumonia vaccinations can also help you to stay healthy. Check with your health care provider about when to schedule these vaccinations.
Goal Setting
Think about what choices you have made to monitor your diabetes. Is there a small goal that can help you feel more in charge of your health?

Some suggestions include:

- I will call and make an appointment to see my doctor (ophthalmologist, dentist, gynecologist) this week, and I will keep this appointment.
- I am going to check my blood sugar before and two hours after three of the meals I consume this week, and I will write the results in my logbook.
- I will try to check my own blood sugar, at least once this week.

The decision to take charge is yours. What will you decide? On a scale of 1 to 10, how successful do you think you will be with your goal? If the answer is less than 7, it may not be the right goal for you at this time. Try setting a small, achievable goal so you will be successful.

TAKING MEDICATION
Diabetes medications help to control your blood sugar along with diet, exercise and weight loss. You may take one medication or several to manage diabetes.

It is important that you know how these medications work, when to take them, the prescribed dosage and what to expect from each medication. Your health care team will help you organize and understand your medications. Be sure to let them know about all the medications you are taking, including over-the-counter medications, herbal and vitamin supplements, eye drops, etc.

Do you know when to take your medications? Before meals? With meals? At Bedtime?

Medication errors are one of the most common reasons that people become hospitalized. People with diabetes often take a number of different medications to control blood sugar, blood pressure, cholesterol and depression—and you may have other conditions that require you to take even more medications—so you can see that managing medications can be difficult. Speak with your VNSNY nurse, doctor or pharmacist so you are sure of when and how to take each medication. Never guess how much to take or take more than the prescribed dose, even if you forgot to take an earlier dose. Always check with a professional before adjusting, adding or omitting any medication. Bring your updated medication list to all of your medical appointments so each member of your health care
team knows which medications you are taking. If you have difficulty taking any medications, let your health care professional know the problem. Whether it is because of side effects, cost of the medications or other barriers, it is important to share that information with your health care team. Remember, working together with your health care team, you can work out a solution.

When a new medication is ordered, ask your health care provider what it does and if you can expect any side effects. It is wise to check your blood sugar more frequently for a few days after starting a new medication. This way, you can see if the medication is doing what you and your doctor expect it to do. The goal is to take the right medication, in the correct dose, at the right time!

### Oral Medications

<table>
<thead>
<tr>
<th>TYPE OF MEDICATION</th>
<th>HOW IT WORKS</th>
<th>MEDICATION NAME</th>
<th>POSSIBLE SIDE-EFFECTS AND PRECAUTIONS</th>
</tr>
</thead>
</table>
| Biguanides         | • Insulin sensitizer;  
                      • Best taken with meals (take XR with evening meal);  
                      • Decreases glucose release from liver | Glucophage  
Glucophage XR  
Metformin | • Occasional GI disturbance, diarrhea;  
• Use cautiously in those over 80 yrs  
• Alert physician if you have kidney or liver disease |
| Sulfonylureas      | • Increases insulin secretion from pancreas | Glimiperide (Amaryl)  
Glyburide (Glynase)  
Glipizide (Glucotrol) | • Risk of hypoglycemia;  
• Weight gain;  
• Do not skip meals |
| Thiazolidinediones | • Decreases insulin resistance | Actos  
Avandia | • Weight gain;  
• Fluid retention;  
• Edema;  
• Alert physician if you have liver disease or congestive heart failure |
| Alpha Glucosidase Inhibitors | • Slows digestion of carbohydrates;  
• Take with first bite of meal | Precose  
Glyset | • GI disturbance;  
• Costly |
| DPP-4 Inhibitors   | • Increases insulin secretion;  
• Suppresses glucagon from the liver | Januvia  
Onglyza | • Costly;  
• Risk of hypoglycemia |
| Glinides           | • Stimulate insulin secretion; rapid-action  
• Take ½ hour before meals | Prandin  
Starlix | • Some risk of hypoglycemia;  
• Weight gain;  
• Skip dose if skipping meal |
| Combination oral (Avandia and Metformin) (Glucotrol and Metformin) | • Combined action of each of the medications;  
• Take as ordered, once or twice a day | Avandimet  
Glucovance | • Consider the information above for each individual medication |
**Starting Insulin Therapy**

**People with type 1 diabetes** require insulin therapy from the time they are diagnosed with diabetes.

**People with type 2 diabetes** commonly use pills to control blood sugar levels in the early stages. However, diabetes pills may become less effective over time. Your health care provider may prescribe insulin if the pills are not enough to get your blood glucose into a healthy target range. This is called “combination therapy”.

