

Caring for Yourself or a Family Member

# Understanding DIABETES



MaineHealth

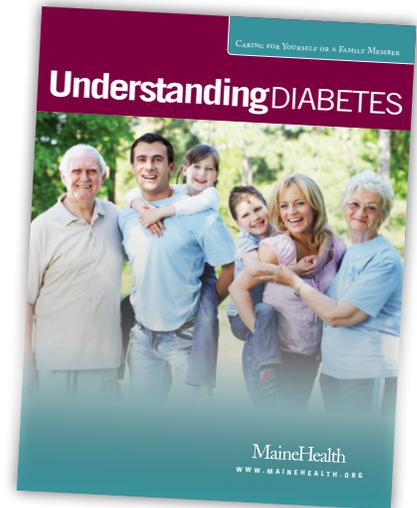
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# What's In This Guide

**This guide will help you manage your diabetes and lead an active and healthy life.**

If you or someone in your family has diabetes, this booklet is for you! It is provided as part of the MaineHealth Diabetes Program. It has information about diabetes and tips on how to work with your health care provider to manage your diabetes. We invite you to share this booklet with your family and friends.

You can also find a lot of helpful information at our website at [www.mainehealth.org/diabetes](http://www.mainehealth.org/diabetes).



**These five steps will help you manage your diabetes and lead an active and healthy life:**

- Make healthy food choices
- Get regular physical activity
- Use your medicine correctly
- Test your blood sugar
- Get regular check-ups



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# 1 Understanding Diabetes

## What is Diabetes?

Most of the food you eat is broken down into a sugar called glucose. Your body uses this sugar for energy. Insulin is a hormone that carries this sugar into your body's cells. With diabetes, your body cannot always move the sugar into your cells to be used for energy, so sugar can build up in your blood stream.

### Diabetes is Serious

Over time, high blood sugar can harm your body and may cause:

- Loss of feeling in your feet
- Blindness
- Problems with your heart and blood vessels
- Damage to your kidneys

### There are Two Major Types of Diabetes

1. **With type 1 diabetes**, your body stops making insulin. Because of this, you need to take shots of insulin so your body can then carry the sugar into your cells.
2. **With type 2 diabetes**, your body does not make enough insulin and/or is not able to use the insulin it does make. Certain medicines and/or lifestyle changes may help your body better control your blood sugars.

### What Can You Do?

- Follow the ABC's of diabetes care:
  - A for A1C: Keep your blood sugars in a healthy range for you.
  - B for Blood Pressure: Keep your blood pressure less than 140/90 mmHg.
  - C for Cholesterol: Keep your LDL cholesterol lower than the number that your doctor advises.
- Check your feet daily for any changes in feeling or appearance.
- Get regular eye exams and talk with your doctor if you have any changes in your vision.
- Talk with your doctor if you have any other discomfort or changes to your health.

There is no cure for diabetes, but there are many things you can do to manage your blood sugar.

# Who Can Help

Your healthcare team will give you information about how to manage your diabetes. Your care team may include:

**Primary Care Provider:** Your primary care provider will prescribe your medicine, making changes as needed, and will make sure you get the tests you need to monitor your diabetes and potential complications. They may also refer you to an endocrinologist to help care for your diabetes.

**Endocrinologist:** These are doctors who specialize in diabetes, hormones and metabolism. They will help care for your diabetes and how it affects the rest of your body.

**Diabetes Educators:** You may also hear these providers called “Diabetes Care and Education Specialists”. These professionals can help you learn about your medicines, how to eat well and exercise, and how to prevent health problems.

**Dietitians:** These professionals help you learn how to select healthy food and how to balance your medication with the food you eat—this will help your blood sugar levels from getting too high or too low.

**Behavioral Health Specialists:** These professionals offer many services, including help in coping with the stress of managing a chronic disease.

**Eye Care Providers:** These professionals help monitor the health of your eyes and treat potential complications of diabetes in the eye.



