These Guidelines are promulgated by Sentara Health Plan (SHP) as recommendations for the clinical management of specific conditions. Clinical data in a particular case may necessitate or permit deviation from these guidelines. The SHP Guidelines are institutionally endorsed recommendations and are not intended as a substitute for clinical judgment.

### Guideline History

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<td>Review/Revise Dates</td>
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Live Better with Diabetes

Caring for Your Diabetes
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What is Diabetes?

Diabetes is a disease that causes high blood sugar. It is a lifelong disease that can be controlled. Diabetes often occurs along with high blood pressure and high cholesterol.

There are common signs and symptoms of high blood sugar. People may have some or none of these symptoms:

- Increased thirst
- Hunger
- A need to urinate often
- Sudden weight loss
- Blurred vision
- Weakness
- Numbness or tingling of hands or feet
- Slow healing cuts or sores
- Dry itchy skin
What are the Types of Diabetes?

**Type 2 Diabetes**

This is the most common type of diabetes. In type 2 diabetes the body is making insulin but not using it well. Risks for type 2 diabetes include:

- A parent, brother or sister with type 2 diabetes
- Being overweight
- High blood pressure
- Low HDL (the good cholesterol)
- High triglycerides
- Lack of Exercise
- Diagnosis of Pre-Diabetes
- Gestational diabetes or having a baby weighing more than 9 pounds
- Being African American, Latino, Native American, Asian American, Native Hawaiian and other Pacific Islander
- Over the age of 45

Healthy eating, regular exercise, managing your stress and checking blood sugar help with diabetes control. Medicine may be needed to treat type 2 diabetes.

**Type 1 Diabetes**

This is the least common type of diabetes and usually occurs in children and young adults. In type 1 diabetes the body does not make insulin.

- People with type 1 diabetes must take insulin shots every day.
How the Body Gets Energy

The body needs energy to work, just like a car needs gas to run. When we eat, some of the food breaks down into sugar (also called glucose). The body uses the sugar for energy.

The body needs insulin to help move sugar from the blood into the cells where it is used for energy. Insulin works like a key and unlocks the door to the cells letting the sugar inside.

When a person has diabetes there is not enough insulin or no insulin at all. Sugar builds up in the blood. Over time high blood sugar levels may harm the eyes, kidneys, nerves, blood vessels and heart.

Sometimes the cells are resistant to insulin. Then sugar cannot get inside the cells. This causes the blood sugar to rise above normal.
What are Carbohydrates?

“Carbohydrates” are starches and sugars that are found in many foods except meats and fats. Carbohydrates are the main source of energy for your body. After meals and snacks, the body turns carbohydrates into sugar. This sugar is used for energy.

Do not stop eating carbohydrate foods to lower your blood sugar. Diabetes will not go away if you stop eating carbohydrates.

However, eating too many carbohydrates may cause the blood sugar to rise to unsafe levels. Balancing carbohydrates is important in managing your blood sugar.
Counting Carbohydrates

Counting carbohydrates (Carbs) is a way to help plan the amount of starches and sugars you eat to better manage your diabetes.

Carbs affect your blood sugar more than protein or fat. Counting the number of carbs in food helps you manage your blood sugar.

How much you eat of one food is called a portion. Large portions of the foods listed contain large amounts of carbohydrates. Portion control is important in managing blood sugar.

Foods that contain carbs include:

- Grains – breads, cereals, tortillas, rice, pasta, snacks such as pretzels, chips and crackers
- All fruits and fruit juices
- Starchy vegetables – like potatoes, yams, corn, peas and dried beans
- Milk and yogurt
- Other - sweet drinks, candy, cookies and cakes
- Table sugar added to food or beverages
- Anything breaded or with batter
Carbohydrates and Portion Size

The following are foods and portion sizes that have 15 grams of carbohydrates in a serving.

### Starchy Vegetables
- Baked beans, 1/3 cup
- Beans, kidney/pinto 1/2 cup
- Corn, 1/2 cup
- Lima beans, 2/3 cup
- Peas, green 1/2 cup
- Potato, boiled 1/2 cup
- Potato, mashed 1/2 cup
- Squash, winter 1 cup
- Sweet potato, 1/2 cup

