



# Living With Diabetes: Your Guide to Better Control



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# Living With Diabetes: Your Guide to Better Control

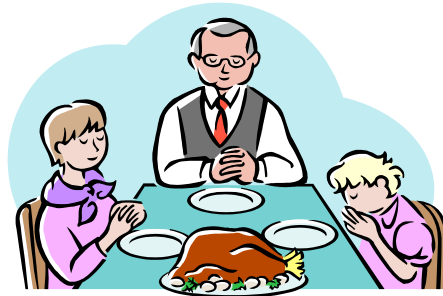
## Table of Contents

Chapter	Page Number
<b>Chapter One: Basic Facts About Diabetes</b> Diabetes Facts; What happens when you have diabetes; Type 1 and 2: Causes and Symptoms	<b>1</b>
<b>Chapter Two: Blood Sugar Goals</b> ADA and ACE guidelines; Home glucose checking; Hgb A1C	<b>4</b>
<b>Chapter Three: High Blood Sugar</b> Causes; Symptoms; Treatment of Hyperglycemia; Ketoacidosis; Hyperosmolar Coma	<b>6</b>
<b>Chapter Four: Low Blood Sugar</b> Causes of hypoglycemia; Symptoms; Prevention; Glucagon; Treatment of hypoglycemia	<b>9</b>
<b>Chapter Five: Common Diabetes Medications</b> Oral Diabetes Medications; injectable diabetes medications; Insulin	<b>12</b>
<b>Chapter Six: Exercise</b> Benefits of exercise; Before you begin; Exercise recommendations; Exercise precautions	<b>16</b>
<b>Chapter Seven: Possible Long-term Complications</b> Eye problems; Kidney problems; Nerve damage; Frequent Infections; Heart Attack or Stroke	<b>20</b>
<b>Chapter Eight: General Healthcare</b> Eye care; Dental care; Foot care; Skin care	<b>23</b>
<b>Chapter Nine: Sick Day Management</b> Sick day rules; When to call the doctor; Sick day foods	<b>26</b>
<b>Chapter Ten: Living with Diabetes</b> Stress and Coping; Work; Medical Identification; Traveling with Diabetes; Pregnancy; Menstruation and Menopause; Diabetes Education	<b>28</b>
<b>Diabetes Standards of Care</b>	<b>31</b>
<b>Diabetes Check-list</b>	<b>32</b>
<b>Resources:</b> List of web-sites; Diabetes magazines; Diabetes books	<b>33</b>
<b>Appendices:</b> Appendix A: Checking Your Blood Sugar; Blood Glucose Flow Sheet	<b>35</b>
Appendix B: Support	<b>38</b>
Appendix C: Emergency Preparedness	<b>39</b>



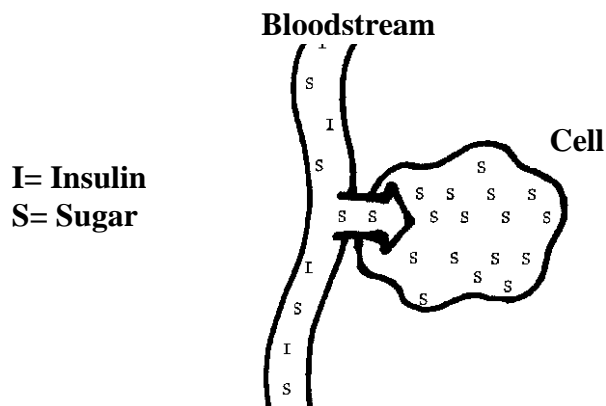
# Chapter 1: Basic Facts About Diabetes

- **Common** - There are 37.3 million people in the United States with diabetes today. That is 11% of the general population and 29% of those who are age 65+. Another 96 million Americans have prediabetes. It is projected by the year 2050, that 1 in 3 Americans will develop diabetes.
- **Controllable** - Currently, there is no cure for diabetes. However, it can be managed well with good meal planning, regular exercise, monitoring your sugars and medication if prescribed.
- **Life-long** – Diabetes doesn't go away once you have it. Even when you get your blood sugar under good control, you still have diabetes and must continue to work at managing it every day.
- **Self-managed** – Your health care team will guide you and support you in what you do but diabetes control depends on you and the choices you make every day.



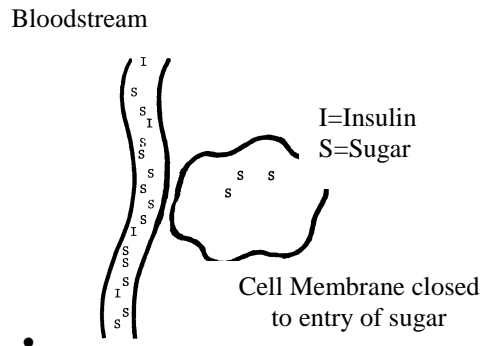
## What Happens When You Eat

- 1) The carbohydrate foods that you eat break down into sugar or glucose.
- 2) That sugar enters your blood stream and the sugar level in your blood starts to rise.
- 3) As the sugar level rises, your brain signals the pancreas to make insulin.
- 4) The insulin is released into the blood stream. Its job is to open up the body's cells to allow the sugar to go inside where it can be turned into energy.
- 5) The level of sugar in the blood stream falls as the sugar is allowed to go into the cells.



## What Happens When You Have Diabetes

- Your pancreas makes little or no insulin OR the insulin you make is not working the way it should. Either way, the sugar cannot enter the body's cells.
- Sugar builds up in the blood stream, raising the amount of sugar to abnormally high levels.
- Without sugar in your cells, your body cannot get the fuel it needs and your body lacks energy.
- High blood sugars can damage your body over time.



### **Type 1 Diabetes**

People with Type 1 Diabetes make little or NO insulin. People with this type of diabetes must take insulin shots to live. 10% of people with diabetes have this type.

#### Causes of Type 1 Diabetes

- There may be a family history.
- A virus may injure the pancreas, reducing its ability to make insulin.
- The body's immune system mistakenly destroys the insulin producing cells in the pancreas.

### **Type 2 Diabetes**

Most of the people with diabetes have Type 2 diabetes. Your body still makes some insulin, but is unable to correctly use it. Eventually, the body will not make enough insulin. Type 2 diabetes is treated with diet, exercise and usually medication.

#### Causes/Risk Factors for Type 2 Diabetes

- ◆ Family history of diabetes
- ◆ Overweight
- ◆ Specific Ethnic groups
- ◆ Had diabetes during pregnancy
- ◆ Have high blood pressure
- ◆ Have high cholesterol
- ◆ Sedentary lifestyle
- ◆ Over 40 years of age



## **Reasons to Keep Your Blood Sugars under Good Control**

- Maintaining a near normal blood sugar level may help protect you from the long-term complications of diabetes.
- Feel better
- Have more energy
- Controlling your diabetes will keep it from controlling you.

**Why do you want to control your blood sugar?** \_\_\_\_\_

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## **Plan to control blood sugar and prevent complications:**

1. Reduce the amount of carbohydrates you eat.
2. Include some exercise most days of the week.
3. Take medication as directed.
4. Check blood sugar as recommended. Share results with your doctor at appointments, so he/she can make medication changes as needed to get your blood sugars in target range.
5. Discuss problems you may have with taking your medicine, checking your sugar, exercise, or what you eat with your doctor or diabetes educator so you can work together to control your blood sugar.

**Which area do you have the most trouble with?** \_\_\_\_\_

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## Chapter 2: Blood Sugar Goals

One of the main goals of treating diabetes is keeping the blood sugar levels as close to normal as possible. People without diabetes normally have blood sugar levels less than 100 mg/dl.

Test	Blood Sugar Level for People without Diabetes	Blood Sugar Goal for People with Diabetes	
		ADA*	ACE**
Fasting Blood Sugar	<100 mg/dL	80-130 mg/dL	<110mg/dl
Blood Sugar 2 hours After Meals	<110 mg/dL	<180 mg/dL	<140mg/dl
A1C	<5.7%	<7%	<6.5%

\*American Diabetes Association

\*\*American College of Endocrinology

These general guidelines apply to many people, but not to everyone. Your blood sugar goals may be higher or lower than these numbers for your own personal health. Talk to your doctor about what target blood sugar range is right for you.