# 2 Living With Diabetes



## Healthy Eating Can Lead to Better Overall Health!

- A well-balanced meal plan includes foods from all of the major food groups.
- Being mindful of your food portion sizes is important.
- Speaking with a registered dietitian can help you to understand the best meal plan for you.
- Limit processed foods and added sugars.
- Include healthy sources of carbohydrates (also known as “carbs”) in your meals as part of a healthy eating plan. The amount of carbs in the food you eat affects your blood sugar the most.
- Some examples of healthy carb choices are: vegetables, legumes, fruits, dairy (milk and yogurt), and whole grains.
- Try drinking more water in place of sweetened beverages or juice.
- Eating healthy high fiber foods can help you feel full for longer, help lower cholesterol levels and help to manage blood sugar. These foods may be:
  - Fruits
  - Vegetables
  - Beans
  - Whole grains
- Be aware of the amount of fat, sugar and salt in the foods you eat. Nutrition labels are a good place to find this information. Speak to your healthcare provider or registered dietitian about what amounts are right for you or if you have any questions about the above.



# Physical Activity

Talk with your provider before beginning any physical activity. Follow the guidelines that they give you. Start slow and easy; work toward increasing your pace and the length of time you are physically active.

## Physical activity will help:

- Lower your blood sugar levels.
- Lower your blood pressure.
- Lower your cholesterol.
- Make insulin work better.
- Keep a healthy weight.
- Raise your energy level.
- Relieve stress.
- Help you feel good about yourself.

**Any movement is better than no movement!**  
**Try these activities to add more movement to your life each day:**

- Take the stairs, not the elevator.
- Park your car farther away from the store.
- Play with your children/grandchildren/pets.
- Walk instead of drive.
- In bad weather, walk around the inside of a mall.

**If you take insulin or diabetes medicine, talk with your healthcare team about these tips for physical activity:**

- Check your blood sugar more often.
- You may need to change the dose of medicine you take.
- Balance your food intake and medicine with activity.
- You may need to eat a snack before physical activity to help prevent low blood sugar.
- Wear or carry an identification tag or card saying you have diabetes. You can get these at your pharmacy.
- Always carry a fast-acting carbohydrate during activity, in case you have symptoms of low blood sugar.

**A fast-acting carbohydrate could be 1 of the following:**

- 4 glucose tablets, **OR**
- 1/2 cup of fruit juice or regular soda, **OR**
- 1 tablespoon of sugar or jelly, **OR**
- 2 tablespoons of raisins.

# Medicines for Diabetes

There are many medicines to help you control your blood sugar. Medicines for diabetes work in different ways, and it is important that you know how and when to take them. Talk to your healthcare team about your medicines.

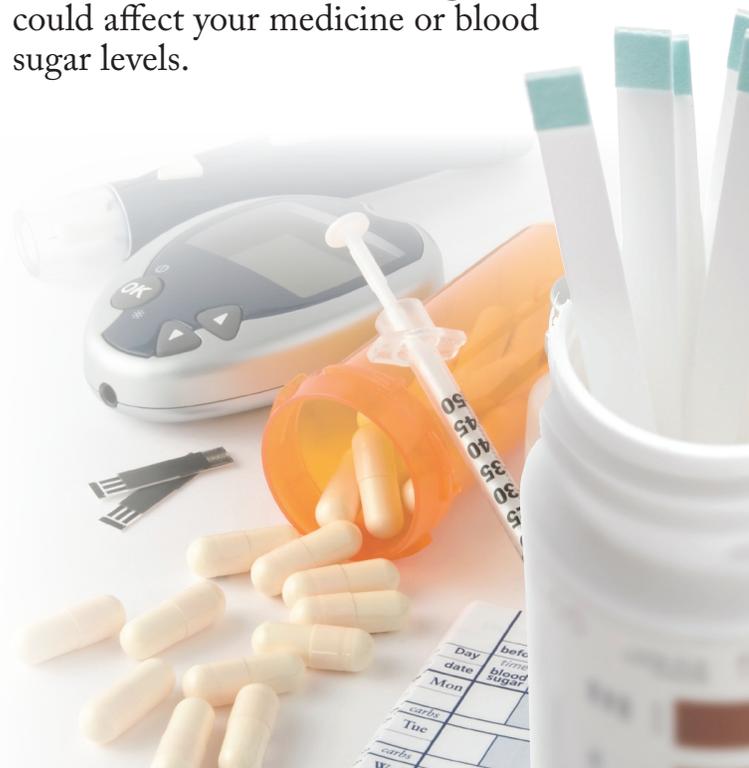
## For people with

**Type 1 diabetes:** Because your body is no longer making insulin, you will need to take the insulin that your body needs – usually in the form of shots (injection) or with an insulin pump. Your healthcare team will teach you how to do this.