### Fruit/ Juice
- Apple, 1 small
- Applesauce, 1/2 cup
- Apple juice, 1/2 cup
- Banana, 1 small
- Blueberries, 3/4 cup
- Canned fruit, 1/2 cup
- Cranberry juice, 1/3 cup
- Fruit cocktail, 1/2 cup
- Grapefruit, 1/2 large
- Grapes, 17 small
- Grape juice, 1/3 cup
- Melon, 1 cup cubes
- Orange, 1 small
- Orange juice, 1/2 cup
- Peach, 1 medium
- Pear, 1/2 large
- Pineapple, 3/4 cup fresh
- Pineapple juice, 1/2 cup
- Prune juice, 1/3 cup
- Raisins, 2 Tbsp
- Raspberries, 1 cup
- Strawberries, 1 1/4 cup
- Tangerines, 2 small
- Watermelon, 1 1/4 cup cubes

### Cereals/Grains
- Bran cereal, 1/2 cup
- Cereal, plain 3/4 cup
- Grits, 1/2 cup cooked
- Oatmeal, 1/2 cup cooked
- Pasta, 1/3 cup cooked
- Popcorn, 3 cups
- Puffed cereal, 1 1/2 cup
- Rice, 1/3 cup cooked
- Sugar frosted cereal, 1/2 cup

Plan to eat 45-60 grams of carbohydrates each meal. Each meal can include 3 to 4 servings of the foods above.

Your healthcare provider can refer you to a dietitian for more help with your meal plan.
<table>
<thead>
<tr>
<th>Breads/Crackers</th>
<th>Milk Products</th>
<th>Sweets/Other Carbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bagel, one half small</td>
<td>Milk, any plain 1 cup</td>
<td>Brownie, 2” square plain</td>
</tr>
<tr>
<td>Biscuit, small</td>
<td>Evaporated milk, 1/2 cup</td>
<td>Cake, 2” square plain</td>
</tr>
<tr>
<td>Bread, one slice</td>
<td>Yogurt, plain 3/4 cup</td>
<td>Cookie, 2 small or 1 large</td>
</tr>
<tr>
<td>Corn bread, 2” cube</td>
<td></td>
<td>Fruit juice bars, 1 frozen</td>
</tr>
<tr>
<td>Dinner roll, small</td>
<td></td>
<td>Fruit snacks, 1 roll</td>
</tr>
<tr>
<td>English muffin, 1/2</td>
<td></td>
<td>Fruit spread, 1 Tbsp</td>
</tr>
<tr>
<td>Graham Crackers, 3 squares</td>
<td></td>
<td>Gelatin, regular 1/2 cup</td>
</tr>
<tr>
<td>Hamburger bun, 1/2</td>
<td></td>
<td>Gingersnaps, 3</td>
</tr>
<tr>
<td>Hot dog bun, 1/2</td>
<td></td>
<td>Honey, 1 Tbsp</td>
</tr>
<tr>
<td>Pancake, one 4”</td>
<td></td>
<td>Ice cream, 1/2 cup</td>
</tr>
<tr>
<td>Pita, 6” across</td>
<td></td>
<td>Jam/jelly, regular 1 Tbsp</td>
</tr>
<tr>
<td>Saltine crackers, 6</td>
<td></td>
<td>Milk, chocolate 1/2 cup</td>
</tr>
<tr>
<td>Snack chips, 15-20</td>
<td></td>
<td>Pasta sauce, 1/2 cup</td>
</tr>
<tr>
<td>Stuffing, bread 1/3 cup</td>
<td></td>
<td>Sherbert, sorbet 1/4 cup</td>
</tr>
<tr>
<td>Taco shell, 6” across</td>
<td></td>
<td>Sports drinks, 1 cup</td>
</tr>
<tr>
<td>Tortilla, 6” across</td>
<td></td>
<td>Sugar 1 Tbsp</td>
</tr>
<tr>
<td>Waffle, 4” square</td>
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<td></td>
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</tbody>
</table>

www.sentara.com
What is Protein?

It is important to have a balanced diet that includes protein. Protein is used to make and repair muscle and tissue in your body.

Foods high in protein include beef, pork, chicken, fish, eggs, dairy products, tofu, nuts and beans. Each of your meals should include 2 to 3 ounces of protein.

Tips for healthy meals:

• Select lean cuts of meat. When choosing lean cuts, remember to look for “loin” or “round” in the name. Choose grilled, baked, broiled, poached or steamed foods.

• Select skinless chicken or remove the skin before eating.

• Select 1% or fat free milk, yogurt and cheese.
What are Fats?

Fat is an important source of energy in your diet. It helps dissolve vitamins and cushions and protects vital organs. Fats from plant sources like vegetable oils, nuts and seeds are healthier choices.

Eating too many foods high in fat can cause obesity, leading to diabetes, heart disease and certain types of cancer.