*There are 2 ways to find out if you are meeting your goals and your diabetes is in good control.*

### 1. Check your own blood sugar at home.

- Work with your doctor or diabetes educator to learn how to use a blood sugar meter that is right for you. Get a prescription for your testing supplies.
- Ask what your testing schedule should be. You may be asked to check before meals, 2 hours after meals or at bedtime.
- Keep track of your results and take them with you to your doctor visits. Look at the readings yourself to see if you note any trends that may indicate a need to make changes in your diet, exercise plan or medication.
- Every reading you take won't match your goals exactly. Your doctor will tell you what to do if the readings are too far from your goals or you are not meeting those goals often enough.

## 2. Have a glycosylated hemoglobin test (Hgb A1C)

- This lab test is done in the doctor's office.
- It shows your average blood sugar over the past 2-3 month period.
- Depending on your treatment plan and level of control, the doctor may run this test every 3-6 months.

<b>A1c</b>	<b>eAG (Average Glucose) mg/dl</b>
6%	126 mg/dL (100-152)
7%	154 mg/dL (123-185)
8%	183 mg/dL (147-217)
9%	212 mg/dL (170-249)
10%	240 mg/dL (193-282)
11%	269 mg/dL (217-314)
12%	298 mg/dL (240-347)

(Adapted from American Diabetes Association 2010 guidelines)

**My Hgb A1C** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Goal Hgb A1C:** \_\_\_\_\_

## Chapter 3: High Blood Sugar (Hyperglycemia)

High blood sugar is any number above your target blood sugar range, which for many people is 80 - 130 before meals and less than 140 after meals. This happens to everyone with diabetes at certain times. However, if it is occurring often, it needs attention.

### What causes high blood sugar?

- Food (eating too much carbohydrate)
- Emotional stress
- Illness
- Pain
- Not taking enough diabetes medicine
- Your liver dumping extra sugar into the bloodstream
- Some medications may increase your blood sugar- discuss them with your doctor or pharmacist when being prescribed a new medication or before buying an over-the-counter medication.

### Symptoms of high blood sugar

You may not always notice the signs of high blood sugar. You may think you feel fine, even though your blood sugar is high. When symptoms of hyperglycemia are present, they may be so mild or come on so slowly you don't even notice them. This is why it is so important to test your blood sugar regularly.

Symptoms include:

- Unusual tiredness or sleepiness
- Increased thirst
- Increased hunger
- Frequent urination, especially at night
- Blurred vision
- Dry mouth
- Dry or itchy skin
- Slow healing cuts and sores
- Numbness or tingling of feet or hands
- Frequent infections (urinary tract, vaginal, skin, etc)
- May notice unusual weight loss with Type 1 Diabetes

What symptoms do you have when your blood sugar is high? \_\_\_\_\_

## How to Treat High blood sugar

High blood sugars (hyperglycemia) should always be treated because it can lead to long-term complications.

If your blood sugar is high:

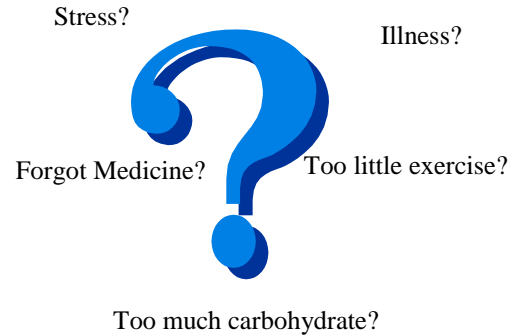
1. Drink plenty of decaffeinated, sugar free fluids to keep yourself hydrated.
2. Exercise, when appropriate
3. Ask yourself what may have caused the high blood sugar and take action to correct it. Remember pain is a source of stress.



**Drink Water**



**Exercise**



### **Ketoacidosis**

Ketoacidosis is a serious condition that usually occurs only in people with type 1 diabetes. When your body does not make enough insulin, it cannot use sugar as fuel, even though your blood sugar level may be high. Instead, your body starts to burn fat for fuel, and ketones are produced as a result. As ketone levels rise in the bloodstream, they cause a serious illness called ketoacidosis. When your blood sugar is above 250 mg/dl, you should check for ketones.

Ketoacidosis can develop very quickly, especially when you're sick with a cold, flu or any other kind of infection, or during periods of severe stress. This is why it is so important to check your blood sugar and urine ketones more frequently when you are sick.

### **Symptoms of ketoacidosis**

- extreme thirst
- stomach pain
- flushed skin
- breathing is fast and deep
- fever
- have a fruity odor to your breath
- nausea and vomiting

**Treatment:**

Call your doctor immediately if you are ill **and** have ketones. This is not a condition you should try to treat yourself. Your doctor will tell you what to do. If you are unable to reach your doctor, go to the nearest emergency room right away.

**Hyperosmolar Coma**

This is a result of extremely high blood sugars, usually greater than 600-800 mg/dl. It can happen when a person with type 2 diabetes is under major stress, for instance from an infection. There is usually a slow onset (days to weeks). The elderly (> 60 years of age) are at higher risk of hyperosmolar coma.

Four primary features:

- Severe high blood sugar: typically 1000 to 2000 mg/dl.
- Absence of ketones
- Profound dehydration: impaired ability to discern thirst
- Change in mental status: may mimic stroke



## Chapter 4: Low Blood Sugar (Hypoglycemia)

When you take insulin or other diabetes medication, it is possible for your blood sugar to drop too low (**below 70 mg/dl**). Low blood sugar is called hypoglycemia. Hypoglycemia is usually easy to treat, but must be treated quickly to prevent serious reactions. If untreated, it can lead to seizures or passing out.

### What causes low blood sugar?

- getting more exercise than usual
- taking too much diabetes medication or insulin
- eating at the wrong time for the medication you take
- skipping meals and snacks
- delayed meals or eating less than usual
- drinking alcoholic beverages

Skipping or delaying meals can cause hypoglycemia in people who take sulfonylureas, meglitinides or insulin. These drugs increase the amount of insulin in your body. It is important to eat on time when you take these medications. Discuss the use of alcohol with your physician. Alcohol should not be used when taking certain medications. Alcohol can cause low blood sugar if taken on an empty stomach. It is important to always eat something when you drink alcohol.

### Symptoms of low blood sugar

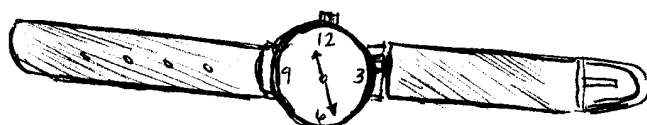
- weakness, dizziness, light-headed feeling
- hunger
- trembling and nervousness
- headache
- cold, clammy, sweaty and moist skin
- double vision
- fatigue
- uncoordinated movements
- ill-tempered
- fast heart beat
- unexpected behavior changes
- confusion, unable to think clearly

**\*\*If you have any of these symptoms, test your blood sugar right away.\*\***

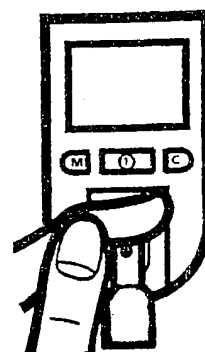
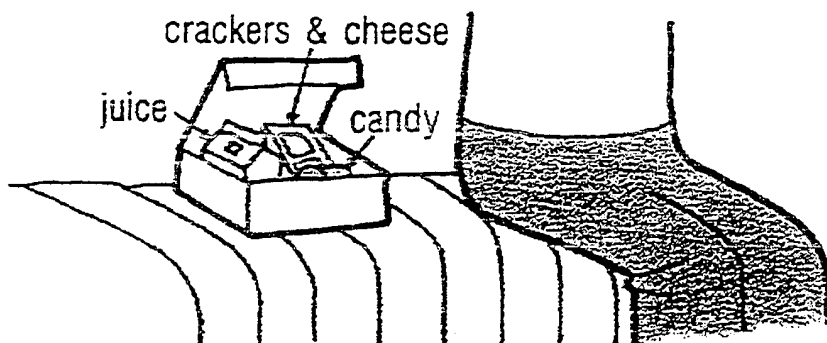
**What symptoms do you have when your blood sugar is low?** \_\_\_\_\_

