

# DIABETES BASICS



Kentucky Public Health  
Prevent. Promote. Protect.



Being Active



Medication



Healthy Eating



Monitoring

Staying Healthy With Diabetes

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This booklet is designed to give you basic information about diabetes. It is not meant to take the place of diabetes education or meeting with your health care team.

Ask your local health department or health care provider about diabetes education and an appointment with a dietitian.

Recommendations are based on Standards of Care in Diabetes 2023 from the American Diabetes Association.

For more information: Click the QR Code



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# What Is Diabetes?

Diabetes is a lifelong medical condition that keeps your body from using food in the usual way.

Type 1 diabetes: your body no longer makes insulin.

Type 2 diabetes: your body still makes insulin but it does not work as well.

In both cases, sugar builds up in the blood and this is diabetes.



**Monitoring**

These are four of the things you can do to stay healthy with diabetes:

1. Eat healthy
2. Engage in physical activity
3. Monitor your blood sugar
4. Take your medication as prescribed



**Healthy Eating**



**Medication**



**Physical Activity**



## You Are Not Alone . . .

Learning you have diabetes can be stressful and scary. The good news is there is support! Ask your health care provider about classes, support groups and other services offered for people with diabetes.



# Why Should I Manage My Blood Sugar?

**High blood sugar over time can lead to problems such as:**

- Heart Attack
- Nerve Damage
- Stroke
- Amputations
- Circulation Problems
- Eye Disease
- Kidney Disease
- Dental Problems

**To help prevent these problems you can do the following:**

## **Every day:**

- Follow your diabetes meal plan
- Be active
- Take your medication as prescribed
- Check your blood sugar
- Check your feet
- Brush and floss your teeth
- Find positive ways to cope with stress
- No tobacco products. If you use them, quit!

## **At least every six months:**

- Get an A1C test
- See your dentist



## **Every year:**

- Check cholesterol and blood fats
- Dilated eye exam
- Kidney exam
- Flu shot
- Complete foot exam
- Ask about a pneumonia and a Hepatitis B shot

## **At every medical office visit:**

- Have your bare feet checked
- Get blood pressure & weight checked
- Bring blood sugar records and discuss



**Taking care of yourself makes a difference!**



If you are overweight, losing 5-7% of your body weight can help you manage your blood sugar.

For example:

If you weigh 200 lbs, losing 5-7% is 10-14 lbs.



# Monitoring Your Blood Sugar

Ask your healthcare provider where you can get a blood sugar monitor. Take your monitor everywhere with you, so you can see how things such as eating, activity and stress affect your blood sugar.



- Follow the instructions that come with your blood sugar monitor.
- Store your strips in the original package and at room temperature.
- Use control solution to make sure test strips are good.
- Do not use expired or used strips.
- Wash your hands with soap and warm water before checking your blood sugar.
- Be sure you have enough blood on your test strip.
- Dispose of your lancet properly. Check with your health care provider, diabetes educator, and/or trash company about disposal.
- Write your blood sugar in your record book. Bring your monitor and record book to each medical visit.
- Follow guidelines for highs and lows on pages 4-5.

## How often should I check my blood sugar?

Many people check their blood sugar several times throughout the day. Ask your health care provider how often they would like you to check.

## What times should I check?

- Before and two hours after meals
- Before and after increased activity
- Anytime you feel different than usual
- Ask your healthcare provider what times are best for you.



## What should my numbers be?

Blood Sugar before meals	Blood Sugar 1-2 hours after eating
80-130 mg/dl	less than 180 mg/dl

## A1C Test

Another test for blood sugar is the A1C. This can be done by your health care provider. This test tells what your average blood sugar levels have been for the past 2 to 3 months. For most people it is best to keep your A1C less than 7% for most people.

# Hyperglycemia

## High Blood Sugar

(Set your blood sugar range with your health care provider.)

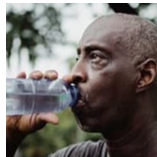


### Causes

- Too much food
- Too little medication
- Sickness, infection, or stress
- Less exercise than usual

**You may or may not have any of these symptoms:**

Hungry  
Headache  
Nausea  
Slow healing wounds  
Weight Loss  
(mainly Type 1)



Thirsty



Blurry Vision



Frequent  
Urination

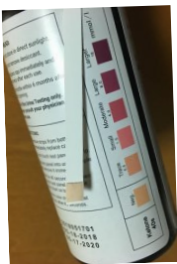


Tired

### Treatment

Check blood sugar:

- If sugar is above 300 call your health care provider (HCP).
- They may tell you to test your ketones.
- Ketones act like a poison and form when the body starts to use its own fat, instead of sugar for energy.
- If you have ketones, call your health care provider immediately.
- Drink plenty of sugar-free liquid; water is the best choice.
- Make a plan with your health care provider if your blood sugar is high.