Fried foods, shortening, butter and margarine, cheese, gravies and sauces, bacon, sausage, hot dogs and other fatty meats are high in fat. Choose low fat or fat free choices.
Choose A Healthy Meal Plan

Eating a variety of foods from all the food groups is the best way to keep your blood sugar in control. There is no such thing as a “diabetic diet.” Healthy meal planning is good for the whole family.

**CHOOSE MORE:**

- Fresh or frozen vegetables
- Fresh or frozen fruits
- Low fat or fat free milk
- Lean cuts of meat and fish
- Whole grains
- Vegetable oils: olive and canola oil, and nuts
Eat Less of These Foods

**LIMIT:**

**Bakery Items** – doughnuts, pastries, biscuits, and croissants.

**Beverages** – alcohol, regular soda, sweet tea, fruit juice, fruit punch and sports drinks.

**Condiments** – jam, jelly, syrup, honey, ketchup, sweet barbecue sauce, sweet pickles or relishes, fruit chutneys, cranberry sauce and creamy salad dressings.

**Dairy Products** – whole and 2% milk, and cheese, cottage cheese and ice cream made with whole or 2% milk.

**Fast Food items** – french fries, onion rings, nachos, milk shakes, hamburgers, and fried chicken.

**Sauces** – sugar, cream or cheese based.

**Snack Foods** – chips, cookies, candy, crackers, pretzels, sherbet, cakes and pies.
The plate method is a good way to help you plan a balanced meal and control portions. The plate method is easy using a 9 inch plate, and following 4 simple steps:

**Step 1** – Fill 1/2 of your plate with non-starchy vegetables such as green beans, broccoli, cauliflower, cabbage, carrots, greens and salads.

**Step 2** – Fill 1/4 of your plate with lean meat, fish, skinless chicken, eggs and low fat cheese.

**Step 3** – Fill the last 1/4 of your plate with starchy vegetables such as corn, potatoes, green peas; or other starchy foods such as cooked beans like pinto, black or navy; or whole grains such as rice, pasta, breads and tortillas.

**Step 4** – Add 1 serving of dairy and/or 1 serving of fruit

1 serving fruit = 1/2 cup canned fruit or one fresh piece of fruit the size of a tennis ball
1 serving dairy = 8 oz cup low fat milk or 6 oz container of light yogurt

A healthy breakfast may include 1 serving of fresh fruit, 1-2 servings of whole grain bread or cereal, and a lean protein such as egg or cottage cheese. Low fat milk may be added when eating cereal.
Reading a Food Label

Read food labels to see the serving size and number of carbohydrates in a serving. Using the food label to count carbs helps you manage your blood sugar.

**Note:** Label information is for the serving size listed not for the whole container.

**Step 1:** Look at the serving size.

**Step 2:** Look at the Total Carbohydrate per serving – it includes sugar, starch and fiber.

Remember, carbohydrates have the greatest effect on your blood sugar!
Exercising

Talk to your healthcare provider before beginning an exercise program.

Being active is a healthy start to managing your diabetes.

Moving more can help you have more energy and feel better.

If you are not exercising, start with 10 minutes every day. It can be as simple as walking 5 minutes from your door and turning around and walking back.

Start slowly. Only do what is comfortable for you.

Stop if you feel any discomfort, dizziness or have severe shortness of breath.
Checking Blood Sugar

What is blood sugar monitoring?
• It is using a drop of blood in a blood glucose meter to see how much sugar (glucose) is in the blood.
• It is keeping a written log book of your blood sugar numbers to share with your healthcare team.

Why is blood sugar monitoring important?
• It tells how food, exercise and medicine affect your blood sugar.
• If your blood sugar is too high or too low you can treat it. Rely on the numbers, not on how you feel.
• You and your healthcare team will use your blood sugar results to help you manage your diabetes.

What number should my blood sugar be?
Talk with your healthcare team to see if these “target” numbers are right for you.

<table>
<thead>
<tr>
<th>BLOOD SUGAR TARGETS</th>
<th>TARGET*</th>
<th>MY TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting/Pre Meal (before eating Meals)</td>
<td>70-130 mg/dl</td>
<td></td>
</tr>
<tr>
<td>Post Meal (1-2 hours after eating)</td>
<td>Less than 180 mg/dl</td>
<td></td>
</tr>
<tr>
<td>Before Going to Bed</td>
<td>100-140 mg/dl</td>
<td></td>
</tr>
<tr>
<td>Hgb A1C</td>
<td>Less than or equal to 7%</td>
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</table>

*Based on American Diabetes Association Guidelines, 2012
Checking Blood Sugar Continued

Talk with your healthcare provider or diabetes educator about the best times to check your blood sugar.