**Type 2 diabetes:** Because your body is still making some insulin, your provider may recommend medicine in the form of pills to help lower your blood sugar. Some people also need to take insulin or other injectable medicines to control blood sugar. In either case, your healthcare team will work to find the best plan for you.

**It is important to take your medicines safely. Here are a few helpful tips:**

- If you forget to take a pill, take it as soon as you remember. If it is almost time for your next scheduled dose, skip the one you missed and go back to your regular schedule. Never take two doses at the same time.
- If you forget an insulin shot, call a member of your healthcare team to ask when to take your next shot.
- Talk with your healthcare team or pharmacist about how taking over the counter medicines or drinking alcohol could affect your medicine or blood sugar levels.



# Coping with Diabetes

Living with diabetes can be a challenge. Managing your diabetes and life activities can sound overwhelming, but many people do it successfully!

There may be times you do not want to think about your diabetes. You may feel sad, angry, worried, or stressed over the amount of work it takes to control your blood sugar levels. These feelings are normal, unless they stop you from enjoying your life.

These feelings can be signs of depression. Your doctor or another healthcare professional can be a good source of information and support.

## Get help from your doctor if:

- You feel sad, angry, worried, stressed, or cry often for more than 2 weeks in a row, **OR**
- These feelings make it hard to do your activities each day, **OR**
- These feelings cause problems with your family or friends.

## Tips to help you cope:

- Talk with your doctor and others about your feelings.
- Learn more about diabetes.
- Be more active.
- Do not be afraid to seek help, you are not alone.



# 3

## Blood Sugar

### The Importance of Checking Your Blood Sugar

#### The Power to Manage Your Diabetes is in Your Hands

Controlling your blood sugar levels will help you stay healthy and feel your best. Testing your blood sugar helps you learn how physical activity, food, diabetes medicine and stress can change your blood sugar levels.

The American Diabetes Association suggests that blood sugar levels should be between 80-130 mg/dL before meals and less than 180 mg/dL 1-2 hours after meals. Keep in mind that blood sugar targets may not be the same for everyone.



#### Tips for Testing Your Blood Sugar:

- Ask your doctor for information on getting a blood sugar (glucose) meter.
- Purchase your own blood sugar meter. You can find a meter in most drug stores.
- Learn how to use a meter and test your blood sugar at the times your provider or diabetes educator suggest.
- Ask your doctor what your blood sugar targets should be.
- Review the results of each test stored within the meter, or in your written log.
- Share your test results with your doctor and diabetes educator at each visit.
- Know when to contact your provider about blood sugar results.

# Know Your High Blood Sugar Symptoms

It is important to call your primary care provider when your blood sugar is high. Be aware of the common symptoms of high blood sugar levels. If you have one or more of these symptoms, talk with your doctor:

- Frequent urination
- Always tired
- Always thirsty
- Blurry vision
- Slow healing cuts or sores
- Frequent infections
- Numbness or tingling in your hands and feet
- Unexplained weight loss
- Itchy or dry skin

**Note:** Some people may not have symptoms

## Important

When your blood sugar rises too high, and stays high you have high blood sugar (HYPERglycemia). It can happen over a long period of time or very quickly. This means you need to lower your blood glucose levels to promote health and wellness.

### Common Causes of High Blood Sugar:

- Overeating
- Inactivity
- Illness
- Stress
- Skipping or missing diabetes medicine or taking less than is needed
- Diabetes medicines need adjustment



# Know Your Low Blood Sugar Symptoms

At times, your blood sugar level may drop too low. This is called “low blood sugar” or **HYPO**glycemia. Levels below 70 mg/dL are too low and need to be treated right away!

If you have one or more of the symptoms listed below, test your blood sugar:

- Shaky, light-headed, or sweaty
- Weakness or headache
- Blurry vision
- Hungry
- Irritability or confusion
- Faster heartbeat than normal
- Anxiety
- Numbness or tingling around lips



## Important

Not treating low blood sugar (HYPOglycemia) can lead to passing out for some people, and in severe cases can lead to seizures and/or death. Teach your family and friends what to do if you have low blood sugar. If you are unable to swallow or have passed out, you are not to be given anything to eat or drink. You need immediate treatment—they should call 9-1-1.