## How to prevent low blood sugar (hypoglycemia)

- Eat your meals on time
- Don't skip meals or snacks
- Carry snacks with you
- Know when your insulin is peaking
- Learn to adjust your food and diabetes medicine for exercise
- Test your blood sugar when you feel symptoms of low blood sugar
- Treat immediately
- Educate family members, friends or coworkers on symptoms and treatment for low blood sugar
- Record low blood sugar reactions and discuss with your health care team so they can see patterns that are causing your reactions and help you prevent them



Eat on a Schedule



## **Severe Low Blood Sugar and Glucagon**

If your blood sugar gets so low that you pass out or can't swallow, you will need a glucagon shot. If you take insulin, your family, friends, coworkers and exercise partners should learn how to give you a shot of glucagon. Glucagon is a drug that will raise your blood sugar. Ask your doctor about glucagon, because you will need a prescription for it. *\*\*There is a new Nasal glucagon called Baqsimi available now\*\**



## How to Treat Low Blood Sugar (Hypoglycemia)

It is important to treat low blood sugar right away. It will not improve on its own.

**If blood sugar is below 70 mg/dl, treat with 15 grams fast acting carbohydrate as listed below:**

**Step 1: Treat with one of the following:**

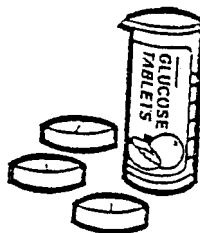
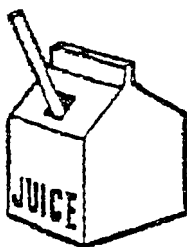
- 3-4 glucose tablets
- 1 tube of glucose gel
- 1 Tbsp. honey or sugar
- ½ cup juice
- ½ can of regular soda
- 3-4 hard candies (not sugar free)
- 3 to 4 pieces of soft peppermint candy
- 

**If blood sugar is below 50 mg/dl, double the treatment**

**Step 2: Wait 15 minutes, then check your blood sugar again.**

- If your sugar is still below 70 mg/dl, eat/drink another item from the above list.
- If blood sugar is still low, call your doctor's office
- If blood sugar is above 70 mg/dl, but it will be more than an hour before your next meal, eat a snack containing protein (½ meat sandwich, cheese and crackers or peanut butter crackers)

**Step 3:** Be sure to eat your next meal on time.



**Note:** If you take glyset or precose, you must treat with glucose tablets or milk.

**How will you treat a low blood sugar?** \_\_\_\_\_

## Chapter 5 – Common Diabetes Medications

Class	Trade Name	Generic Name	How it Works	Side Effects and Special Considerations
Sulfonylureas	Glynase	Glyburide	Causes the pancreas to make more insulin	Low blood sugar Do not skip meals.  *Take Glipizide within 30 minutes before meals
	Glucotrol	Glipizide*		
	Glucotrol XL	Extended release glipizide		
	Amaryl	Glimepiride		
Biguanides	Glucophage	Metformin	Prevents the liver from releasing too much glucose and helps the body make better use of insulin	Nausea and vomiting but subsides within a few weeks; <u>Take with food to improve tolerance</u> ; Dose adjusted in kidney disease. Possible effect on B12 levels. <b>SEE NOTE BELOW</b>
	Glucophage XR	Extended release Metformin		
	Glumetza	Metformin ER		
	Riomet	Liquid Metformin		
Thiazolidinediones (TZD's)	Actos	Pioglitazone	Helps the body make better use of insulin; Takes 4-6 weeks to see maximum effect	May cause swelling in the ankles; Monitor with liver function tests. Caution in heart failure.
DPP-4 Inhibitor	Januvia	Sitagliptin	Increases incretin hormone levels, thus increasing insulin release	Upper respiratory infection, stuffy or runny nose, sore throat, headaches
	Tradjenta	Linagliptin		
	Onglyza	Saxagliptin		
	Nesina	Alogliptin		
SGLT2 Inhibitor	Invokana *	Canagliflozin	Increases urinary glucose excretion	Genital yeast infections, UTIs, increased urination, dizziness when standing. Hydrate well with water. *reduces risk of CV death/heart failure or preserves kidney function*
	Farxiga*	Dapagliflozin		
	Jardiance*	Empagliflozin		
	Steglatro Brenzavvy	Ertugliflozin Bexagliflozin		
Combination Medication	Glucovance	Metformin + Glyburide	See above actions for each drug in the combination.	See above side effects and special considerations for each drug.
	Kombiglyze XR	Saxagliptin + Metformin		
	Actos plus Met	Metformin + Pioglitazone		
	Metaglip	Metformin + Glipizide		
	Janumet	Metformin + Sitagliptin		
	Jentadueto	Metformin + Linagliptin		
	Kazano	Metformin + Alogliptin		
	Invokamet	Metformin + Canagliflozin		
	Xigduo XR	Metformin + Dapagliflozin		
	Synjardy	Metformin + Empagliflozin		
	Glyxambi	Empagliflozin + Linagliptin		
	Steglujan	Ertugliflozin + Sitagliptin		

**Consult your MD for instructions regarding Metformin before having an IV dye test/procedure**

## Other Diabetes Medications

Injectable/oral GLP-1 and GIP medications available. These medications are **NOT** insulin, but they do work with insulin to give people with diabetes more stable blood sugar levels.

These medications are only for patients with Type 2 Diabetes:

- ◆ **Victoza (liraglutide):** should be injected once daily with or without food
  - ◆ **Byetta (exenatide):** should be injected twice daily, within 60 minutes before the morning and evening meals. Other oral medications such as contraceptives and/or antibiotics should be taken 1 hour prior to Byetta for greater effectiveness.
  - ◆ **Bydureon (exenatide extended-release)**
  - ◆ **Ozempic (semaglutide)**
  - ◆ **Trulicity (dulaglutide)**
  - ◆ **Mounjaro (tirzepatide)**
  - **Dual GLP1 – GIP receptor agonist**
- should be injected once weekly, at any time of day, with or without food.

- ◆ **Rybelsus (semaglutide)** –taken orally by mouth once daily

Take on an empty stomach upon awakening- Take with 4 oz water or less-wait 30 min. before eating, drinking or taking other oral meds. Eat within 30-60 minutes.

These medicines help to improve elevated blood glucose levels in several ways:

- Insulin production: During meals, signals the pancreas to make the right amount of insulin at the right time. This helps to lower the blood glucose to normal levels.
- Sugar production: Helps prevent the liver from making too much sugar, especially after meals. This helps you avoid high blood sugar levels.
- Food breakdown: Also helps slow down the rate at which food leaves the stomach, so it slows sugar entering the bloodstream. Reduces your appetite, the amount of food you eat, and your weight.
- When used with a sulfonylurea or insulin, low blood sugar is possible.
- Common side effects include nausea, vomiting, and diarrhea. Nausea is most common when first starting or after a dose increase, but decreases over time in most patients. Small frequent meals are better tolerated than large meals.

Victoza, Ozempic, and Trulicity have been shown to significantly reduce the risk of cardiovascular death, heart attack, and stroke.