**Possible times to check your blood sugar:**
- First thing in the morning before eating or drinking
- Before a meal
- 2 hours after a meal
- At bedtime
- When feeling sick
- Before and after exercise
- When you think your blood sugar is too high or too low
What is Hemoglobin A1C?

Hemoglobin A1C is a test that tells the average blood sugar over the past 2 to 3 months. This test is used to determine how well your diabetes is being controlled. This test can be done in your healthcare provider’s office or lab. Results of this test are given in a percent (%). The test shows the amount of sugar that sticks to the red blood cells.

The more sugar there is in the blood, the more damage is done.

High blood sugar can harm your heart and blood vessels, kidneys, feet, eyes, and nerves.
The A1C and the estimated average glucose (eAG) is an average of blood sugar results for the past 2 to 3 months.

The A1C result is given in a percent (the left side) and the eAG result is given in a number (the right side) similar to what you will see on your blood glucose monitor.

For example an A1C of 7% equals an eAG of 154.

Ask your healthcare provider about your A1C.
How to Safely Dispose of Sharps

Sharps are needles, syringes and lancets. Used sharps must be stored safely and disposed of properly.

Safe storage and disposal of sharps protects family members and workers who handle trash and recyclables.

You can buy sharps containers at your local drugstore.

How to Store Used Sharps:

Do...
• Check with your City/State sanitation department about disposing sharps containers.
• Put used sharps in a safe sharps container.
• Change sharps container when a little more than half full.
• Carry an appropriate container with you when you travel.

Don’t...
• Don’t flush used sharps down the toilet or drop them into a sewer drain.
• Don’t clip, bend or put the cap back on used sharps.
• Don’t put loose used sharps or containers in with recyclables.
• Don’t put used sharps in containers that can be broken or punctured such as soda cans, milk cartons or coffee cans.
• Never reuse or share sharps.
Along with healthy eating, regular exercise, and managing your stress, you may need medicines to manage your blood sugar. These medicines may improve your blood sugar numbers and may lower the risk of damage to your heart, blood vessels, kidneys, nerves, eyes and feet.

- Take your medicines every day.
- Do not skip doses of your medicines, even if your blood sugar is in the target ranges.
- Use a pillbox to help you remember to take your medicine.
- Call your healthcare provider immediately if you are having side effects.
- Keep a current list of your medicines including how much you take and the time you take them.
- Take your medicine with you if you are going to be away from home.
- Find out how to get medical care when you are away from home.
Don’t Run Out of Your Medicines

Don’t let your medicine run out.

Call your healthcare provider for refills a week before you run out of your medicines.

Whenever possible, have all of your medicines filled from the same pharmacy. It is helpful to have one pharmacist review all of your medicines to avoid drug interactions that could be harmful to you.

If you are having trouble paying for your medicine, tell your healthcare provider.

Keep a list of the telephone numbers for your pharmacy and healthcare providers handy.
When a meal plan and exercise alone do not keep your blood sugar numbers in safe ranges, medicine may be added. Pills, shots that are not insulin, and/or insulin maybe the next step.

This drug works to lower the amount of sugar made by the liver: Metformin, (Glucophage (XR)).

This drug works on the muscle to make it more sensitive to insulin and help the body use sugar better: Pioglitazone (Actos).

These drugs work in the pancreas to make more insulin: Glyburide (Diabeta, Glynase and Micronase); Glimepiride (Amaryl); Glipizide (Glucotrol and Glucotrol XL); Nateglinide (Starlix); and Repaglinide (Prandin).

These drugs work in two places: helps the pancreas make more insulin after meals when blood sugar is high, and helps the liver to make less sugar: Sitagliptin (Januvia), Saxagliptin (Onglyza), and Linagliptin (Tradjenta).

Some of these medicines come in combination pills so they can target more than one organ in the body.
Common Diabetes Medicines: Insulin

People with type 1 diabetes must start using insulin as soon as they are diagnosed. People with type 2 diabetes may use insulin as soon as they are diagnosed or anytime they are hospitalized to help lower their blood sugar quickly and safely. As the pancreas begins to tire and wear out, it is common for people with type 2 diabetes to start taking insulin.

How insulin works in the body:

- Normally your body would make different amounts of insulin at different times. The pancreas makes small steady amounts between meals and overnight. This is called “basal” or “background” insulin.

- The pancreas makes larger amounts when you eat. This is called “bolus” or “mealtime” insulin.

- Together, both types of insulin work to manage your blood sugar.