### Common Causes of Low Blood Sugar:

- More physical activity than usual
- Taking too much diabetes medicine or insulin
- Drinking alcohol
- Not eating enough food
- Skipping or delaying a meal

Tell your healthcare team if you have low blood sugar levels often. They may need to adjust your diabetes medicine or meal plan.

## Treating Low Blood Sugar

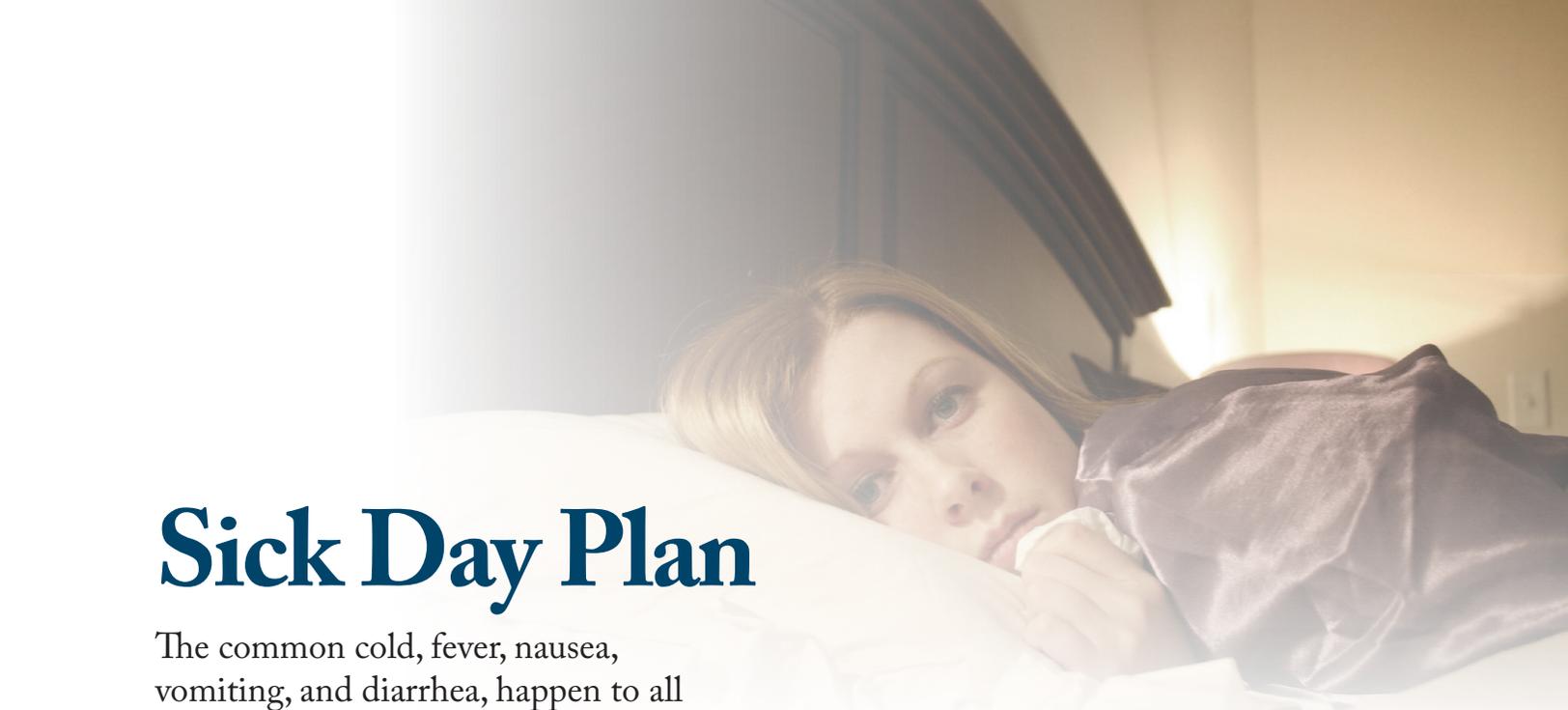
**If your blood sugar is below 70 mg/dL, you need to treat it right away. Follow the Rule of 15's.**

1. Eat or drink 15 grams of carbohydrates.  
Examples include:
  - 4 glucose tablets, **OR**
  - 1/2 cup of fruit juice or regular soda, **OR**
  - 1 tablespoon of sugar or jelly, **OR**
  - 2 tablespoons of raisins.
2. Wait 15 minutes. Retest your blood sugar level. If it is still less than 70 mg/dL, treat again. Retest again in 15 minutes. Repeat cycle until blood sugar returns to normal. Once in normal range, consider a small snack with carbohydrates and protein (example nut butter/apple or cheese/crackers) if your next meal is more than 1 hour away. This will help you prevent low blood sugar again.