## Insulin Combination Therapy

- ◆ **Soliqua 100/33:** Lantus + Adlyxin (lixisenatide) can be dosed 15-60 units daily- Take each morning within 1 hour of breakfast
- ◆ **Xultophy 100/3.6:** Tresiba + Victoza (liraglutide) can be dosed 10-50 units daily

# Insulin Action Chart

Insulin Type	Starts Working (onset)	Working the Hardest (peak)	How Long It Lasts (duration)	Color of Insulin	# of days opened insulin is good
<b>Rapid-Acting (Bolus-given 0-15 minutes before meals to reduce high blood sugars)</b>					
Humalog (Lispro) Admelog	5 - 15 minutes	20 - 90 minutes	3 to 4 hours	Clear	28 days
Novolog (Aspart)	10 - 20 minutes	1 - 3 hours	3 to 5 hours	Clear	28 days
Apidra (Glulisine)	5 - 15 minutes	55 minutes	3 to 4 hours	Clear	28 days
Fiasp (Aspart)	2.5 - 4minutes	1.5- 2 hours	3 to 5 hours	Clear	28 days
<b>Regular Short-Acting (Bolus given 30 minutes before meals to prevent high blood sugars)</b>					
Humulin R vial	30 - 60 minutes	2 to 3 hours	4 to 6 hours	Clear	31 days
Novolin R vial	30 minutes	2.5 to 5 hours	8 hours	Clear	42 days
<b>Intermediate Acting -(NPH)</b>					
Humulin N	2 - 4 hours	4 to 10 hours	14 to 18 hours	Cloudy	28 days (vial) 14 days (pen)
Novolin N	90 minutes	4 to 12 hours	Up to 24 hours	Cloudy	42 days (vial) 14 days (pen)
<b>Long-acting Basal/background 24+ hour insulin)</b>					
*Lantus (Glargine)	1 - 2 hours	Flat (No peak)	24 hours	Clear	28 days
*Basaglar, Semglee, Rezvoglar(Glargine)	1-2 hours	Flat ( No peak)	>24 hours	Clear	28 days
*Levemir (Detemir)	1 - 2 hours	Flat (No peak)	Up to 24 hours	Clear	42 days
*Toujeo (Glargine)	6 hours	Flat (No peak)	>24 hours	Clear	56 days
*Tresiba (Degludec)	1 hour	9-12 hours (minimal peak)	>24 hours	Clear	56 days
<b>Premixed Insulin</b>					
Novolog 70/30 mix	15 minutes	1 – 3 hours	3 – 12 hours	Cloudy	28 days (vial) 14 days (pen)
Humalog 75/25 mix	15 minutes	1 to 4 hours	10 to 16 hours	Cloudy	28 days (vial) 10 days (pen)
Humulin 70/30 mix	15 - 30 minutes	2 to 12 hours	18-24 hours	Cloudy	31 days (vial) 10 days (pen)
Novolin 70/30 mix	30 minutes	2 to 12 hours	Up to 24 hours	Cloudy	42 days (vial) 10 days (pen)

*\*The long acting insulins **cannot** be mixed with any other insulin. Each of these insulins must be given as a separate shot and should be taken at approximately the same time every day.*

*Opened (in-use) insulin pens may usually be kept at room temperature (below 86 degrees) away from direct heat and light- see package insert for specific storage instructions. Opened vials of insulin may be refrigerated or kept at room temperature (below 86 degrees) away from direct heat or light. Unopened insulin should be refrigerated (not frozen) and should be good until the expiration date.*

*Insulin has a very strong effect on your blood sugar and it should be taken **EXACTLY** as prescribed by your doctor. Do not change the dose unless you check with your doctor. Don't ever mix different types of insulin unless the doctor has told you to do so.*

*The most common side effect of insulin is low blood sugar. When taking insulin, always carry a source of fast acting sugar with you and test your sugar regularly.*

# **NOTES**

## Chapter 6: Exercise



Exercise is good for everyone, but it can be especially good for people with diabetes. By exercising, some people with Type 2 diabetes have been able to decrease their diabetes medication. Always ask your doctor for advice before changing any of your medications.

### Regular exercise can:

- **Control your blood sugar.** Regular exercise helps insulin work better by allowing more glucose to enter your cells. Exercise can increase your insulin sensitivity and lower your blood sugars for up to 24 hours.
- **Control your weight.** Regular exercise burns extra calories and increases the rate at which your body burns calories.
- **Boost your energy.** When you exercise regularly, your heart can pump more blood through your body with less effort. This allows you to do more without getting tired.
- **Keep your heart and blood vessels healthy.** People with diabetes are at an increased risk for heart and blood vessel disease. Exercise reduces that risk.

### Types of exercise

A well-balanced exercise program will address the following areas:

- **Flexibility:** such as stretching as a part of the warm-up and cool-down portions of your workout.
- **Strengthening:** such as lifting light weights to increase your calorie- burning muscle mass.
- **Aerobic activity:** such as walking, dancing, swimming or biking to burn calories and reduce risk of cardiovascular disease.

## How much exercise do I need to do?

This all depends on your goals and fitness level. If you wish to do more than just walk briskly, check with your doctor first. Here are the following ADA recommendations according to goals:

- **To improve blood glucose control, avoid weight gain, and reduce heart disease risk**—ADA recommends at least 2.5 hours a week of moderate-intensity aerobic activity or at least 1.5 hours a week of vigorous aerobic activity. The exercise should take place at least 3 days a week with no more than 2 days in a row without exercise. **To meet this goal, exercise a total of 30 minutes 5 days per week.**
- **Resistance Exercise.** Resistance exercises, such as weight lifting and push-ups, build muscle strength. ADA recommends that people with type 2 diabetes do resistance exercises that use all the major muscle groups three times a week. The goal should be 3 sets of 8-10 repetitions at a weight that you cannot lift more than 8-10 times.  
**Examples include: hand weights, soup cans or water bottles, resistance bands, and weight machines**

## Safety Precautions for Exercise

**Before you begin, check with your doctor.** Especially if you are over the age of 35, have heart disease, have high blood pressure, have high cholesterol, or a family history of heart disease.

- **Wear comfortable, supportive shoes and cotton socks.** Check your feet after exercise for any signs of poor shoe fit or injury.
- **Drink more liquids that contain no calories, like water, when exercising.** It is very important to stay well hydrated, especially in hot weather.
- **Tell your doctor about any unusual symptoms you have during or after exercise.** Discomfort in your chest, neck, jaw, or arms is important to report to your doctor. Also, nausea, dizziness, fainting, shortness of breath or changes in vision should be reported.
- **Avoid exercising if your blood sugar is above 300 or under 70.**

- **If you have any of the following diabetes complications, get a physical exam before starting an exercise program.**
  - ❖ **Neuropathy:** People with numbness in their legs should not run, jog, or walk long distances without a doctor's approval. *Recommended exercises may include swimming, stationary bike, and arm chair exercises.*
  - ❖ **Retinopathy:** People with eye problems should see an eye specialist before doing any type of exercise. They should avoid strenuous or high-intensity exercise, such as weight lifting. *Recommended exercise would include walking, swimming, and stationary cycling.*
  - ❖ **Cardiovascular Disease:** People with cardiovascular disease or hypertension should avoid heavy lifting and other strenuous exercise. *Recommended exercises may include walking, cycling, or swimming.*
  - ❖ **Autonomic Neuropathy:** Avoid all strenuous or high-intensity exercise. *Recommended exercise would include walking and swimming.*

**If you take insulin or are on a sulfonylurea for your diabetes, there are a few additional precautions to remember.**

- **Check your blood sugar before and after exercise.** Add a carbohydrate if your pre-exercise sugar is below 100. A general rule is to consume 15-30 grams of carbohydrate for every 30-60 minutes of exercise you do.
- **Carry something to eat that contains glucose.** Take along a source of carbohydrate (4 glucose tablets, 3 pieces of hard candy, or 8 Lifesavers) to use to treat low blood sugar if needed.
- **Don't inject insulin into an area of your body that you will use during exercise.** For example, do not inject insulin into your legs if you will be riding a bike.
- **Wear diabetes identification jewelry.**
- **Check for ketones if blood sugar is greater than 250.** Do not exercise if ketones are present.
- **Talk with your diabetes care team.** Your diabetes care team can advise you of any precautions you may need to take with your food choices, medicine doses or timing.