You may need to take more than one type of insulin to get the same effect as the body’s natural basal and bolus insulin.
Types of Insulin

**Long Acting** – these are the basal insulins. These insulins are clear and cannot be mixed with any other insulin in the same syringe.
- Glargine (Lantus) – lasts for 24 hours
- Detemir (Levemir) – lasts for 6 to 24 hours

**Rapid Acting** – these are the bolus or meal insulins. These insulins are clear and they start to work within 15 to 30 minutes and last 2 to 6 hours.
- Lispro (Humalog)
- Aspart (Novolog)
- Glulisine (Apidra)

**Short Acting** – this may be used as bolus or meal insulin. This insulin is clear and starts to work within 30 to 60 minutes and lasts 5 to 8 hours.
- Regular (R)

**Intermediate Acting** – This insulin is cloudy in color and must be mixed before using by gently rolling in the palm of the hands. It starts working in 1 to 4 hours and lasts 10 to 24 hours.
- NPH (N)

There are also a variety of Pre-Mixed Insulins such as Humalog 75/25, Novolog 70/30 and Humalog 50/50. These are mixes of intermediate acting and short or rapid acting insulin.

Insulin is given into the skin by either a syringe and needle, or an insulin pen or an insulin pump.

**Insulin Tips:**
- Insulin works fastest when you give your shot in your stomach area – just avoid a 2-inch circle around your navel area.
- Store your opened insulin at room temperature, between 59 and 86 degrees. Unopened pens or vials should be stored in the refrigerator and are good until the expiration date.
- Check with your pharmacist as to how long your specific insulin pen or vial lasts once opened.
Other Diabetes Medicines:

Exenatide (Byetta, Bydureon) and Liraglutide (Victoza) are for people with type 2 diabetes and work in a number of ways:
- in the pancreas to make more insulin after meals
- to stop the liver from making sugar when you don’t need it
- in the brain to decrease appetite
- to slow down how fast food and sugar leave your stomach

Pramlintide (Symlin) is for people with type 1 or 2 diabetes and is used with insulin to lower high blood sugar after meals and works in a number of ways:
- tells the brain that you are full sooner
- slows down how fast food and sugar leave your stomach
- helps your liver send less sugar into the blood

These medicines are not insulin. They are not taken instead of insulin.
Medicine List

Take your current medicine list each time you go to your healthcare provider.

Be sure you tell your healthcare provider about any over-the-counter medicines, herbal medicines, or dietary supplements you are taking.

When your healthcare provider changes your medicines, ask for an updated medicine list before you leave your visit.

Do not stop taking your medicine – if you have side effects call your healthcare provider.

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of Medicine</th>
<th>Dose</th>
<th>How often do you take?</th>
<th>Taken for</th>
</tr>
</thead>
<tbody>
<tr>
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Questions about Medicines

When your healthcare provider gives you prescriptions for medicines ask the following questions.

1. How will this medicine help me manage my diabetes?
2. Is there a generic form of this medicine?
3. How should I take this medicine, for example, with food, before a meal, at bedtime?
4. What should I do if I miss a dose?
5. Are there any blood tests I need because of this medicine?
6. Are there any foods or other medicines I should not use when I am taking this?
7. Are there any side effects to this medicine that I should call you about? Does it cause low blood sugar?
8. How should I store this medicine?
What is Low Blood Sugar (Hypoglycemia)?

Hypoglycemia is blood sugar less than 70mg/dL. Insulin and some diabetes medicines may cause low blood sugar. Low blood sugar may happen very quickly and may cause accidents or injuries.

**Symptoms:**

- Fast Heart Rate
- Hungry
- Weak
- Headache
- Anxious
- Sweaty
- Dizzy
- Change in Vision
- Irritable
- Confusion

Always treat low blood sugar - it will not go away if untreated.
Low Blood Sugar

How do you prevent low blood sugar?
• Check your blood sugar to be aware of drops in blood sugar levels.
• Eat at regular times- don’t skip or delay meals.
• Take your medicines as directed.
• Check your blood sugar before you exercise.
• Always carry glucose tablets or a quick source of carbohydrates.

What are the causes of low blood sugar?
• Not enough food, skipping or delaying a meal.
• More exercise or activity than usual.
• Too much insulin or some diabetes medicines.
• Drinking alcohol without enough food.

Low Blood Sugar Prevention Tips:
• Always wear diabetes identification.
• Carry a cell phone.
• Share with others the signs and symptoms of low blood sugar and how to help you treat it.
Low Blood Sugar

How to treat Low Blood Sugar?