## About glucagon

**Glucagon is a hormone that raises blood glucoses. Providers prescribe a form of this hormone to some patients to treat severe low blood sugar. If prescribed this medicine, review with your health care team how to use it and make sure your family members/friends know how to give it in case of an emergency.**





# Sick Day Plan

The common cold, fever, nausea, vomiting, and diarrhea, happen to all of us. For people with diabetes, these common illnesses can raise your blood sugar levels. Having a sick day plan can help you manage your blood sugar levels and get you back on your feet sooner. Ask your healthcare team about having flu and pneumonia shots to help keep you healthy.

## Important

**If an illness lasts longer than 48 hours (2 days) and your blood sugar levels are higher than your normal target range, call your doctor.**

**If you have Type 1 Diabetes, ask your healthcare team or provider how to prevent ketoacidosis. Ketoacidosis is when ketones (which make your blood more acidic) build up in your blood.**

### Make sure to follow these tips:

- **Follow your meal plan.** Your body needs energy to heal. If you have nausea or vomiting, choose liquids or soft foods such as soup, popsicles, crackers or toast to eat. These are easier on your stomach.
- **Drink plenty of fluids.** If you have vomiting or diarrhea, drink salty liquids such as broth, bouillon, tomato juice and broth-type soups. These will help prevent dehydration. If you have high blood pressure, first check with your healthcare team.
- **Take all your diabetes medicine and/or insulin as scheduled.** You may need to take extra insulin while you are sick. Your healthcare team can teach you.
- **Test your blood sugar levels often** (at least every 4 hours).

# 4 A Healthy Pregnancy

Getting ready for a healthy pregnancy starts before you are pregnant. With excellent care and good blood sugar control before and during pregnancy, you may help prevent diabetes related complications for you and your baby. Good blood sugar control can lower the risk of miscarriage and birth defects.

## If you plan to have a baby:

- See a provider for a complete check up and tell them if you are planning on getting pregnant.
- See a dietitian for a healthy meal plan.
- Get your blood sugar levels into the target range.
- Avoid alcohol, tobacco and drugs.
- Check with your doctor before using over the counter medicines.

## Once you are pregnant:

- Your meal plan will need to be adjusted.
- If you take diabetes pills, they may be changed to insulin shots.
- Target ranges for your blood sugar levels will change. Learn the new range and continue to test often.
- Keep all appointments with your doctor and diabetes team.
- Avoid alcohol, tobacco, and drugs.
- Check with your doctor before taking any over the counter medicines.

Taking care of your diabetes is a lot of work, but it will help you have a healthy pregnancy and a healthy baby!



# 5

# Diabetes Self-Care

## What You Can Do To Prevent Complications

**American Diabetes Association Guidelines to Prevent Complications from Diabetes** Ask your healthcare provider if you have had the following done and what your results are. Your results should be similar to those in the “goal” column.

Topic	Goal	Frequency	Why it is Important
<b>Blood Pressure</b>	Less than 140/90mmHg. Less than 130/80mmHg may be appropriate for certain individuals.	Every visit	Controlling blood pressure can help prevent heart disease, stroke and, kidney damage. You can lower your blood pressure by eating a healthy diet, being physically active every day, and avoiding salt and alcohol. Talk to your doctor about medicines to lower blood pressure.
<b>Hemoglobin A1c</b>	Less than 7%.  This may not apply to some people.	Every 3 months or at least 2 times per year if at goal	Checks for control of your blood sugars over the past 2-3 months.
<b>Low-Density Lipids (LDL) “Bad” Cholesterol</b>	The LDL goal varies depending on your risk factors. Talk with your doctor about what your target should be.	Yearly (more often if needed to achieve goal)	LDL cholesterol can stick to the inside wall of blood vessels. You can lower your LDL and raise your HDL by eating healthy, being physically active every day, and aiming for a healthy weight. Your doctor may prescribe medications, such as statins. It’s very important that you take these as directed, regardless of your LDL goal.
<b>High-Density Lipids (HDL) “Good” Cholesterol</b>	Greater than 40 mg/dL for men Greater than 50 mg/dL for women.	Yearly	HDL helps prevent cholesterol from building up in the arteries.
<b>Triglycerides</b>	Less than 150 mg/dL.	Yearly	Triglycerides are a form of fat in your blood that can raise your risk of heart disease. If your blood sugar is high, triglycerides can be high.
<b>Cholesterol</b>	Less than 200 mg/dL.	Yearly	Keeping your LDL low and raising your HDL, can lower your risk of heart attack and stroke.
<b>Kidneys/urine protein</b>	Less than 30 mcg/mg.	Yearly	Checks for protein in your urine, a sign of early kidney damage.