## How to get started

- **Start slowly.** Five or ten minutes a day is a good beginning if you have been inactive.
- **Warm up your muscles at the beginning of your activity,** then stretch the warmed muscle-no bouncing. Do at least one stretch per major muscle group. This helps prevent injuries.
- **Look for an activity that you enjoy.**
- **Make sure it's right for your current level of fitness.**
- **Walking may be a good way to get started.** It is convenient and low in cost. All you need to get started are cotton socks and a pair of supportive shoes that fit well. **Start with walking 10 minutes after 1 meal and increase to 10 minutes after every meal. You may also consider wearing a pedometer to track the number of steps you are taking each day. Make a goal to slowly increase the number of steps you take each day until you are consistently reaching your personal goal.**
- **Pick the days of the week and time of day you plan to exercise** and mark it on a calendar. Place a check on the calendar if you did the exercise. At the end of 2 weeks or the month, count how many times you exercised to see if you are meeting your goal.
- **Find an exercise partner**
- **Have a “back- up” plan** if your usual exercise is outdoors (use an exercise video, indoor track at a local church, walk around the inside of the mall, or walk in place in your house)

**\*Remember: 5 minutes of exercise beats 0 minutes!**

My exercise plan \_\_\_\_\_

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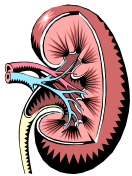
## Chapter 7: Possible Long-term Complications

Many long-term complications with diabetes are associated with having high blood sugar levels over a long period of time. Keeping your blood sugar as close to normal as possible may prevent or delay your chances of having the following:



### Eye problems

Diabetes can affect your eyes in many ways. When your blood sugar is high, you may experience blurry vision. This may be temporary and will usually go away when your blood sugar returns to normal. If you have high blood sugar levels over a long period of time, diabetes can cause the very small blood vessels in the eye to become fragile or blocked; resulting in damage that affects your ability to see. This is called diabetic retinopathy. At first you may notice no change in your vision, but over time, the retinopathy may get worse and can cause vision loss. It is very important to have a dilated eye exam every year to monitor for changes in your eyes. Eye problems can be treated if they are discovered in the early stages.



### Kidney disease

Diabetes can also damage the small blood vessels in the kidneys. This is called nephropathy. This kind of kidney damage has no early symptoms. When this occurs, the kidneys are no longer able to filter all of the waste products out of the blood and into the urine. Waste products can build up in the blood stream. If the damage continues, the kidneys may fail completely. If your kidneys fail, you may require dialysis, in which a machine does the filtering for your kidneys.

Kidney damage can be found at an early and treatable stage with a test called a microalbumin screen. This test detects small amounts of protein in the urine. Another check of kidney function is a blood test called serum creatinine. You should have both of these tests done once a year.



### **Nerve damage**

Nerve damage is also called neuropathy. When your blood sugar is high, nerve cells swell and scar. In time, they lose their ability to send signals through the body the way they should.

**Peripheral neuropathy is the most common type of diabetic neuropathy.**

Symptoms include:

- burning pain, numbness, tingling or loss of feeling in the feet, lower legs or hands, especially at night.

**Neuropathy can also affect other areas and cause:**

- Problems in sexual function in both men and women
- Changes in stomach and bowel function

If you develop neuropathy in your feet, you may not notice when an injury occurs to your foot. If there is no pain to warn you, the foot can become infected before the problem is discovered. This can lead to serious problems that may require surgically removing the foot. Proper foot care can prevent this from occurring.

There are new treatments for neuropathy, so be sure to tell your doctor if you have any of the above symptoms.

**Are you experiencing any of these symptoms? \_\_\_\_\_ If yes, what symptoms**

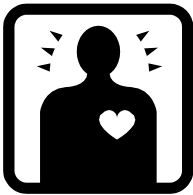
\_\_\_\_\_.  
Talk to your doctor about these symptoms.



### **Frequent infections**

High blood sugar levels can reduce the body's ability to fight off many kinds of infections. Ask your doctor about getting the flu vaccine every year. People with diabetes are more prone to developing:

- skin infections
- vaginal yeast infections
- bladder infections
- tooth and gum infections



### **Heart attack or stroke**

People with Type 2 diabetes are at a higher risk of heart disease. Diabetes can damage the blood vessels that lead to the heart and brain. In time, the blood vessels may become blocked and blood flow restricted. A heart attack or stroke can occur.

#### **To reduce your risk of a heart attack or stroke:**

- Keep your blood sugar under good control.
- Control your cholesterol. Eat foods that are low in saturated fat, trans fat and cholesterol.
- Control your blood pressure. High blood pressure damages blood vessels. People with diabetes are more likely to have high blood pressure than people who do not have diabetes.
- Don't use tobacco. Tobacco narrows blood vessels and increases your risk of heart disease. If you smoke, get help to stop.

**If you smoke, talk to your doctor about quitting or ask your diabetes educator about resources to help you quit. Smoking can negatively affect all the possible complications of uncontrolled diabetes.**

## Chapter 8: General Healthcare



### Eye Care

Possible eye problems such as diabetic retinopathy, glaucoma and cataracts caused by diabetes often have no symptoms in the early, most treatable stages. Therefore, you should have a dilated eye exam every year from an eye specialist (ophthalmologist or optometrist).

You should see your eye specialist if you develop:

- blurred or double vision
- dark spots, lines or flashing lights in your field of vision
- narrowed field of vision
- a feeling of pressure or pain in the eyes
- unusual difficulty seeing in dim light



### Dental Care

Dental problems tend to be more serious when you have diabetes. You can prevent problems with your teeth and gums by:

- Brush and floss your teeth daily.
- Have your teeth cleaned every six months.
- See your dentist if you have unusual pain, swelling, or excessive bleeding.
- Tell your dentist you have diabetes.

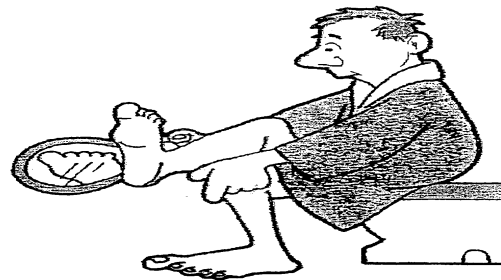
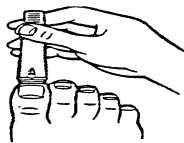


## Foot Care

Poor circulation and nerve damage can make foot problems very serious. Have your doctor or podiatrist test your feet at least once a year for loss of feeling.

To protect your feet:

- Check your feet each day for cuts, scratches, blisters, sores or bruises. Use a mirror if needed to see the bottoms of your feet. Call your doctor right away if you have:
  - \* an open sore on your foot
  - \* any infection in a cut or blister
  - \* a red, tender toe- possibly an ingrown toenail
  - \* any puncture wound, such as if you step on a nail
- Wash your feet each day with warm water and mild soap. Do not soak your feet. After washing, dry them thoroughly, especially between the toes. Use a moisturizing cream to soften dry skin.
- Cut your toenails straight across to prevent ingrown toenails. Do not trim corns or calluses or use iodine, peroxide, or strong antiseptics on your feet.
- Wear socks and shoes at all times. Wear socks and shoes that fit well, not too tight or loose.
- Check inside your shoes for foreign objects or rough spots every time you put them on. Also, check to make sure shoes are dry inside.
- Do not use hot water bottles or heating pads to warm your feet.
- Have your feet checked each time you see your doctor.
- The best time to buy new shoes is late afternoon because your feet swell throughout the day.
- Make sure your shoes have a wide and non-constrictive toe box. This decreases risk of poor circulation and/or foot wounds.



## **Skin Care**

Skin problems related to diabetes range from bothersome itching to painful infections. A bacterial infection can develop from a minor injury. Infections from fungus are also a problem. Infected areas are usually red, inflamed and itchy. See your doctor if you have these symptoms.

### **To keep your skin healthy:**

- Bathe or shower daily avoiding very hot water that can dry out your skin.
- Dry your skin thoroughly
- Use a non-alcohol based lotion to moisturize your skin
- Change your underwear and stockings daily
- Wear cotton underwear
- Wear slippers when using public locker rooms or showers to avoid fungus such as athlete's foot
- Use a sunscreen to avoid sunburn
- Dress warmly and avoid long exposure in very cold weather

### **Take extra care to avoid scratches or bruises. Treat small cuts, broken skin or insect bites promptly. Follow these guidelines:**

- Clean your skin with mild soap and water
- Do not soak the area
- May apply an antibacterial ointment
- Cover it with a clean bandage
- If the area has not started to heal in 48 hours, or you notice redness or swelling, drainage, pain or increased warmth, see your doctor right away.

### **Ask yourself these questions:**

When was your last eye exam? \_\_\_\_\_

Have you had any changes in your vision? \_\_\_\_\_

When was your last dental check-up? \_\_\_\_\_

Do you brush daily? \_\_\_\_\_

Have you had any changes in your teeth? \_\_\_\_\_

Do you check your feet daily? \_\_\_\_\_

Have you noticed any problems with your feet? \_\_\_\_\_

Are you keeping your skin well moisturized? \_\_\_\_\_

Have you noticed cuts are slow to heal? \_\_\_\_\_

Have you reported any of these problems to your doctor? \_\_\_\_\_

## Chapter 9: Sick Day Management

When you are sick, your blood sugar rises. When you are not eating well, your liver is releasing extra sugar for you. Even a cold can cause your diabetes to go out of control. “Sick Days” are when you have a cold, fever, nausea, vomiting, or diarrhea. It also includes undergoing surgery or having an injury. You should always check with your doctor before having surgery or any medical tests for any special instructions regarding your diabetes medicines.

### If you are sick you should do the following:

- Take your insulin or diabetes pills even if you don't feel like eating unless your doctor tells you differently. During illness you may need more medication than normal.
- Test your blood sugar more often. You may need to test every 3-4 hours.
- Drink plenty of fluids (about 6-8 ounces every hour you are awake). Fluids should be both sugar-free and caffeine-free if you are able to eat your meals.
- When taking new medications, ask how they may affect your blood sugar.
- You may take aspirin or Tylenol if you have a fever or whatever medication your doctor has chosen for you.

**You may wish to discuss with your doctor when he wants you to call him.**

### General recommendations, call your doctor if:

- You are unable to keep fluids down.
- You have severe diarrhea or vomiting that lasts more than 6 hours.
- You have urine ketones in moderate or large amounts. (Type 1 should always check for ketones when sick, Type 2- if directed by your MD)
- Have stomach pain, fast breathing, or a fruity odor to your breath (this may be a sign of ketones).



NAUSEA and VOMITING



FEVER and CHILLS



SICK IN BED



INJURY



## Sick Day Foods

If you are **unable to eat your normal food, but can keep liquids down**, you may need to include 1-2 of the following items in your diet in place of your usual meal to supply your body with needed energy (especially if you are at risk for low blood sugar because you take insulin or a sulfonylurea medication).

Each of these will provide **15 grams** of carbohydrate:

- $\frac{3}{4}$  cup regular ginger ale
- $\frac{1}{3}$  cup grape juice
- $\frac{1}{3}$  cup cranberry juice
- $\frac{1}{2}$  cup apple juice
- 3 teaspoons sugar
- 3 teaspoons syrup
- 1 single bar popsicle or  $\frac{1}{2}$  twin bar
- 1 cup Gatorade
- $\frac{1}{2}$  cup Kool-aid
- $\frac{1}{2}$  cup lemonade
- $\frac{1}{2}$  cup 7-up
- 1 cup milk
- $\frac{1}{4}$  cup custard
- $\frac{1}{3}$  cup tapioca pudding
- $\frac{1}{4}$  cup regular pudding
- $\frac{1}{2}$  cup ice cream
- $\frac{1}{2}$  cup regular cocoa
- 1 cup chicken noodle soup
- 1 cup cream soup
- $\frac{1}{2}$  cup cooked cereal
- $\frac{1}{4}$  cup sherbet
- $\frac{1}{2}$  cup regular jello
- 6 saltine crackers



## Chapter 10: Living with Diabetes

### Stress and Coping

Learning to deal with diabetes can be difficult. At first, you may be in denial or feel angry, afraid, frustrated, guilty or depressed. These feelings are normal. It is important that you work through these feelings and learn to accept the diabetes so that you can take care of it. It may be helpful to talk to a family member or friend about your feelings. You may want to join a support group and talk to others who have diabetes and see how they cope with it. Doing blood glucose tests, taking insulin shots, medications and following a meal plan may cause you stress at first. To deal with stress in a healthy way, do the following:

- Find someone to talk to when something is bothering you
- Join a support group
- Take a walk or take up a hobby
- Join a group to talk about books, movies or whatever you like
- Volunteer to help others
- Get away for a night or a weekend
- Learn to say “No” to things you really don’t want to do

**Do you have a lot of stress?** \_\_\_\_\_

**How do you deal with stress?** \_\_\_\_\_

### Work

Having diabetes should not prevent you from working. Having diabetes or other health problems may make it unwise to choose certain types of jobs for safety or other reasons. Type 1 diabetes is considered a disability under the Americans with Disabilities Act. It ensures that you cannot be discriminated against for most jobs because you have diabetes. It may be a good idea to tell your employer you have diabetes in case you need to adjust your schedule for meals/snacks. You may also need to tell the people you work with what to do in case of an emergency.



### Medical Identification:

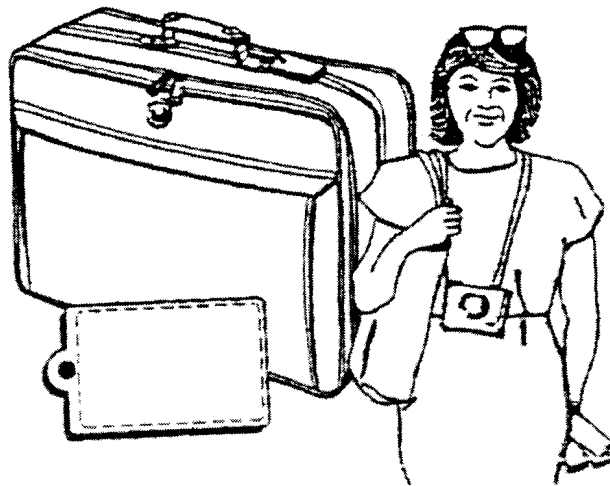
It is a good idea to wear some type of medical identification. In the event that you are injured or need medical care, your ID will let people know you have diabetes. A bracelet or necklace can be purchased which lists your medical conditions as well as an emergency number. You may ask at your pharmacy about medic alert jewelry or purchase from one of the following:

- [www.medicalert.org](http://www.medicalert.org) or call 1-800-432-5378
- [www.americanmedical-id.com](http://www.americanmedical-id.com) or call 1-800-363-5985

## Traveling with Diabetes

A person with diabetes has to take special precautions when traveling. These tips can make traveling safe and enjoyable:

- Take an extra supply of oral medication or insulin with you.
- You should also carry an ID tag that says you have diabetes.
- If you take insulin, it is a good idea to get a special carrying case for your insulin and supplies. Make sure the insulin stays chilled, but don't put it directly on ice, which may cause it to freeze. These special carrying cases are available at most drugstores.
- If flying, never check your medication or insulin supplies through as luggage. Always carry them with you. Bring your supplies in the original box with the pharmacy label attached that tells the name of the medication and your name. All lancets must be capped and enclosed with the glucose monitor. Check with the airline before you go so that you know the latest regulations.
- If you are going on a long trip, it is a good idea to take along some snacks to prevent hypoglycemia between meals if your meals are delayed.
- Remember to adjust your insulin and meals if you are crossing time zones.
- If you are traveling by car, try to stop every couple of hours and walk a few minutes to improve blood flow.
- Always carry fast-acting carbohydrates with you in case you have a low blood sugar.
- You may need to monitor your blood sugar more often so you know how changes in your diet, exercise and sleep affect you.



## **Pregnancy and Diabetes**

It is very important that your blood sugars are in good control prior to pregnancy. Studies show that if your blood sugar is in good control for **three to six months** before you become pregnant, it can help to avoid problems. Talk with your doctor if you are planning on becoming pregnant. You may need to have a dilated eye prior to pregnancy, your meal plan may change and some medications cannot be taken during pregnancy. If you are working with your doctor, together you can make the necessary adjustments to have a normal pregnancy and healthy baby. It is also important to maintain good blood sugar control throughout your pregnancy. You may require more insulin.



## **Menstruation and Menopause**

The hormone changes that occur because of monthly menstruation or menopause can cause blood sugar levels to fluctuate. Some women notice a rise or a decrease in blood sugar right before a period. Your doctor may want you to check your blood sugar more often during this time.

## **Diabetes Education**

Diabetes care is constantly changing. Keep learning as much as you can about diabetes. You may wish to take a refresher course in diabetes every few years. You may want to subscribe to a Diabetes magazine that you can read each month. There are many free web-sites with good diabetes information. Empower yourself to control the diabetes instead of letting it control you.

## Diabetes Continuing Standards of Care

Factors of Care	How Often	Goal
<b>General</b>		
Weight	Every visit	
Pneumonia Vaccination	Once in a lifetime or as recommended by doctor	
Flu Vaccination	Once each flu season	
*Other vaccines that may be recommended include: Hepatitis, HPV, TDAP, Shingles and Covid*		
<b>Diabetes Control</b>		
Self-Monitoring of Blood Glucose	Type 1 ~ 3-4 times per day Type 2 ~ at least daily	Before meals ~ 80 to 130 mg/dl 2 hrs after eating ~ 140 mg/dl or less
HgbA1C (%)	Twice yearly if goals met. Quarterly if not meeting goals.	Less than 7%
<b>Cardiovascular Assessment</b>		
Blood Pressure	Every visit	Less than 130/80
Lipids	Annually	*with no CV risk factors:
• LDL Cholesterol		• Less than or equal to 100 mg/dl
• HDL Cholesterol		• Greater than 40 mg/dl ( <i>males</i> ) • Greater than 50 mg/dl ( <i>females</i> )
• Total Cholesterol		• Less than 200 mg/dl
• Triglycerides		• Less than 150 mg/dl
*Lipid goals are lower in patients with known cardiovascular (CV) risk factors		
EKG	As needed	
Aspirin therapy	Discuss with doctor	For primary prevention
<b>Prevention</b>		
Diabetic Eye Disease (Retinopathy)	Yearly dilated eye exam	
Kidney Disease (Nephropathy)		
• Urinalysis for protein • Microalbumin  • Serum Creatinine • ACE Inhibitor or ARB	• Yearly • Yearly (if urinalysis is negative for protein) • Yearly • Discuss with doctor	
Nerve Disease (Neuropathy) • Comprehensive foot exam	Yearly by MD if no problems At each MD visit if problems Daily by patient at home	
<b>Healthy Lifestyle Habits</b>		
Exercise	20-45 minutes, 5 days a week, as doctor recommends	
No tobacco use		
Stress Management		
• Diet, Medications • Appointments • Self- monitoring of blood glucose	Follow doctor's recommendations	

## **Managing Your Diabetes Checklist**

**Here is a list that you can refer to often in managing your diabetes long term.**

### **Things to do every day**

- ✓ Test your blood sugar and keep records for your doctor.
- ✓ Take your medications as directed.
- ✓ Check your feet.
- ✓ Follow your plan for meals and exercise.
- ✓ Take care of your teeth and skin.

### **Things to do at each doctor's visit**

- ✓ Take your most current blood sugar records and show them to your doctor.
- ✓ Ask about your A1c level and make a goal with your doctor for your next visit.
- ✓ Have your blood pressure checked.
- ✓ Bring an updated, complete list of all your medications to each visit.

### **Things to do at least once a year**

- ✓ Have your cholesterol checked.
- ✓ Have your urine checked for protein and a serum creatinine level.
- ✓ Have a dilated eye exam.
- ✓ Have your feet checked.

## Resources

**Cookbooks** (available on diabetes.org website)

**The Family Classics Diabetes Cookbook**

American Diabetes Association

**The Diabetes Comfort Food Cookbook**

Robyn Webb

**The New Soul Food Cookbook, Second Edition:** Fabiola Demps Gaines, RD, LD

**4-Ingredient Diabetes Cookbook, Second Edition:**

Nancy S. Hughes

**15 Minute Diabetic Meals**

Nancy S. Hughes

**Apps for carb counting/recipes:**

Daily Carb

My Fitness Pal

Calorie King Food search

Calorie Counter by Fat Secret

Fast Food apps available for individual restaurants

Pinterest-search for diabetes recipes

**Apps to track blood sugar**

Diabetes Buddy

My Sugar Diabetes logbook

Sugar Sense

Glucose Wiz

**Apps to track blood sugar, medication, food and exercise**

My Diabetes Manager

One Drop for Diabetes Management

Diabetes Pal

Diabetes Point of Care

**Support apps**

Type 2 Diabetes Support group app

## Resources

### Websites

[www.diabetes.org](http://www.diabetes.org)- American Diabetes Association

[www.glucerna.com](http://www.glucerna.com)- coupons and recipes for Glucerna

[www.boost.com](http://www.boost.com)- coupons and recipes for Boost Glucose Control

[www.myfitnesspal.com](http://www.myfitnesspal.com)

[www.calorieking.com](http://www.calorieking.com)

[www.joslin.org](http://www.joslin.org)- Joslin Diabetes Center

[www.cdc.gov/diabetes](http://www.cdc.gov/diabetes)- National Diabetes Education Program

[www.glucerna.com](http://www.glucerna.com)

### Free Materials

To sign up for Living With Type 2 Diabetes Program:

Diabetes.org/living or call 1-800-Diabetes

### Magazines/Newsletters

Diabetic Cooking: [Diabetic-Cooking.com-sub.info](mailto:Diabetic-Cooking.com-sub.info)

Diabetes Forecast: 1-800-806-7801

Diabetes Health: [subscribe@diabeteshealth.com](mailto:subscribe@diabeteshealth.com)

Diabetes Self-Management: 1-855-367-4813

### Exercise Trackers

Fitbit

Garmin Forerunner

Misfit

Xiaomi Mi Band Pulse (best budget friendly)

Moov Now



## **Appendix A: Checking Your Blood Sugar**

1. Wash your hands good with soap and water. Dry well. If not available, clean your finger off with an alcohol wipe and allow to air dry before pricking your finger.
2. When you prick your finger- rotate and do a different finger every time. Do not prick the tip end of your finger- there are more nerve endings there and it will hurt worse. If you have trouble getting a blood drop, it may help to wash your hands with warm water or shake your hand down. After you prick your finger, you can “milk” it by using your other hand to push blood down into the finger tip from the palm down. The goal is to squeeze up a tiny, round dot/droplet of blood.
3. Use a clean, new lancet every time.
4. Dispose of lancets in a hard plastic container. When container is full, tape the cap on with duct tape and write “Do not recycle” on container and throw in regular trash.
5. DO NOT leave your test strips in the hot car or keep the bottle open too long. Light and heat can damage them. Leave the strips in the container until ready to use.
6. Procedure:
  - a. Clean finger with soap and water or alcohol wipe.
  - b. Load lancet into lancing device by taking the cap off and inserting the new lancet. Twist the protective cover of the lancet and pull it off. Put the cap back on the lancing device. Adjust depth gauge on lancing device- the bigger the number, the deeper it pricks.
  - c. Get new test strip from bottle and close the bottle. Place test strip in meter- this turns the meter on.
  - d. Prick finger using lancing device. If you used alcohol, wipe the first drop off with a tissue and squeeze up a second drop of blood to do the test since alcohol could potentially affect your reading.
  - e. Making sure the meter display is still turned on, apply blood to test strip that is already loaded in the meter. Some strips you apply it to the tip end (ContourNext, Accu-chek) and some to the side (One Touch Verio). Make sure you have allowed enough blood to be soaked up by the test strips by leaving it in the blood droplet a few seconds or until your meter beeps.
  - f. The meter will take about 5-10 seconds to give you a reading.
  - g. Record blood sugar reading on your flow sheet in the correct place.
  - h. Remove test strip from meter and remove lancet from lancing device- dispose of in a hard plastic container.

\*\*Your meter may have come with a small bottle of control solution. If you are worried your strips have been damaged (maybe you left them in a hot car or got a blood sugar reading that seemed unusual), you can check to see if the strips are reading accurately by using the control solution. To do this, place strip in the meter, apply the solution to the strip. When you get a reading, compare it to the control solution range on the bottle of test strips. If it is in range, the strips are good. If not- discard the strips and get more.



Patient Name: \_\_\_\_\_

**Do a blood sugar check at the times checked below and record your results on this sheet.  
PLEASE RECORD MEALS EATEN IN FOOD DIARY**

Date	Fasting	2 Hours After	Before Lunch	2 Hours After	Before Supper	2 Hours After	Bedtime	Comments on Stress/Exercise
	✓	✓						
			✓	✓				
					✓	✓		
	✓	✓						
			✓	✓				
					✓	✓		
	✓	✓						
			✓	✓				
					✓	✓		
	✓	✓						
			✓	✓				
					✓	✓		
	✓	✓						

**Recommended blood sugar ranges:**

Fasting and pre-meal: 80-130 mg/dl.

2 hour after meals: 140 mg/dl. or less



Patient Name: \_\_\_\_\_

**Do a blood sugar check at the times checked below and record your results on this sheet.  
PLEASE RECORD MEALS EATEN IN FOOD DIARY**

Date	Fasting	2 Hours After	Before Lunch	2 Hours After	Before Supper	2 Hours After	Bedtime	Comments on Stress/Exercise

**Recommended blood sugar ranges:**  
Fasting and pre-meal: 80-130 mg/dl.  
2 hour after meals: 140 mg/dl. or less

## Appendix B: Support

Managing diabetes is hard and sometimes we need a little extra help in doing certain things. If you are struggling in any particular area of managing your diabetes, it may be helpful to put in place something that helps “support” you.

<b>Healthy Eating</b>	
<input type="checkbox"/> Purchase a diabetes cookbook <input type="checkbox"/> reduce portion sizes by using measuring cups <input type="checkbox"/> Use a portion control plate to control portions <input type="checkbox"/> Keep a food diary <input type="checkbox"/> Use a carb counting app on phone <input type="checkbox"/> Use carb counting wallet card <input type="checkbox"/> Use the internet to look up healthy recipes <input type="checkbox"/> _____	Cookbooks available on diabetes.org  Carb Counting apps: My Fitness pal Carb Manager Carb Counter Diabetes food tracker
<b>Being Active</b>	
<input type="checkbox"/> Join a gym <input type="checkbox"/> Create or join a walking group <input type="checkbox"/> Purchase an exercise video <input type="checkbox"/> Use you-tube exercise videos <input type="checkbox"/> Wear a pedometer to track steps <input type="checkbox"/> Plan exercise in my calendar <input type="checkbox"/> _____	Youtube.com 1 mile happy walk Walking down your blood sugar Seated exercises for older adults Senior Fitness- Resistance band exercises for full body workout
<b>Monitoring</b>	
<input type="checkbox"/> Set a reminder on phone to check blood sugar <input type="checkbox"/> Use an app on phone to store blood sugars <input type="checkbox"/> _____	Apps: My glucose tracker mySugr-Diabetes tracker
<b>Taking medication</b>	
<input type="checkbox"/> Set a reminder on phone to take medicine/insulin <input type="checkbox"/> Use a pill organizer to remember to take meds <input type="checkbox"/> Place medicine/insulin on table where you eat <input type="checkbox"/> _____	
<b>Problem Solving</b>	
<input type="checkbox"/> Use legitimate websites to research diabetes information <input type="checkbox"/> Get help for food insecurity <input type="checkbox"/> Subscribe to a diabetes magazine <input type="checkbox"/> _____	American Diabetes Association/Joslin/Mayo Dial 2-1-1 or 1-888-421-1226 for food bank of the day Diabetes Forecast (call 1-800-806-7801) Diabetes Self-Management (Call 1-855-367-4813)
<b>Healthy Coping</b>	
<input type="checkbox"/> Join an online support group <input type="checkbox"/> Talk to a counselor/therapist <input type="checkbox"/> Get support from family/friends <input type="checkbox"/> Use diabetes case management services provided by my employer <input type="checkbox"/> _____	DiabetesSisters.org; diabetes.org; Defeatdiabetes.org; diabetesfoundationinc.org; Diabetes Facebook groups  Type 1: Juvenation.org; MyGlu.org; Tudiabetes.org
<b>Reducing Risks</b>	
<input type="checkbox"/> Smoking Cessation classes <input type="checkbox"/> Schedule a Podiatrist appointment <input type="checkbox"/> Schedule an eye exam <input type="checkbox"/> _____	<a href="http://www.quitnowalabama.com">www.quitnowalabama.com</a> or call 1-800-784-8669

## **Appendix C: Emergency Preparedness with Diabetes**

Managing diabetes can be even harder when you are dealing with a major storm, loss of electricity and possible evacuation from your home. Having a “diabetes kit” can save a lot of time and worry when disaster strikes.

Your diabetes kit should be stored in an easy to carry waterproof bag or container to hold the documents, information and supplies that you will want to have with you. ***The emergency kit should be reviewed regularly with all the expired items being thrown out and replaced with fresh supplies.***

### **Paperwork/Documentation**

- Type of diabetes you have
- Other medical conditions, allergies and surgeries
- Current medications, doses and time you take them. Include your pharmacy name / #.
- Doctor’s name and phone number
- Family member’s names and numbers
- Copy of your health insurance cards and photo ID
- Cash

### **Medicines/Supplies**

- Additional week supply of all your medications.
- Meter, testing strips and lancets
- First aid supplies: alcohol wipes, bandages, topical ointments
- Extra supplies for insulin pump or CGM
- Extra batteries
- Flashlight
- Charging supplies for cell phone
- Pen/pencil/paper for note taking or recording blood sugars
- Container for sharps storage, such as a plastic bottle with a cap
- Extra clothing including socks, underwear and shoes

### **Food**

- Items to treat a low blood sugar (boxed juice, canned regular soda, hard candy, glucose tablets, glucagon)
- 2-day supply of non-perishable ready to go food like: pre-packaged tuna, beans, cheese and cracker snacks, peanut butter crackers, nutrition bars, nuts
- 3-day supply of bottled water

Make sure that all your vaccinations are up to date. Choose a meeting place with your family in case you are separated and write down the location in your kit. Wear a medical ID.

[www.diabetes.org](http://www.diabetes.org) (Be ready with your DM emergency plan (1-800-DIABETES) 800-342-2383

[www.diabetesselfmanagement.com](http://www.diabetesselfmanagement.com)

"Take care of your body.  
It's the only place you have  
to live."

- Edward Smith

"Knowing is not enough, we  
must apply. Willing is not  
enough, we must do."

- Goethe

"Those who do not find time  
for exercise, will have to  
find time for illness."

- Edward Smith Stanley

"Instead of giving myself  
reasons why I can't, I give  
myself reasons why I can."

- Anonymous

"The food you eat can  
either be the safest and  
most powerful medicine  
or the slowest form  
of poison."

- Dr. Anne Wigmore

"You will never change your  
life until you change  
something you do daily. The  
secret to your success is  
found in your daily routine."

- John C. Maxwell

Diabetes management is sometimes hard.  
But.....it is worth it  
and  
YOU are worth it.  
You deserve to live the best life possible with  
your diabetes.