1. Check your blood sugar right away.

2. If it is less than 70 mg/dL follow “The Rule of 15/15”:
   - Take 15 grams of carbohydrates.
   - Wait 15 minutes, recheck your blood sugar, it should be 70mg/dL or above.

3. If blood sugar is below 70 mg/dL take another 15 grams of carbohydrates.

4. Wait 15 minutes, recheck your blood sugar (should be 70mg/dL or above)

5. After 2 treatments with carbohydrates, if blood sugar is still below 70mg/dL, call 911.

Examples of 15 grams of carbohydrates:

- 3-4 glucose tablets
- 1 tube of glucose gel
- 1/2 cup fruit juice (4 ozs)
- 1/2 can regular, not diet soda (4 ozs)
- 1 cup skim milk (8 ozs)
- 6 saltine crackers

Avoid chocolate, peanut butter or other foods with fat. They do not raise blood sugar quickly.
What is High Blood Sugar (Hyperglycemia)?

High blood sugar is a blood sugar over your target.

<table>
<thead>
<tr>
<th>BLOOD SUGAR TARGETS</th>
<th>TARGET*</th>
<th>MY TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting/Pre Meal</td>
<td>70-130 mg/dl</td>
<td></td>
</tr>
<tr>
<td>(before eating Meals)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Meal</td>
<td>Less than 180 mg/dl</td>
<td></td>
</tr>
<tr>
<td>(1-2 hours after eating)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before Going to Bed</td>
<td>100-140 mg/dl</td>
<td></td>
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</table>

*Based on American Diabetes Association Guidelines, 2012

How to prevent high blood sugar?

- Check your blood sugar to be aware of rises in blood sugar levels.
- Don’t overeat or drink sweet drinks. Eat at regular times.
- Take medicines as directed.
- Exercise regularly.
- Learn to manage the causes of your stress.
- Seek medical treatment for illnesses and infections.
- Follow your Sick Day Plan. (see page 39)

Share with others the signs and symptoms of high blood sugar and how they can help you prevent it.
Symptoms of High Blood Sugar

- Extreme thirst
- Blurred Vision
- A need to urinate often
- Tired, weak or dizzy
- Dry, itchy skin
- Upset stomach, vomiting
- Hungry
- Unexplained weight loss
- Tingling or burning in the feet
Causes and Treatment of High Blood Sugar

What are the causes of high blood sugar?

- Eating too much or drinking sweet drinks.
- Skipping diabetes medicines or not taking the correct doses.
- Some medicines can cause your blood sugars to rise. Check with your healthcare provider or pharmacist before taking new medicines.
- Not enough activity or exercise.
- Physical or emotional stress.
- Illness or infection.

How do you treat high blood sugar?

- Call your healthcare provider if you have a blood sugar higher than 240 two times in the same day and you don’t know why.
- Check blood sugar every 4 hours if your blood sugar is over 240 mg/dL and you don’t know why.
- Write your blood sugars down in a log book to talk about with your healthcare provider.
- Take your medicines as directed.
- Follow your meal plan.
- Drink plenty of water.
- People with type 1 diabetes should have their urine check for ketones.
Common Chronic Complications

- Stroke

- Heart Disease
  - Heart Attack
  - Heart Failure

- Increased Risk of Flu or Pneumonia

- Digestive Problems
  - Nausea
  - Poor Digestion
  - Bloating

- Sexual Problems
  - Erectile Dysfunction in men
  - Less interest in sex in women

- Kidney Disease (Nephropathy)
  - Leading to dialysis

- Eye Problems
  - Disorders of the Retina (Retinopathy)
  - Blindness

- Sleep Apnea

- Gum Disease

- Depression

- Nerve Damage (Neuropathy)
  - to any of the nerves in the body

- Blood Vessel Disease
  - to any of the blood vessels in the body

- Foot or Leg Amputations

- Skin Problems and Infections
Foot and Skin Care

Diabetes is the leading cause of toe, foot or leg amputations. Remember to always wear proper foot wear and do not go bare foot. See your healthcare provider immediately if you have numbness, tingling or signs of infection (swelling, heat, redness, drainage).