# Hypoglycemia

## Low Blood Sugar

(70 mg/dl or below, unless different values are set with your health care provider.)



### Causes

- Too little food
- Too much medication
- Extra activity

### You may feel any of these symptoms:

Tired  
Weak  
Irritable  
Confused  
Blurry Vision  
Headache



Dizzy



Numb



Sweaty



Shaky

### Treatment

- Check blood sugar. If you cannot check but you have symptoms, treat anyway.
- If blood sugar is low, follow the Rule of 15:

Rule of  
15

#### Rule of 15:

- Eat 15-20 grams of carbohydrate such as: 3-4 glucose tablets, 15 grams carbohydrate, glucose gel, 1/2 cup juice or regular soft drink, 1 cup milk, or 1 Tbsp honey or sugar.
- Wait 15 minutes.
- Retest blood sugar.
- If blood sugar is still low, repeat Rule of 15.

Be aware that your blood sugar may fall low again if a snack or meal is not eaten within the next hour.



Wear diabetes identification!

# Healthy Eating

Eating right with diabetes does not mean you have to give up your favorite foods. Learning how to eat healthy is a key part of good diabetes care. Good diabetes meal planning includes:

- Choosing healthy foods
- Learning how different foods and the amount eaten affect your blood sugar
- Eating three meals a day at regular times



- Carbohydrates are starches and sugars in food
- They have more of an effect on blood sugar than protein or fat
- You can eat these foods but may need to eat less at one time

***Make an appointment with a dietitian to plan your meal and daily carbohydrate needs.***



## Tips for Healthy Eating

- Bake, broil or grill foods rather than fry them.
- Limit foods loaded with sugar such as regular soft drinks or desserts.
- Non-starchy vegetables such as carrots, celery, and broccoli are high in fiber, but low in calories and make great snacks!
- Read food labels to know what you are eating.



# Healthy Plate

The Diabetes Healthy plate gives you an idea of how many servings of each food group to eat every day. A healthy meal plan includes foods from all major food groups.

## Fats, Oils, & Sweets (use sparingly)

- 1 tsp butter, margarine, or oil
- 1Tbsp reduced fat mayonnaise

## Fruits (2-4 servings)

- 1 small piece of fresh fruit
- 1/2 cup canned fruit
- 1/2 banana
- 1/2 cup fruit juice (1/3 cup for cranberry or grape juice)

## Milk & Yogurt (2-3 servings)

- 1 cup milk
- 3/4 cup yogurt



## Meat, Poultry, Fish, Dry Beans, Eggs, Cheese (4-6 ounces per day)

- 2 Tbsp peanut butter
- 1 egg
- 1 oz cheese
- 1 oz meat or fish

## Vegetables (3-5 servings)

- 1 cup raw vegetables
- 1/2 cup cooked vegetables

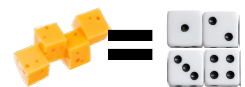
## Bread, Cereal, Starchy Vegetables, Rice & Pasta (6-11 servings)

- 1 slice of bread
- 4-6 crackers
- 1/2 hotdog or hamburger bun
- 1/3 cup rice or pasta
- 1/2 cup starchy vegetable

What does a serving look like?



3 ounces of meat is about the size and thickness of a deck of playing cards



1 oz of cheese is about the size of 4 stacked dice



1/2 cup of ice cream is about the size of a tennis ball



1 cup of veggies is about the size of your fist



1 teaspoon of butter or peanut butter is about the size of the tip of your thumb



1 ounce of nuts or small candies equals one handful

# Reading Labels

Learning to read labels is a key to healthy eating and can help you make good choices. Below are four important parts of a food label:

1. **Serving Size:** Use measuring spoons, cups, or food scales to measure each serving. All the nutrition information listed is for one serving. If you eat two servings, multiply everything by two.
2. **Calories:** This is key for weight loss.
3. **Total Fat:** A low-fat food is less than three grams of fat per 100 calories. Choose mostly low-fat foods.
4. **Total Carbohydrate:** Carbohydrates are needed every day. Too much carbohydrate at one time may make blood sugar too high. Total carbohydrates may include fiber, sugars, and other carbohydrates. When counting carbohydrate only use Total Carbohydrate listed on the food label. Ask your dietitian how many grams of carbohydrate you need.

To cut carbohydrates, use sugar substitutes that are carbohydrate-free.