Topic	Goal	Frequency	Why it is Important
<b>Aspirin</b>	Men over 50, Women over 50	Each day (unless otherwise indicated)	This is recommended for patients with cardiovascular disease to help prevent complications. Talk to your doctor if you have family history of CVD, hypertension, smoking, dyslipidemia, or albuminuria.
<b>Comprehensive Foot Exam</b>	Healthy feet	Yearly; self-check regularly	This exam will check the health of your feet, including skin, muscles, and blood flow. This can prevent serious foot problems—even having your foot amputated.
<b>Dilated Eye Exam</b>	No retinal changes	Every 2 years if normal, yearly if abnormal	Checks for eye damage from diabetes, can prevent blindness.
<b>Influenza</b>	Flu shot	Yearly	Prevents a more severe form of the flu.
<b>Pneumonia</b>	Pneumovax vac- cine	Discuss with your healthcare team	Prevents pneumonia.
<b>Weight (BMI or Body Mass Index)</b>	BMI Percentile Less than 25	Yearly	Aiming for a healthy weight can help you feel better and keep you from getting many illnesses. Your healthcare team can help you find a healthy eating plan that's right for you.
<b>Smoking Cessation</b>	To quit smoking The Maine To- bacco Helpline: 1-800-207-1230	Discuss at every visit	Decreases premature death.
<b>Teeth</b>	Cleaning and exam	Every 6 months	Prevents tooth and gum disease.

# 5 Terms and Complications

Here is a list of terms and complications that you might hear often when you're dealing with diabetes. Do not hesitate to ask your care team questions if you ever feel confused or have questions about your diabetes.

## Complications:

Over time, high blood sugar may harm many parts of the body and can lead to other health problems (complications). If complications are found early they can often be addressed before they cause major damage. The good news is that these can hopefully be avoided if sugars are well controlled. It is recommended that people see their primary care provider at least every 3-6 months for routine screenings that help detect the risk for the following complications:

### ■ **Hardening of the arteries (atherosclerosis):**

This can lead to heart disease, heart attack, or stroke.

### ■ **Diabetic nephropathy (kidney disease):**

This type of kidney disease can lead to kidney failure.

### ■ **Diabetic retinopathy (eye disease):**

This type of eye disease can lead to vision loss.

### ■ **Diabetic neuropathy (nerve damage):**

This nerve disease can affect your internal organs. It can also affect how well you can sense touch and pain, especially in your feet. And it can cause sexual problems.

## Terms:

- **A1C:** A blood test that shows how well controlled your blood sugar has been over the past 2-3 months.
- **Carbohydrate:** Food is made up of carbohydrate, protein and fat. Carbohydrates breakdown inside the body to create glucose. Glucose (sometimes called sugar) is moved around the body and is the main source of energy for your body.
- **Certified Diabetes Educator/Diabetes Care and Education Specialists:** A health care provider (nurse, dietitian, pharmacist for example) who has focused training on diabetes, and has taken an exam to become certified to teach people about diabetes.
- **Glucagon:** A hormone that is made by the pancreas that helps the body break down stored sugar for energy.
- **Glucose:** Another term for “sugar”.
- **Hypoglycemia:** Low blood sugar.
- **Hyperglycemia:** High blood sugar.
- **Insulin:** A hormone that is made by the pancreas. Insulin helps bring sugar into the cells for storage and energy.
- **Pancreas:** An organ in the body with many jobs. It releases the hormones glucagon and insulin to help use and maintain normal blood sugar.
- **Prediabetes:** A condition where blood sugar is not normal, but not high enough to be called diabetes. Often this can be reversed with diet and exercise.

# My Action Plan



Once you have set your goals, use this next step to take action.

Name \_\_\_\_\_ Date \_\_\_\_\_

I have worked with another provider to set a goal.

## take action

### 1 What I Will Do

#### Choose One Goal:

I will \_\_\_\_\_

Examples: increase physical activity; take my medicines; make healthier food choices; reduce stress; reduce tobacco use.

#### Choose One Action:

I will \_\_\_\_\_

Examples: walk more; eat more fruits and vegetables.

### 2 How Much / How Often

**How much:** \_\_\_\_\_

Examples: 20 minutes.

**How often:** \_\_\_\_\_

Examples: three times a week on Monday, Wednesday, Friday.

### 3 Confidence Level

Circle a number to show how sure you are about doing the activity.

Try to choose an activity that you are a 7 or above.

1 2 3 4 5 6 7 8 9 10

*Not sure at all*

*Somewhat sure*

*Very sure*

My signature \_\_\_\_\_

Healthcare provider signature \_\_\_\_\_

# 6 Resources

## Financial Resources

It can be costly to take care of yourself when you have diabetes. MaineHealth has different programs to help you apply for health insurance, lower your medicine costs, access care, and make taking care of yourself more affordable.

## Patient Assistance Line

MaineHealth Patient Assistance Line staff work with patients to reduce barriers that are keeping them from staying healthy. This is done over the phone or in person. This includes help with:

- Applying for the Supplemental Nutrition Assistance Program (SNAP)
- Housing issues
- Social service connections
- Applying for health care coverage
- Other issues that are keeping you from being healthy.

The Patient Assistance Line is located at 241 Oxford Street in Portland, but staff can help any provider or patient within the MaineHealth network of care. You may call (833) MHHELP1 (833-644-3571) or send an email to: [patientassistline@mainehealth.org](mailto:patientassistline@mainehealth.org)

## MedAccess

MedAccess is a statewide program that helps anyone who is struggling to pay for medicines. MedAccess staff will work with you to lower your medicine costs. There are many programs you may qualify for.

To enroll, or for more information, call:  
**877-275-1787 (toll free) or 207-662-7968**

For more information about financial help, please visit:  
<https://mainehealth.org/healthy-communities/access-to-care>  
Or call the Patient Assistance Line at **833-644-3571**

# 6 Resources

## Education and Support

### Get education as soon as possible!

Check for certified diabetes education programs. These programs are covered by Medicare (though there may be guidelines on when and how many hours), and they are covered by most commercial insurance companies.

### You can find accredited and certified programs in your area by using this website:

- [cdc.gov/diabetes/managing/education.html](https://cdc.gov/diabetes/managing/education.html)

### Other support:

In addition to certified education programs, your community might offer education and support programs. These are not the same as certified education programs, but they may still be a big help. Ask your diabetes educators for information in your area.

### Call assistance lines for more resources; such as help with transportation, social services, housing or food insecurity, etc.

- MaineHealth patients can call the Patient Assistance Line at: **1-833-644-3571**
- Anyone can call **2-1-1** for this type of assistance in any state.

## National Resources

### American Diabetes Association

- [diabetes.org](https://diabetes.org)
- (1-800) 342-2383

### Academy of Nutrition and Dietetics

- [eatright.org](https://eatright.org)
- (1-800) 877-1600

### CDC Diabetes Education and Support

- [cdc.gov/diabetes/managing/education.html](https://cdc.gov/diabetes/managing/education.html)

### National Institutes of Health, Diabetes Program

- [niddk.nih.gov/health-information/diabetes](https://niddk.nih.gov/health-information/diabetes)

## Maine Resources

### Maine Diabetes Prevention and Control Program

- [maine.gov/dhhs/mecdc/population-health/dcp/index.htm](https://maine.gov/dhhs/mecdc/population-health/dcp/index.htm)
- (207) 287-5380

### MaineHealth Living Well with Diabetes Program

- Visit [mainehealth.org/livingwellwithdiabetes](https://mainehealth.org/livingwellwithdiabetes) or ask your provider for a referral, and join a FREE virtual class.
- Email: [dsmp@mainehealth.org](mailto:dsmp@mainehealth.org)
- Phone: 207-661-7294

### MaineHealth Health Education

- [mainehealth.org/healthy-communities/health-education](https://mainehealth.org/healthy-communities/health-education)

### Acknowledgments

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