To help keep your feet healthy check feet and skin every day for:

- ✔ Cuts
- ✔ Bruises
- ✔ Calluses
- ✔ Blisters
- ✔ Swelling
- ✔ Redness
- ✔ Change in color
- ✔ Drainage
- ✔ Pain
- ✔ Change from previous day

- Avoid tobacco use.
- Exercise regularly.
- Cut toenails straight across to avoid ingrown toenails.
- Put lotion on top and bottom of feet to avoid dry, cracked skin. Avoid lotion between toes - this area needs to stay dry.
- Avoid treating yourself with sharp items such as razors, scissors or blades.
- Avoid treating your foot or skin problems with over the counter medicines.
- Avoid use of hot tubs, heating pads, hot water bottles or electric blankets.
- Wear shoes, hose or socks that are not too tight.
- Make sure shoes fit well and are in good shape. Feel the inside to make sure there are no objects or sharp areas inside your shoe.
- Take your socks and shoes off each time you visit your healthcare provider to remind him/her to check your feet.
Living with diabetes is stressful. It takes time to adopt a healthy lifestyle that keeps your blood sugar within a healthy range. Stress can increase your blood sugar. Focus on doing the things that are most important to you.

Here are some ideas:

• Start today. Find ways to change, accept or avoid stressful situations.
• Move your body. Regular exercise is a natural stress reliever and helps to lower blood sugar.
• Have more fun. Make time to do things you enjoy.
• Take time to relax. Deep breathing can help release tension.
• Be kind to yourself. Let go of what you did yesterday.
Stress and Depression

Having diabetes may make you feel sad, angry or you may deny that you have the disease. Give yourself time to learn about managing your disease.

Depression is a serious problem but it can be treated. Some signs of depression that you may have are

• Trouble sleeping or eating
• Feelings of deep sadness that disrupts your daily routine.

If you have these signs, don’t wait to get help. Talk to your healthcare provider.
Creating a Sick-Day Plan

What happens when you are sick?
Sickness is a stressor. Any sickness may cause the blood sugar to rise, so keep taking your diabetes medicines.

Have a Sick-Day Plan
Work with your healthcare team to make a Sick-Day Plan before you get sick. Include in your plan:

- What medicines you should or should not take?
- How often to check your blood sugar?
- What foods and fluids to keep on hand?

When you are sick it is sometimes hard to stick with your regular meal plan. Foods you can use for your Sick-Day Plan:

- 6 saltines
- 5 vanilla wafers
- 4 Lifesavers
- 3 graham crackers
- 1 slice dry toast (not light bread)
- 1/2 cup cooked cereal
- 1/3 cup frozen yogurt
- 1/2 cup regular ice cream
- 1/2 cup sugar-free pudding
- 1/2 cup regular (not sugar-free) Jell-O
- 1/2 cup custard
- 1/2 cup mashed potatoes
- 1/4 cup sherbet
- 1/4 cup regular pudding
- 1 double-stick popsicle
- 1 cup Gatorade
- 1 cup milk
- 1 cup soup
- 1/2 cup fruit juice
- 1/2 cup regular soft drink (not
Sick– Day Plan

When to call your healthcare provider:
• You’ve been sick or had a fever and aren’t getting better.
• You’ve been vomiting or having diarrhea for more than 6 hours.
• Your sugar levels are higher than 240 (or the number your doctor told you to use) and you don’t know why.
• You are unsure what to do to take care of yourself.

What to tell the healthcare provider when you call:
• Your last 3 blood sugars.
• Your last temperature and when you took it.
• What you ate or drank.
• What medicines you have or have not taken (don’t forget over-the-counter medicine or any herbal supplements).
• How much vomiting and/or diarrhea.
If You Go to the Hospital

Make sure you tell all hospital staff that you have diabetes.

Bring a current list of all your medicines including doses.

Often oral diabetes medicines (pills) cannot be used while you are in the hospital.

If your doctor admits you to the hospital this causes stress which causes your blood sugar to rise.

These rises in blood sugar are often better managed with insulin – even if you were not on insulin at home.

Being on insulin for a short time doesn’t change the type of diabetes you have. It just means your healthcare team needs to manage your diabetes differently during the hospital stay.

Insulin is the safest way to lower blood sugar.

You may be discharged from the hospital with little or no change in your usual medicine routine.
Did you check your blood sugar and write down the numbers in your log book?

Did you take your medicines as directed?

Did you eat balanced meals throughout the day?

Did you exercise?

Did you check your feet for numbness, tingling, or change in appearance (blisters, redness, and sores not healing)?

Did you brush and floss your teeth or clean your gums?

Are you feeling stressed?
Things You Can Do to Live Well with Diabetes

Talk with your healthcare provider about a referral for more Diabetes Education.