<b>Nutrition Facts</b>	
2 servings per container	
<b>Serving size 1 1/2 cup (208g)</b>	
<b>Amount per serving</b>	
<b>Calories</b>	<b>240</b>
<b>% Daily Value*</b>	
<b>Total Fat 4g</b>	<b>5%</b>
Saturated Fat 1.5g	8%
Trans Fat 0g	
<b>Cholesterol 5mg</b>	<b>2%</b>
<b>Sodium 430mg</b>	<b>19%</b>
<b>Total Carbohydrate 46g</b>	<b>17%</b>
Dietary Fiber 7g	25%
Total Sugars 4g	
Includes 2g Added Sugars	4%
<b>Protein 11g</b>	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 6mg	35%
Potassium 240mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

## Low-calorie sweeteners:

Brand name	Name listed in ingredients
Sweet 'N Low, Sugar Twin, or Sucaryl	Saccharin
Equal or NutraSweet	Aspartame
Sweet One	Acesulfame K
Splenda	Sucralose
Truvia, PureVia	Stevia

# Physical Activity

Regular physical activity is a key part of your diabetes management plan. For most people with type 2 diabetes, physical activity helps keep blood sugars in a healthy range. Physical activity may also:

- Reduce stress and increase energy
- Increase strength and range of motion
- Help lower blood pressure and cholesterol
- Help insulin work better



## Tips for a Successful Activity Plan

- Choose a physical activity you enjoy.
- Plan for physical activity.
- Find a buddy.
- If you have not been physically active in a while, begin slowly,
- Aim for at least 30 minutes a day.

## Things to carry with you when being active:

1. Phone numbers of family and health care providers in case of an emergency
2. Cell phone
3. Blood sugar monitor
4. Diabetes identification
5. Emergency food to treat low blood sugar such as glucose tablets (See page 5)



## Keeping Physical Activity Safe:

- See your health care provider before beginning any physical activity program.
- Drink plenty of sugar-free fluids like water.
- Check your blood sugar before and after physical activity. People with diabetes are at higher risk for a low blood sugar during and for several hours after physical activity.
  - \* If blood sugar is less than 100 or it has been more than 90 minutes since eating, you may want to eat a snack before activity.
  - \* If blood sugar is over 300, you are not feeling well, or have ketones; postpone activity, drink water and monitor blood sugar.
- Wear good fitting shoes.
- Check your feet before and after physical activity.
- Include a warm-up and cool-down.
- Avoid an intense workout outdoors if it is very hot, humid, smoggy or cold.



# Medications

- You may have to take diabetes medications if it is not possible to manage your diabetes with healthy eating and physical activity alone.
- Diabetes medications work better when you follow a healthy eating and physical activity plan.
- Diabetes medications may be pills taken by mouth or medications that must be injected.



## Tips for Medications

- Learn the name of your medication, the amount to take, and the time to take it.
- Carry a list of all your medications with you at all times. Learn how your medication works and possible side effects.
- Call your health care provider if you have any side effects.
- Do NOT stop taking your medication or change the amount without asking your health care provider.
- Ask your pharmacist about your medication.



# Insulin

- If you have type 1 diabetes, you must take insulin because your body no longer makes it.
- If you have type 2 diabetes, you may take pills or insulin and sometimes both.
- When insulin is prescribed, your health care provider will teach you how to take it.

## Tips for Taking Insulin



- Store insulin according to directions on the package or talk with a pharmacist. May be able to leave pen or vial at room temperature if going to be used in the days listed on instructions.
- Check the expiration date on the vial of insulin or pen.
- Do NOT use the insulin if there are solids or frosting in the bottle.
- Do NOT store insulin in extreme temperatures – either too hot or too cold. Keep away from sunlight.
- Warm up cold insulin before injecting by gently rolling bottle between your palms.
- Ask your pharmacist or health care provider about mixing insulins.
- Measure insulin carefully for the correct amount.
- Dispose of your needles appropriately. Check with health care provider, diabetes educator, and/or trash company about proper disposal of these items.
- If using insulin pen, dial up 2 units and inject into air to make sure insulin is coming out of needle. If you do not see insulin come out of needle, do again until you see drop of insulin. You can leave the pen out at room temperature after the first use.



# Sick Days

When you are sick, your blood sugar may go higher or lower than usual. It is important to have a plan for your sick days BEFORE you get sick. Discuss this plan with your health care provider.



Call your health care provider if you:

- Have blood sugars that stay over 300 mg/dl or under 70 mg/dl
- Have ketones in urine (type 1)
- Lose 5 lbs or more when you are sick
- Have vomiting or diarrhea for more than six hours
- Cannot eat solid foods for more than 24 hours
- Cannot keep liquids down
- Feel dizzy, confused or in pain

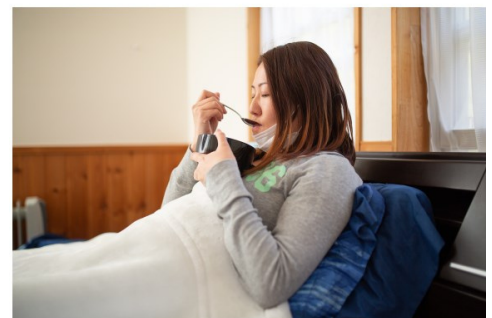
## Sick Day Foods

Try to eat regular meals. If you cannot, here are some examples of foods to keep your carbohydrate intake about the same:

- 1/2 cup pudding
- 4-6 crackers
- 1/2 cup regular gelatin
- 1/2 cup juice

## Sick Day Tips

- Never stop taking your diabetes medication without talking to your health care provider.
- Check your blood sugar at least every four hours when you are sick.
- Drink water to prevent dehydration. Do not drink liquids with caffeine.



# Resources



- Kentucky Diabetes Prevention and Control Program  
<https://www.chfs.ky.gov/agencies/dph/dpqi/cdpb/Pages/diabetes.aspx>
- Association of Diabetes Care and Education Specialist  
[www.diabeteseducator.org](http://www.diabeteseducator.org)
- American Diabetes Association  
[www.diabetes.org](http://www.diabetes.org)
- Centers for Disease Control and Prevention  
[www.cdc.gov/diabetes](http://www.cdc.gov/diabetes)
- Kentucky Diabetes Network, Inc.  
[www.kydiabetes.net](http://www.kydiabetes.net)
- Academy of Nutrition and Dietetics  
[www.eatright.org](http://www.eatright.org)
- National Institute of Diabetes and Digestive and Kidney Diseases  
<https://www.niddk.nih.gov>



## Contact Information

Write in the names and phone numbers for your diabetes care

Provider: _____	Phone: _____
Dietitian: _____	Phone: _____
Nurse: _____	Phone: _____
Pharmacy: _____	Phone: _____
Other: _____	Phone: _____

## Notes

[illegible]



# Diabetes Self-Management Guide

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

Doctor/Provider Name: \_\_\_\_\_ Doctor/Provider Phone: \_\_\_\_\_

Doctor/Provider Emergency or After Hours Phone: \_\_\_\_\_

## When Should I Check My Blood Sugar?

Check blood sugar level  
(check all that apply):



Breakfast

Lunch

Dinner

Before these meals:

After these meals:




Before Bedtime: ☐ Other: \_\_\_\_\_

\* Always check your blood sugar if you have symptoms of a low or high, or if you feel sick.

## What Do I Do Now?



Contact your provider for blood sugar below \_\_\_\_\_ mg/dl, or above \_\_\_\_\_ mg/dl.



Go to an urgent care clinic for blood sugar below \_\_\_\_\_ mg/dl, or above \_\_\_\_\_ mg/dl.



Go to the Emergency Room for blood sugar below \_\_\_\_\_ mg/dl, or above \_\_\_\_\_ mg/dl.

Other: \_\_\_\_\_

## What if I'm Sick?

☐ Hold diabetes medication if sick and can't eat: (Name of medicine) \_\_\_\_\_

☐ Check blood sugar more frequently, as follows: \_\_\_\_\_

☐ Check for ketones if: \_\_\_\_\_

### Contact health care provider if you:

☐ Cannot eat regular foods for \_\_\_\_\_ (hours/days), or cannot keep liquids down for \_\_\_\_\_ hours.

☐ Have vomiting or diarrhea for \_\_\_\_\_ (hours).

☐ Have blood sugar stay over \_\_\_\_\_ mg/dl, or below \_\_\_\_\_ mg/dl, for two or more tests.

☐ Other sick day plan: \_\_\_\_\_

## What Preventative Care Do I Need?

☐ Comprehensive foot exam

☐ Dilated eye exam

☐ Flu shot (every year)

☐ Other vaccinations, as follows: \_\_\_\_\_

☐ Quit smoking (free Quit Now KY resource 1-800 QUIT Now (1-800-784-8669)

☐ Dental visit

☐ Medical Nutrition Therapy

☐ Attend support group (diabetes, weight management, physical activity, online forum, etc)

☐ Other: \_\_\_\_\_

Click QR code to view form electronically.