**THINGS TO KNOW:**

Insulin and some other diabetes medications are injected, rather than taken by mouth. (Because these medications have a protein base, they would be destroyed in the stomach.) Injecting them under the skin allows them to get into your body to do the necessary work to improve your blood sugar. While injecting a medication may seem frightening at first, you will learn to manage it and eventually, it will become easy for you to do. Your VNSNY nurse can coach and support you as you learn to manage injection therapy.

Insulin can be delivered with a needle and syringe, a prefilled insulin pen or insulin pump. Insulin, used incorrectly increases the risk of low blood sugar or high blood sugar, so you should not guess about anything involved in administering it.

There is no one treatment that works for everyone, so talk to your doctor about the treatment that is best for you. In addition, it may take some time to adjust your medications to bring your blood sugar into normal range. Remember, the complications from diabetes are caused by frequent high blood sugars.

It is important to know which insulin to take, when to take it, how much to take and what results you should expect. If you are not absolutely sure, check with your VNSNY nurse or doctor.
Injecting Insulin

SOME TIPS:

Choose the injection site that is best for you.
The abdomen is the preferred location for injecting insulin because it is steadily absorbed there. Insulin can be absorbed erratically in the arms and legs, depending on your activity. For example, if you take a walk, the insulin you injected in your thigh may absorb more quickly than it would on days when you don’t walk.

Move injection site by one inch at each injection.
You should not return to the same spot for 30 days. That will help in consistent absorption as well.

If you are taking long-acting insulin and short- or rapid-acting insulin, they should be administered using different syringes, different needles and into different sites.
Using your Left abdomen for “long-acting” (remember “L” for left and “L” for long-acting) and your right side for other insulin (Remember “R” for right and “R” for rapid) is a suggestion.

Insulin pens and vials can be kept in the refrigerator, unopened, until the expiration date.
Once opened, insulin does not need refrigeration and can be kept at room temperature unless greater than 77 degrees. Check with your pharmacist or read the package insert to see how long insulin can be used once opened. If you are using “cloudy” insulin be sure to mix it thoroughly by gently rolling or rotating. Do not shake pen or vial to mix.

Long-acting insulin and short or rapid-acting insulin are clear. They have very different actions and can cause severe hypoglycemia, if used incorrectly.
In order to be sure you are choosing the correct pen or vial, double check the name. As an added safety measure, putting a rubber band around the rapid-action insulin will alert you. (Remember “R” for rapid and rubber band.) If you do make a mistake, contact your health care provider immediately or go to the emergency room.
<table>
<thead>
<tr>
<th>TYPE OF INSULIN</th>
<th>HOW IT WORKS</th>
<th>MEDICATION NAME</th>
<th>POSSIBLE SIDE-EFFECTS AND PRECAUTIONS</th>
</tr>
</thead>
</table>
| Rapid-Acting   | • Inject 5 to 15 minutes before a meal;  
• Peaks in 1 to 2 hours;  
• Duration is 3 to 5 hours;  
• Available in vial and pen | Humalog  
Novolog  
Apidra | • Hypoglycemia;  
• Should not be taken at bedtime;  
• A clear insulin; |
|                |             |                 |                                       |
| Short-Acting   | • Inject 30 minutes before meal;  
• Peaks in 2 to 4 hours;  
• Duration up to 5 to 7 hours;  
• A pre-meal insulin; | Humulin R  
Novolin R | • Hypoglycemia;  
• Should not be taken at bedtime;  
• Less predictable than rapid-acting insulin but 1/3 the cost;  
• A clear insulin |
| Intermediate   | • Action starts 1 to 2 hours after injecting;  
• Peaks in 4 to 8 hours;  
• Duration up to 18 hours;  
• Usually dosed twice a day;  
• Available in vial and pen | NPH | • Hypoglycemia;  
• A cloudy insulin, needs to be gently mixed or rolled 20 times before injecting |
| Long-Acting    | • Has a flat action, no peak;  
• Duration 18 to 24 hours;  
• Used as a “background” insulin;  
• Often prescribed as first line of insulin therapy;  
• Usually dosed once a day;  
• Available in vial and pen | Lantus  
Levemir | • Hypoglycemia;  
• A clear insulin – use caution not to confuse with rapid or short-acting insulin;  
• Do not mix with any other insulin.  
• Do not prefill Lantus in a syringe |
| Mixed          | • Combination of rapid (25 or 30%) and intermediate insulin (75 or 70%);  
• Short-acting (30%) and intermediate insulin (70%);  
• Combination of rapid (50%) and intermediate (50%) insulin;  
• Usually doses twice a day, before breakfast and before dinner  
• Available in vial and pen | Humalog Mix 75/25  
NovoMix 70/30  
Humulin 70/30  
Novolin 70/30  
Humalog Mix 50/50 | • A cloudy insulin, needs to be gently mixed or rolled 20 times before injecting;  
• Should not be taken at bedtime |
| U-500          | • Used in special situations | | • Hypoglycemia |
How are you doing with your medications? Is there one goal that you would like to choose to improve your diabetes? Here are some suggestions for man-ageable goals:

- I haven’t been taking my medications because they are too expensive. I will call my doctor tomorrow and ask if there is a less costly medica-tion that can do the job. I will not feel em-barrassed. The doctor is part of my team.
- I forget to take my medications in the morning. I will put them by the coffee maker tonight so I see them first thing in the morning.

Goal Setting

How are you doing with your medications? Is there one goal that you would like to choose to improve your diabetes? Here are some suggestions for man-ageable goals:

- I haven’t been taking my medications because they are too expensive. I will call my doctor tomorrow and ask if there is a less costly medication that can do the job. I will not feel embarrassed. The doctor is part of my team.
- I forget to take my medications in the morning. I will put them by the coffee maker tonight so I see them first thing in the morning.

Goal Setting

What will you work on?

Good medication management is one of your most important roles in managing your diabetes.

Problem Solving

Hyponglycemia

Low blood sugar can happen quickly if you skip or delay a meal and have taken your diabetes medication. Exercise or unexpected physical activity can also cause a drop in blood glucose unless you have taken extra carbohydrates to provide the fuel to keep blood sugar normal. You may feel shaky, dizzy, or light-headed. Profuse sweating may occur. Always be prepared by keeping a source of quick-acting sugar in your pocket, purse or in your car's glove compartment. Some quick-acting sugars include: glucose tablets, life savers, and sugar-sweetened drinks. You should also be careful not to over-treat the episode. If you consume too much sugar or soda, your blood sugar can rise above your target. Take ½ cup juice.
or soda, or 4 glucose tablets, or 7 hard candies, such as lifesavers, and wait 15 minutes. Test your blood sugar again. If it is still below target, repeat the process. Have a light snack following the recovery. This is called the “Rule of 15,” which refers to taking 15 grams of carbohydrate, waiting 15 minutes and repeating, if necessary. There may be times when you are not able to recognize or treat your low blood sugar and you may become unresponsive. Family and friends should be alerted to call 911 and to administer glucagon while they await professional medical help. Glucagon is an injectable form of medication that raises blood glucose quickly when someone is unable to take food by mouth. Every person who takes insulin should have glucagon in their “sick day” box and family members should be coached on when and how to use it. You will need a prescription from your health care provider.

HYPERGLYCEMIA

High blood sugar can be caused by eating too many carbohydrates. However, there are other potential causes that should be considered if your blood sugar is too high:

1) Infection. Any infection will raise blood sugar because you can't produce enough insulin to help your body fight the bacteria. Skin rashes or abscess, gum or tooth abscess, boils, foot ulcers, and a cold or flu are all possible reasons for elevated blood glucose.

2) Dehydration. Dehydration will also raise blood sugar.

3) Certain medications. If you are on steroid therapy, chemotherapy, or HIV medications, these drugs may elevate blood sugar. Whatever the reason, blood sugar needs to be in target. You may need extra diabetes medication. Discuss with your health care provider.

Glucagon can be used to treat severe hypoglycemia. If your diabetes care plan includes the use of glucagon, make sure to read the entire glucagon package insert BEFORE attempting to use it. Ask your health care team if you have any questions about how to use glucagon.

Signs of hypoglycemia

Eating too many carbs can lead to high blood sugar levels.
Sick Day Management

When you are sick, you need to take even better care of yourself. It’s recommended that you prepare a “sick day” box that is easily accessible. Your sick day box should contain emergency telephone numbers, a glucagon kit, a can of regular soda or juice box, a can or packet of broth, ketone sticks, extra glucose monitoring supplies, needles and a syringe, if you are taking insulin.

Take your diabetes medication, even if you are not eating. If you are not sure, contact your physician for instructions, but don’t omit the medication on your own.

Try to eat normally, but if that’s not possible, eat and drink lightly and choose some carbohydrate-rich foods and drinks. Drink extra fluids like water and seltzer to stay hydrated. This will help keep blood sugar in range.

Test your blood sugar more often--at least every four hours. If blood sugar goes above 240 mg/dl, test your urine for ketones. Contact your physician if moderate or large ketones are present in your urine, or if your condition worsens.

Bladder Infections

Individuals with diabetes are at increased risk for getting urinary tract infections. One complication of diabetes can be the inability to fully empty your bladder when urinating. This “residual urine” can be a source of bacterial growth and cause a low grade,
chronic infection. To help avoid this problem, put a little pressure over your lower abdomen when you urinate to express all the urine. It is also important to stay adequately hydrated. Both women and men can have this problem. Men are at risk not only because of diabetes, but from prostate enlargement. If you think you could be having difficulty with “residual urine,” discuss it with your physician.

Other helpful hints to reduce risk of bladder infections are:

- Empty your bladder every few hours
- Wipe yourself from front to back to avoid fecal contamination
- Empty your bladder as soon as possible after intercourse
- Avoid tight-fitting underwear and jeans. Remove underwear for sleep to allow circulation of air.

Women with diabetes are at risk for vaginal yeast infections. A yeast infection will not only elevate blood glucose, it may make intercourse painful or difficult. Men may experience erectile dysfunction. While these issues may cause some embarrassment, they can often be successfully treated. Don't hesitate to discuss these problems with your health care provider. You may be referred to a gynecologist and/or urologist for help. Remember, they are also part of your “team”.

**Goal Setting**

Set a goal for handling times when you aren’t feeling well, such as:

- I will prepare my sick day box this week and let family members know how and when to use it.
HEALTHY COPING
At times, you may feel as though diabetes is in charge of your life. Dealing with diabetes can bring on feelings of sadness, anger, depression and denial. These feelings are not unusual but they can prevent you from taking the steps that can help you achieve better health.
How do you take charge of your diabetes?

- Learn as much as you can about diabetes and how to manage your day-to-day diabetes care.
- Establish a health care team with whom you are comfortable and can partner for success. Remember, it is your diabetes, so you have to be the leader of the team.
- Begin to identify the areas where you can improve your self-management skills.
- Identify the barriers you are experiencing in taking charge and set some small, achievable goals to begin to reduce those barriers.

REDUCING RISKS
IDENTIFICATION
Carrying identification can save precious time in the event of an emergency. It is best to have a medical alert bracelet or neck chain and pendant to identify your health problems. It is also a good idea to put emergency contact phone numbers in your cell phone under the initials ICE. This stands for “In Case of Emergency,” and emergency personnel are trained to look for it.

PREGNANCY
Before considering a pregnancy, it is recommended that blood glucose be tightly controlled for at least three months. Talk to your obstetrician about planning a pregnancy. An unplanned pregnancy can cause significant harm to both the mother and fetus if blood sugar has not been in good control.

SMOKING
In an earlier chapter (p.21) we discussed the formation of AGEs. In the presence of cigarette smoking, AGE production is increased four-fold. This dramatically increases the risk of heart attack, stroke, and blood vessel blockages.
If you smoke, quitting smoking is the single most important step you can take to improve your overall health. Quitting reduces your chances of a heart attack and other health problems.

If you still smoke, talk to your doctor about quitting. Nicotine is a highly addictive drug. You may need to try a variety of methods to quit smoking. It may take several attempts before you quit for good. Do not be discouraged if you have been unable to quit in the past. It is never too late to stop smoking. Most people have to try more than once before they quit for good.

PRODUCTS THAT MAY HELP YOU QUIT SMOKING:

- Nicotine replacement therapy
- Other medications, such as Bupropion (Zyban®) and Varenicline (Chantix®)

Before taking any medications, including over-the-counter nicotine replacements, discuss them with your doctor.

Support Groups

The more support you get the more likely that you will quit for good.

- Support groups can help smokers learn how to deal with cravings and withdrawal.

- The NYC Health and Hospitals Corporation offers free counseling and free medication at convenient locations throughout New York City.

For more information about these programs, call the City of New York at 311.
## FOR MORE INFORMATION

Diabetes-related Web sites that may be helpful in learning more about how to manage your diabetes

<table>
<thead>
<tr>
<th>Organization</th>
<th>Year</th>
<th>Description</th>
<th>Web Site</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American Diabetes Association (ADA)</strong></td>
<td>1997</td>
<td>The ADA provides information and other services to people with diabetes, their families, health care professionals and the public.</td>
<td><a href="http://www.diabetes.org">www.diabetes.org</a></td>
<td>ADA National Service Center, 1660 Duke Street, Alexandria, VA 22314, (703) 549-1500, (800) 232-3472</td>
</tr>
<tr>
<td><strong>American Association of Diabetes Educators (AADE)</strong></td>
<td>1997</td>
<td>The American Association of Diabetes Educators (AADE) is a multidisciplinary organization representing over 10,000 health care professionals who provide diabetes education and care. They strive to help people with diabetes live full and productive lives.</td>
<td><a href="http://www.aadenet.org">www.aadenet.org</a></td>
<td>444 N. Michigan Avenue, Suite 1240, Chicago, IL 60611, (312) 644-2233 or (800) 338-3633, (800) TEAMUP4 (Diabetes Educator Access Line)</td>
</tr>
<tr>
<td><strong>Centers for Disease Control, Diabetes Home Page</strong></td>
<td>1997</td>
<td>The National Center for Chronic Disease Prevention and Health Promotion features a diabetes area with news, statistics, research, educational information, state-based programs, and much more.</td>
<td><a href="http://www.cdc.gov/diabetes">www.cdc.gov/diabetes</a></td>
<td>TISB Mail Stop K-13, 4770 Buford Highway, NE, Atlanta, GA 30341-3724, (770) 488-5080</td>
</tr>
<tr>
<td><strong>National Institute of Diabetes &amp; Digestive &amp; Kidney Diseases (NIDDK)</strong></td>
<td>1997</td>
<td>The National Institute of Diabetes and Digestive and Kidney Diseases conducts and supports research on many of the most serious diseases affecting public health. The Institute supports much of the clinical research on the diseases of internal medicine and related subspecialty fields as well as many basic science disciplines. The website, part of the National Institutes of Health, features a great deal of information on diabetes, as well as an area for Diabetes Educators.</td>
<td><a href="http://www.niddk.nih.gov">www.niddk.nih.gov</a></td>
<td>Off. of Communications &amp; Public Liaison, NIDDK/NIH Building 31, Room 9A04, Center Drive, MSC 2560, Bethesda, MD 20892-2560</td>
</tr>
<tr>
<td><strong>Vision Deficit and Diabetes</strong></td>
<td>1997</td>
<td>Resources from the National Federation of the Blind—a support and information network for all diabetics, especially those who are blind or losing vision.</td>
<td><a href="http://www.nfb.org">www.nfb.org</a></td>
<td>National Federation of the Blind, 1800 Johnson Street, Baltimore, MD 21230, (410) 659-9314</td>
</tr>
</tbody>
</table>
International Diabetes Center
http://www.diabetes.ca/International Diabetes Center (IDC)
www.idcdiabetes.org
The Center is a leader in professional and patient education, and is one of the largest publishers of diabetes education materials.
3800 Park Nicollet Boulevard
Minneapolis, MN 55416
(888) 825-6315

Juvenile Diabetes Research Foundation (JDRF)
www.jdrf.org
The mission of the Juvenile Diabetes Research Foundation (JDRF) International is to find a cure for the disease within their children’s lifetime through the support of research.
432 Park Avenue South
New York, NY 10016-8013
(212) 785-9500
(800) 223-1138

National Diabetes Education Program
www.ndep.nih.gov
This federally sponsored initiative is designed to improve treatment and outcomes, to promote early diagnosis, and to prevent the onset of diabetes

National Diabetes Information Clearing House (NDIC)
1 Information Way
Bethesda, MD 20892-3560

VNSNY
www.vnsny.org
1-888- VNS-1-CALL or 1-888-867-1225
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New York, NY 10021

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