- Eat less sugar, starch and fat.
- Exercise regularly.
- Control your weight.
- Take your medicines each day.
- Check your blood sugar.
- Get regular diabetes wellness checks.
- Don’t smoke.
- See your dentist regularly.
Questions to Ask Your Healthcare Provider

When you visit your healthcare provider there are many questions you need to ask. For example:

1. What was my last A1C? What should my A1C be?
2. How often and when should I check my blood sugar?
3. What are my target blood sugar numbers?
4. What’s the highest and lowest my blood sugar should be before calling?
5. What changes can we make to reach my blood sugar goals?
6. What is my blood pressure? What are my target blood pressure goals?
7. When was my last test for protein in the urine (microalbuminuria)? What are the results of my microalbuminuria test?
8. Do I need any changes in my blood pressure medicine to reach my blood pressure goal and help protect my kidneys?
9. What are my cholesterol and triglyceride levels? What should my HDL, LDL, total cholesterol and triglycerides be?
10. Do I need any changes in my cholesterol medicine to reach my goal?
11. How often do I need a dilated eye exam? Should I have a referral to an Ophthalmologist or Optometrist?
12. What should I do to take care of my feet? Should I have a referral to a Podiatrist?
13. When should I see you next?

Think of ABC as 3 ways to measure your health:

A is your A1C
B is your Blood Pressure
C is your Cholesterol
Diabetes Patient Education Checklist

☐ I have received Diabetes education.

☐ I have a clear explanation of my diagnosis of diabetes.

☐ I have reviewed my medicines and know when and how to take them.

☐ I understand I need to check my blood sugar, write it down in my log book and share the results with my healthcare provider.

☐ I understand I need to eat balanced meals throughout the day.

☐ I know which foods are carbohydrates and understand how they affect my blood sugar.

☐ I know how to read a food label.

☐ I know I need to check my feet and skin every day.

☐ I know I need to brush and floss my teeth or clean my gums every day.

☐ I have a Sick-Day Plan.

☐ I will be more active every day.

☐ I am going to relax more and do things to reduce stress.

☐ I know what tests I need during the year.

☐ I will schedule and attend regular visits with my healthcare providers.

☐ I will ask questions when I visit my healthcare providers.
Know Your Diabetes Goals

- Check your blood sugar and write down the numbers in your log book
- Take your medicines as directed
- Eat balanced meals throughout the day
- Exercise
- Check your feet for numbness, tingling, or change in appearance (blisters, redness, sores not healing)
- Brush and floss your teeth or clean your gums
- Check your stress level

<table>
<thead>
<tr>
<th>TEST</th>
<th>HOW OFTEN</th>
<th>GOAL</th>
</tr>
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<tbody>
<tr>
<td>A1C</td>
<td>Every 6 months or 4 times yearly if not at target</td>
<td>Less than or equal to 7%</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>Every Office Visit</td>
<td>130/80</td>
</tr>
<tr>
<td>Total Cholesterol</td>
<td>Every Year</td>
<td>Less than 200</td>
</tr>
<tr>
<td>LDL (Bad Cholesterol)</td>
<td>Every Year</td>
<td>Less than 70 for highest risk Less 100 for high risk</td>
</tr>
<tr>
<td>HDL (Good Cholesterol)</td>
<td>Every Year</td>
<td>More than 40 for Men More than 50 for Women</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>Every Year</td>
<td>Less than 150</td>
</tr>
<tr>
<td>Dilated Eye Exam</td>
<td>Every Year</td>
<td>Find Eye Problems Early</td>
</tr>
<tr>
<td>Serum Creatinine Urine Micro Albumin</td>
<td>Every Year</td>
<td>Find Kidney Problems Early</td>
</tr>
<tr>
<td>Foot Exam</td>
<td>Every Office Visit</td>
<td>Find Nerve and Blood Vessel Problems Early</td>
</tr>
<tr>
<td>Flu Vaccine</td>
<td>Every Year for patients older than 6 months</td>
<td>Prevent Flu</td>
</tr>
<tr>
<td>Pneumonia Vaccine</td>
<td>Get the Pneumonia Vaccine at the time of your diagnosis and check with your healthcare provider for additional vaccinations</td>
<td>Prevent Pneumonia</td>
</tr>
<tr>
<td>Dental Exam</td>
<td>Once every six months</td>
<td>Prevent Gum Disease and Cavities</td>
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More Information

If you would like more information about staying healthy with diabetes, use these sites for reliable information:

Sentara Healthcare
http://www.sentara.com/Services/Diabetes
1-800-SENTARA (1-800-736-8272)

American Diabetes Association
http://www.diabetes.org/

National Diabetes Education Program
http://ndep.nih.gov/i-have-diabetes/index.aspx

References:
