Living with Diabetes

A Self-Care Manual

Diabetes Education: 425-339-5431

everettclinic.com

The Everett Clinic
For the whole you.

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The Everett Clinic
For the whole you.

Your Healthcare Team

Primary Care Provider (Physician or Nurse practitioner)

NAME_____

TELEPHONE NUMBER _____

Eye Doctor (**Ophthalmologist** and/or **Optometrist**)

NAME_____

TELEPHONE NUMBER _____

Foot Doctor (**Podiatrist**)

NAME_____

TELEPHONE NUMBER _____

Dentist

NAME_____

TELEPHONE NUMBER _____

Dietitian

NAME_____

TELEPHONE NUMBER _____

Diabetes Educator

NAME_____

TELEPHONE NUMBER _____

Endocrinologist (or **Diabetologist**)

NAME_____

TELEPHONE NUMBER _____

Other

NAME_____ TELEPHONE NUMBER _____

NAME_____ TELEPHONE NUMBER _____

NAME_____ TELEPHONE NUMBER _____

Living with Diabetes

At The Everett Clinic, we're here for the whole you. If you've been diagnosed with diabetes, your team of healthcare providers is here to help you understand what that means short-term and to plan for your future health. What to expect:

- You may be referred to diabetes education classes. To schedule, call: 425-339-5431.
- Your nurse or medical assistant may be more directly involved in your care.
- Doctor's appointments may be more frequent during the initial care of your diabetes, or if the control of your blood sugar levels is not optimal.
- You will be asked to set goals for improved nutrition, regular exercise and overall management of your diabetes.

Patients with diabetes make day-to-day decisions about their disease. We call this self-care. Your Everett Clinic healthcare team will help you develop skills to achieve the best possible outcome with your diabetes.

About This Book

This book outlines the basic diabetes care guidelines recommended by The Everett Clinic and offers advice on self-care for Type 2 diabetes. It is designed for both recently diagnosed patients and those who have had diabetes for some time. You and your healthcare team can use this book and the worksheets it contains to set goals, track your progress and understand your diabetes.

The Diabetes Manual also contains a glossary with helpful definitions. Words contained in the glossary will be in **bold** the first time they are mentioned in each section.

Diabetes Education Program

To further enhance your diabetes self-care knowledge, we also strongly encourage you to join our Diabetes Education program.

The Diabetes Education program provides you with:

- An individualized approach to meal planning and managing your diabetes
- A strong focus on self-care
- An opportunity to interact with others who also have diabetes
- An opportunity for continued education and feedback related to your diabetes

Classes are offered throughout the week, including some evenings. To contact the Diabetes Education department, call 425-339-5431.

This care manual is adapted in part from: Centers for Disease Control and Prevention "Take Charge of Your Diabetes" 4th edition Atlanta: U.S. Department of Health and Human Services, 2007

ABOUT DIABETES

What is Diabetes?

Diabetes* is an illness that affects the normal digestion process of the foods you eat, mainly glucose (or **carbohydrates**). To understand diabetes, it helps to first have a good understanding of normal digestion.

Normal Food Digestion

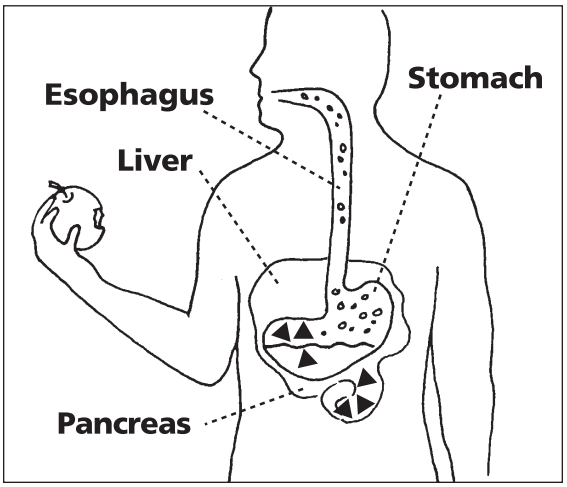
- When you eat, your food is broken down into a form of sugar called glucose (the body's main fuel). This sugar enters the blood stream and stimulates the **pancreas**, a digestive gland located near the stomach and intestine. (See Fig. 1)
- Once stimulated, the pancreas responds by releasing digestive juices into the intestine and **insulin** into the bloodstream. (See Fig. 2)
- Insulin is a **hormone** that lowers the level of **blood glucose** by allowing it to leave the bloodstream and enter the cells, where it is used for fuel to provide energy. Insulin is the key that unlocks the cell and lets the glucose in. (See Fig. 3)

Diabetes

Diabetes is a disorder that occurs when either the release of insulin from the pancreas **(insulin deficiency)** or the use of insulin by the cells **(insulin resistance)** is not occurring in a normal way. This allows the sugar to build up in the blood stream. Diabetes is often hereditary. Eating "too much sugar" can worsen the effects of diabetes but does NOT cause it.

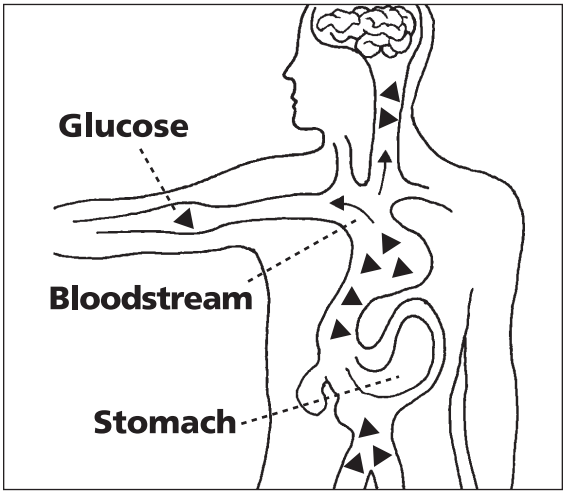
FIGURE 1

Food = Energy



Foods You Eat

- Carbohydrate: Starches and sugars such as grains, starchy vegetables, legumes, milk and yogurt, fruit and sweets
- Protein: Meats, cheese, eggs
- Fat: Butter, oils, margarine, salad dressings
- See pages 11–13 for more details on nutrition



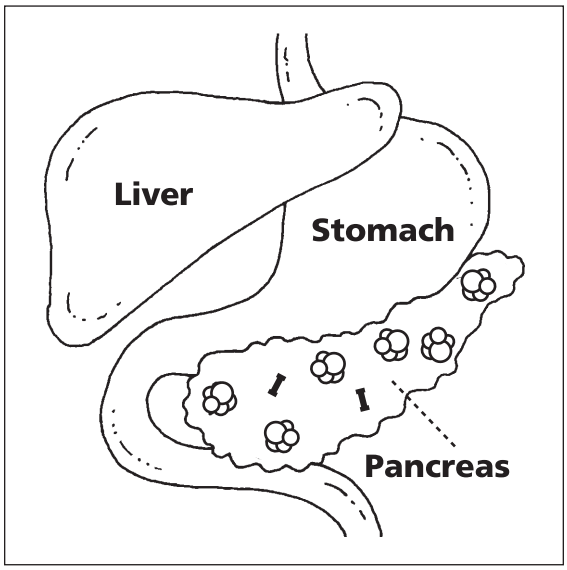
Energy You Need

- Food is changed into glucose, a form of sugar
- Glucose is...
  - absorbed into your blood
  - carried throughout your body
  - used by cells for energy

** Words in* ***bold*** *are defined in the Glossary at the back of the book.*

FIGURE 2

Insulin and the Pancreas



- The pancreas produces insulin.
- With diabetes, the pancreas doesn't make enough insulin (insulin deficiency) or can't use insulin properly (insulin resistance).
- Glucose builds up in the blood, resulting in high blood sugar or diabetes.

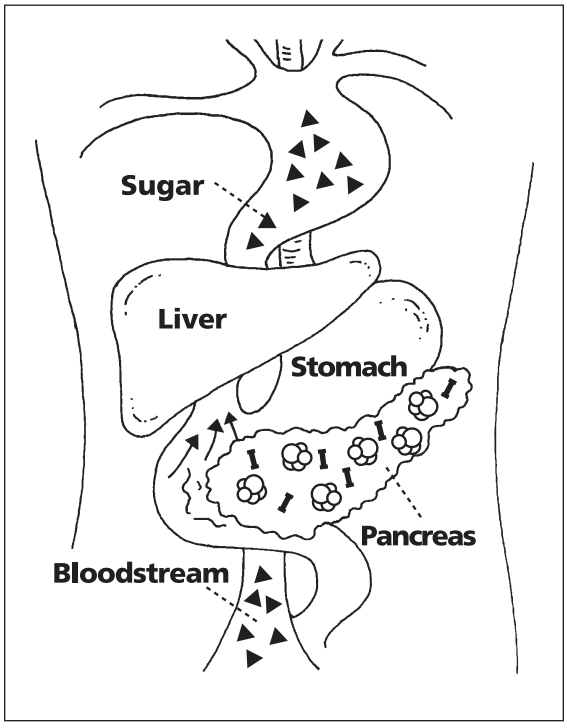
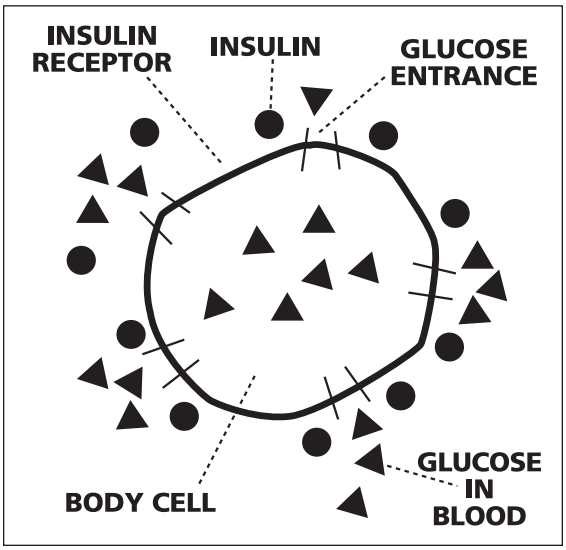


FIGURE 3

How Insulin Works in the Body

When there is enough insulin in the blood to fill the insulin receptors, the receptors open the glucose entrances. Glucose enters the cell and is used for energy. Blood glucose level drops.



Different Types of Diabetes

Type 1 diabetes is sometimes referred to as juvenile-onset diabetes. Type 1 diabetes frequently develops in childhood or early adulthood. This is a disorder in which the body's immune system destroys the insulin-producing cells (**beta cells**) in the pancreas. People with Type 1 diabetes almost always have to take insulin for the rest of their lives.

Type 2 diabetes is sometimes referred to as adult-onset diabetes; 90% of people with diabetes in the U.S. have Type 2 diabetes. Although it is considered non-insulin-dependent, most people with Type 2 diabetes will eventually need treatment with insulin to help keep blood glucose levels down.

In Type 2 diabetes, the pancreas makes some insulin, but there is insulin resistance. The cells are resistant to the insulin and will not allow enough glucose to enter from the bloodstream causing the blood glucose level to remain elevated.

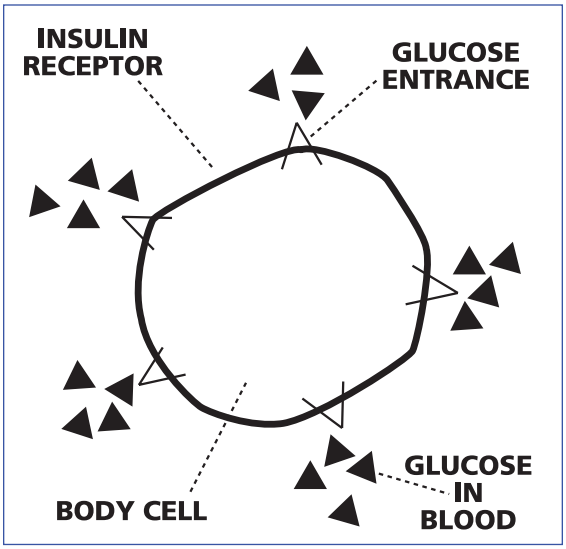
- Some people with insulin resistance can make enough insulin to overcome the resistance and maintain normal blood glucose levels (generally because they have higher than normal levels of insulin in the blood).
- When an individual cannot make enough insulin to overcome the insulin resistance, the blood glucose level rises above normal (See Fig. 4).
- People with Type 2 diabetes are often overweight. For some, weight loss may help restore normal blood glucose levels without the use of medication.

Another type of diabetes is **gestational diabetes**, found during pregnancy. See page 27 for more information on diabetes and pregnancy.

FIGURE 4

Too Little or No Insulin is Produced

When there is not enough insulin in the blood to fill the insulin receptors, the glucose entrances stay closed. Glucose builds up in the blood. Blood glucose level rises.



How Diabetes is Diagnosed or Discovered

A person may have symptoms of diabetes such as excessive thirst and urination, having to get up multiple times during the night to urinate, blurred vision, weight loss, fatigue or numbness, burning or tingling in the feet. These symptoms may last for years before the diagnosis of Type 2, but usually only days to weeks before the diagnosis of Type 1.

Diabetes may be suspected because of **risk factors** including:

- Family history of diabetes
- 45 years of age or older
- Overweight (BMI > 25 kg/m2)
- Habitual physical inactivity
- Member of a high-risk ethnic population (e.g., African American, Latino, Native American, Asian American, Pacific Islander)
- Previously identified pre-diabetes (impaired fasting glucose or impaired glucose tolerance)
- History of gestational diabetes or delivery of a baby weighing over 9 lbs
- **High blood pressure** (> 140/90 mmHg)
- HDL cholesterol level < 35 mg/dl (0.90 mmol/l) and/or a triglyceride level > 250 mg/dl (2.82 mmol/l)
- Polycystic ovarian syndrome
- History of vascular disease

Where there are risk factors, regular screening of blood glucose level (perhaps yearly) or checking blood glucose level when suspicious symptoms develop is advisable.

Some people have no symptoms and are instead diagnosed as a result of abnormal lab results, such as glucose found in the urine or high blood glucose levels.

Diagnostic Criteria (non-pregnant adults):

- Any blood glucose level above 200 in a person with typical symptoms
- Fasting blood glucose level of 126 or greater on two different occasions
- Glucose tolerance test with value of over 200 at two hours after ingesting 75 grams of glucose
  - Test must be done properly and must show abnormal results twice before diagnosis is made
  - In usual practice, a glucose tolerance test is not necessary
- A1C level of 6.5 or greater on two different occasions

Feelings & Concerns About Having Diabetes

Living with diabetes is not easy. It is normal to feel troubled about it. Tell your healthcare team how you feel. Point out any problems or obstacles you see with your diabetes care plan. Your provider or **diabetes educator** may be able to help you think of ways to overcome these problems.

Family & Friends

Talk about the stresses you feel at home, school or work. How do you cope with these pressures? If your feelings are getting in the way of taking care of yourself, you need to ask for help from your family and friends.

Support Groups

It helps to talk with other people living with diabetes. Consider joining a diabetes support group. In **support groups**, people who have just found out they have diabetes can learn from people who have lived with it for a long time. People can talk about and share how they deal with their diabetes. They can also talk about how they take care of their health, how they prepare food and how they get physical activity. Family members who do not have diabetes may want to join a support group too. Ask the Diabetes Education department for a current list of local support groups or call the local ADA (more information provided on page 10).

Counseling Opportunities

One-on-one and family counseling sessions can be very helpful. Ask your provider to assist you in finding a counselor.

Remember it's okay to ask for help. You don't have to be in this alone.

DIABETES CARE

Controlling Your Diabetes

Diabetes is a life-long illness best treated with self-care, close interaction with your healthcare team, education and discipline. You are responsible for your own care. Proper diet and exercise are vital. Some people may also need medications. The use of medications will be discussed when you attend diabetes education classes or meet with a **diabetes educator**. Because diabetes care is self-administered, you have to know what you are doing and why.

This handbook, your healthcare provider and our diabetes educators are here to help you:

- Understand diabetes so you can take a proactive approach
- Prevent or minimize problems or complications
- Learn how to deal with problems if they do occur

Controlling Your Blood Glucose

Controlling your **blood glucose** is one of your most important responsibilities. Appropriate blood glucose levels help you feel well and have been proven to prevent or minimize long-term complications.

- Results from the Diabetes Control and Complications Trial came out in 1993 showing that better control of blood glucose definitely decreases long-term complications of diabetes in people with **Type 1 diabetes**.
- Results from the United Kingdom Prospective Diabetes Study came out in 1998 showing similar results in people with **Type 2 diabetes**.

Reducing Risk Factors

Being aware of other health concerns is especially important for people with diabetes. You can reduce your cardiovascular risks by:

- Quitting smoking
- Achieving a desirable **body weight**
- Exercising and staying active
- Monitoring your **blood pressure** and **cholesterol**
- Eating a healthy, balanced **diet**

Your healthcare team can help you with your efforts to quit smoking, start a new exercise routine, and more. Don't be afraid to ask for help.

The Everett Clinic Diabetes Care Guidelines

The following recommendations are our general diabetes care guidelines. Your **primary care provider** may adjust these guidelines based on your individual needs. You can also develop your own goals and track your progress using the information on pages 33–34.

Upon diagnosis and as needed:

- Diabetes education with **dietitian** and diabetes nurse educator

At every office visit:

- Review home blood glucose levels
- Blood pressure
- Weight
- Foot exam

Every 3–6 months:

- Hemoglobin A1c Test

Once a year:

- Foot check of circulation and nerves
- Cholesterol (check blood fats)
- Urine test (protein)
- Dilated eye exam
- Dental exam
- Flu shot
- Pneumonia shot (if you've never had one)

Consequences of Untreated Diabetes

Some people with Type 2 go for months or years without treatment. There can be adverse consequences of this, both short term and long term.

Short-term consequences:

- Symptoms may include increased thirst and urination, fatigue, weight loss or blurring of vision.

Long-term consequences (these develop over the years)

- Increased risk of **heart attack**, the leading cause of death among people with diabetes
- Increased risk of **strokes** and other circulatory problems
- Possible diabetic complications including:
  - **Microvascular** changes in the retina known as **retinopathy** develop gradually and without warning. These changes can cause sudden blindness in an eye, usually due to a hemorrhage from the retina. Retinopathy is the most common cause of blindness in the U.S. (see page 22).
  - Nephropathy, or **diabetic kidney disease**, is the most common cause of kidney failure in the U.S. (see page 24).
  - Malfunction of the nerves, or **neuropathy**, usually occurs first in the feet (see page 23). Combined poor circulation and neuropathy in the feet make individuals with diabetes more susceptible to serious **ulcers** and infections which require surgery and amputation. (The vast majority of amputations in the U.S. are in people with diabetes.)

Managing Sick Days

When you are ill, your blood glucose will tend to run higher. You will need to take special care of yourself.

Keep Eating

Try to eat the same amount of food you usually do. If you are having trouble doing this, use the list of **carbohydrate** choices during illness. Try to consume enough from this list to replace what you normally eat.

Keep Taking Medicine

Be sure to keep taking your **diabetes pills** or **insulin**, even when you don't feel well enough to eat. Your medication doses may need to be adjusted when you are ill if your blood glucose levels are running too high or too low. Consult your provider regarding adjustments.

Drink Extra Liquids

Try to drink at least 1/2 cup (4 ounces) to 3/4 cup (6 ounces) every 30–60 minutes.

Monitor

- Test your blood glucose at least every four hours. (If you have **Type 1 diabetes** and your glucose is 240 or higher, test your urine for **ketones**. Ketones are chemicals your liver makes when there's not enough insulin in the blood. You can buy ketone test strips at a drug store.)
- Weigh yourself every day. Losing weight without trying is a sign of **high blood glucose**.
- Check your temperature. A fever may be a sign of infection.

Call for Help

You should call your provider or go to an emergency room or Walk-In Clinic if any of the following happen:

- Unable to take fluids for over 12 hours
- Blood glucose level is lower than 60 mg/dl or stays over 300 mg/dl
- You have moderate to large ketones in urine
- You're having trouble breathing
- You continue to feel worse

Possible Carbohydrate Choices During Illness

(Each has approximately 15 grams of carbohydrate)

1/2 cup unsweetened juice

1/2 cup carbonated beverage containing sugar (ginger ale, 7UP, cola, etc.)

1 twin popsicle

1/2 cup hot cereal

1/2 cup diet canned fruit

1 cup milk

1 cup chicken noodle or vegetable soup

1 cup cream soup

1/3 cup sherbet

1/2 cup ice cream

1 slice toast with cinnamon

Milk toast
(1 cup milk and 1 slice toast = 30 g carb.)

1/3 cup sweetened gelatin (regular JELL-O)

9 Life Savers

8 lemon drops

10 jelly beans

5 saltine crackers

1/2 cup natural applesauce

1/2 cup sugar-free pudding

RESOURCES

Diabetes Resources

The American Diabetes Association (ADA)

The American Diabetes Association is a major organization working to promote research and education on diabetes at all levels (from laboratory to medical practice to the daily lives of people with diabetes).

- National American Diabetes Association • 1-800-DIABETES • diabetes.org
- Consider joining and supporting the ADA
- Make use of their information and educational resources
- Watch for any community activities of importance for people with diabetes
- Check with your local ADA office for a listing of current support groups in the area
  - Local American Diabetes Association Office
    2815 Eastlake Ave E #240, Seattle, WA 98102 • 206-282-4616

Sharps Disposal Resource

- Information on sharps disposal (lancets and needles)
- Snohomish County Public Works – Solid Waste Management • 425-388-3411

National Resources

- American Dietetic Association • 1-800-877-1600 • eatright.org
- American Heart Association • 1-800-242-8721 • heart.org
- Center for Disease Control • 1-800-CDC-INFO • cdc.gov/diabetes
- dLife • dlife.com
- MedicAlert Tags • 1-800-432-5378
- Medline Plus • nlm.nih.gov/medlineplus/diabetes.html
- National Diabetes Education Program • 301-496-3583 • ndep.nih.gov
- National Institute of Diabetes Information Library • diabetes.niddk.nih.gov

NUTRITION

Basic Nutrition Guidelines

Nutrition guidelines for diabetes have changed over the past few years. Instead of offering one specific diet for all people who have diabetes, there are now general guidelines which focus on designing individualized nutrition plans to fit your lifestyle.

Beginning Meal Planning

A **meal plan** for a person with diabetes is very similar to what most healthy individuals should be following. You do not need to eat special foods. The foods you eat are good for your family and friends too!

- Choose foods that are low in added sugar, fat and salt.
- Choose foods that are high in fiber (fruits, vegetables, whole grains and beans).
- Try to eat regularly throughout the day, as opposed to skipping meals.
- Watch portion sizes! Try to spread out the amount of food you eat evenly throughout the day.
- Keep a food diary. Write down when, what and how much you eat for a few days. (There is a sample meal plan for you to use on page 13.)

Carbohydrates, Proteins & Fats

Foods are made out of a combination of **carbohydrates**, proteins and fats. All of these provide calories used by your body for energy.*

CARBOHYDRATES

Carbohydrate foods have the most effect on your **blood glucose**. Up to 50% of the calories you consume can come from carbohydrate foods, such as bread, cereals, pasta, rice, potatoes, corn, milk and fruit. These foods provide important nutrients. Other sources of carbohydrate include sugar, honey, cookies, ice cream, regular soda and candy. These foods do not have many nutrients, but can be worked into your meal plan on occasion.

PROTEIN

Typically about 15–20% of the calories you consume should be from protein foods. Proteins include meats, fish, poultry, eggs, cheese, peanut butter and legumes (nuts, seeds and beans).

FAT

Less than 30% of the calories you consume should be from fats. Fat sources include margarine, butter, oils, mayonnaise and salad dressings. Protein foods like eggs, peanut butter and cheese are also high in fat, as well as some carbohydrate foods like ice cream, pastries and chocolate.

Remember, some fat is necessary—our body needs it! But too much fat contributes to weight gain and increased risk of heart disease.

**While alcohol also contributes calories, alcohol consumption should be minimized and discussed with your provider.*

What is a serving?

Grains, Beans and Starchy Vegetables

- 1 small slice of bread
- 1/3–1/2 cup cooked cereal, pasta or rice
- 1 small potato
- 1/2 cup peas, corn or beans or 1 cup winter squash

Fruits

- 1/2 cup (4 oz) canned fruit or fruit juice
- 1 small piece of fresh fruit (tennis ball size)
- 1/2 banana
- 12–15 grapes

Vegetables

- 1/2 cup cooked or 1 cup raw

Meat and Protein Foods

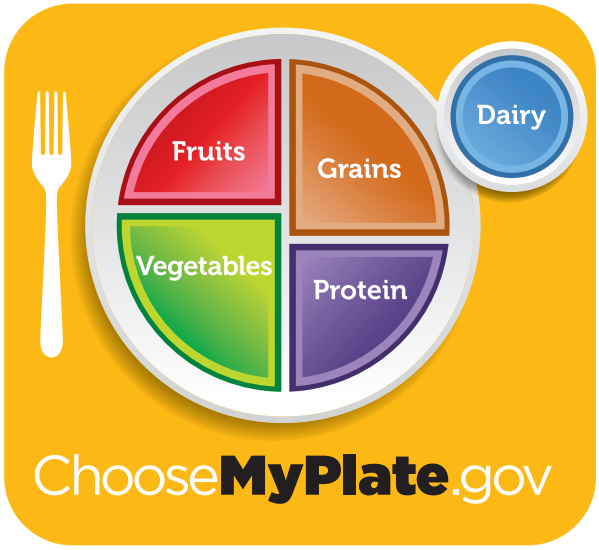
- 3–4 oz cooked lean meat (the size of a bar of soap)
- 1 oz of meat is equal to:
  - 1 egg
  - 1 oz cheese
  - 1/4 cup tuna or cottage cheese
  - 2 tbsp peanut butter

Milk

- 1 cup (8 oz) milk or 1 cup artificially sweetened yogurt

Fat

- 1 tsp margarine, butter, oil or mayonnaise
- 1 tbsp salad dressing



U.S. Department of Agriculture

Sample Meal Plan

Remember that this is only a sample! You may not like the foods listed here, or the portions may be too much or too little for you (this sample plan is approximately 1,500 calories). Your **dietitian** will help you individualize your meal plan to meet your needs.

BREAKFAST	Sample 1	Sample 2
1 serving fruit	Small orange	1/2 grapefruit
2 servings grain	2 slices toast	1 cup cooked oatmeal
1 oz protein	2 tbsp peanut butter	1 hardboiled egg
1 serving milk	1 cup milk Coffee	1 cup milk Tea
LUNCH		
1 serving fruit	12 grapes	1 small apple
2 servings grain	Sandwich bread	2 6-inch tortillas
1 serving protein	3 oz sliced turkey	3 oz lean roast beef
1 serving fat	1 tsp mayonnaise Mustard	1 tsp mayonnaise Mustard
1 serving vegetable	Carrot sticks	Lettuce and tomatoes
1 serving milk	8 oz milk	1 cup yogurt
Roll roast beef, mayo, mustard, lettuce and tomato in tortillas.		
DINNER		
2 servings vegetable	1 cup salad greens 1/2 cup cooked broccoli	1 cup stir-fried veggies
1 serving fat	1 tbsp salad dressing	1 tsp olive oil
1 serving protein	4 oz baked chicken	3 oz diced chicken breast 1 oz grated parmesan cheese
3 servings grain	1 cup cooked rice	1 1/2 cup cooked pasta
1 serving fruit	1/2 cup canned peaches	1 cup sliced strawberries

Daily Servings:

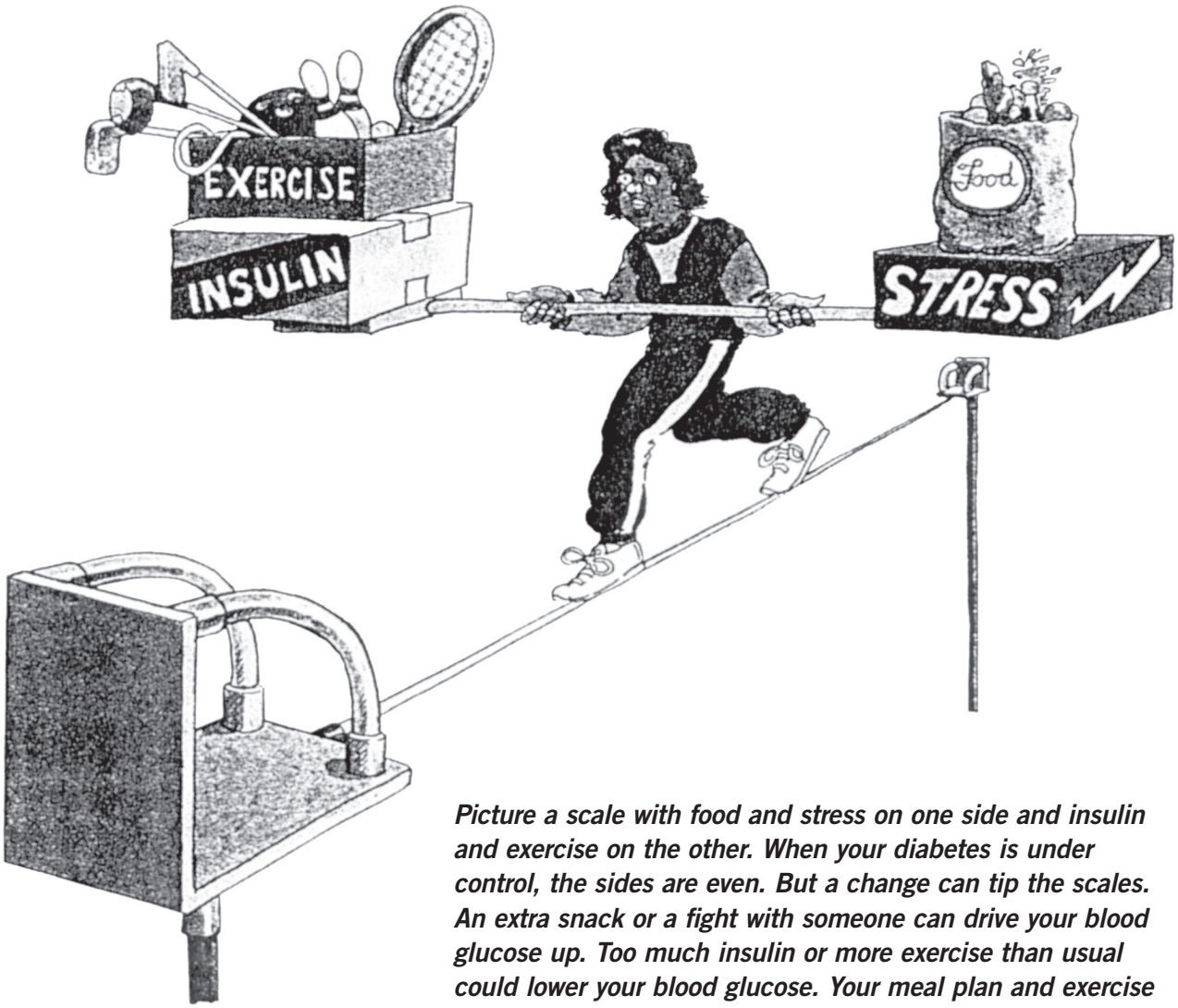
Grains: 7
Fruits: 3
Vegetables: 3
Milk: 2
Meat: 2
Fats: 2

BLOOD GLUCOSE

A Balancing Act

There are four things that can make your blood glucose go up or down:

- **FOOD**
  Food makes your **blood glucose** go up. Following your **meal plan** will keep it from going up too high or staying high for too long.
- **DIABETES PILLS OR INSULIN**
  Pills and **insulin** make your blood glucose go down.
- **EXERCISE**
  Exercise usually makes your blood glucose go down. Your blood glucose goes down while you are exercising and even after you stop the activity.
- **STRESS**
  Stress on your body, such as being tired or sick, can make blood glucose go up. Life stresses (such as anger, anxiety or worry) can make it more difficult to follow self-management practices.



Picture a scale with food and stress on one side and insulin and exercise on the other. When your diabetes is under control, the sides are even. But a change can tip the scales. An extra snack or a fight with someone can drive your blood glucose up. Too much insulin or more exercise than usual could lower your blood glucose. Your meal plan and exercise can help you keep things balanced.

Keeping Track of Your Blood Glucose

Home Monitoring

Home monitoring of blood glucose is a major advancement in diabetes care. A glucose meter measures the blood glucose level in a drop of your blood, which you apply to a test strip. Your healthcare team can help you find the best glucose meter to fit your needs.

Monitoring your blood glucose at home will help you stay in control of your diabetes. Regular, systematic monitoring helps you:

- Accurately identify blood glucose levels that are too low or too high
- Track your progress towards overall treatment goals
- Learn how to achieve the desired degree of control with treatment
- Understand how certain foods, activities or situations impact your blood glucose levels

Target Ranges

An ideal blood glucose is typically 70–100 before meals. However, appropriate target ranges vary among individuals. This target range may not be practical or safe for you. Your provider can help you set a personalized goal based on your overall health.

- **American Diabetes Association target blood glucose range:**
  - 80–130 before eating (checked on finger or alternate site)
  - Less than 180 one to two hours after eating (only checks on finger are accurate after a meal)

Without monitoring, most people aren't able to tell where their blood glucose is between 70 and 200. However, when blood glucose levels are below 70 or above 200, symptoms typically occur that alert you to the imbalance (see pages 17–19 for more information).

Factors Affecting Blood Glucose Levels

Increases Blood Glucose

1. Food
2. Stress
3. Illness

Decreases Blood Glucose

1. Diabetes Medicines (insulin, pills)
2. Exercise (in most cases)
3. Weight Loss (for Type 2 diabetes)

Charting

Charting your blood glucose measurements in a logbook can help you identify patterns and trends. Some monitors allow you to download information to your computer, which can simplify the process, but is not a necessity. A log book is usually provided with your monitor. Additional copies can be obtained through your provider, a pharmacy or a monitor company.

Charting gives you the chance to make notes on your food intake, activity, medication doses and other special circumstances. This record can be useful for you and your provider to review over the months. If you're having trouble reaching your goals, your healthcare team can use the information in your logbook to help you look for ways to be more successful. Be sure to bring your logbook with you to healthcare appointments.

Hemoglobin A1c Tests

A **hemoglobin A1c** test uses blood drawn from a vein in your arm to provide a summary of your diabetes control for the past few months. A hemoglobin A1c test measures how much glucose has been sticking to the hemoglobin in your red blood cells. Red blood cells in your body are replaced every three months, so the A1c test averages how high glucose levels have been over the life of your cells.

Normal hemoglobin A1c is 4–6% for people without diabetes. A common goal for people with diabetes is an HbA1c under 7%, however, your provider may set a different goal for you based on your overall health. Ask your provider to help you set a goal and write it down on pages 30–31.

The higher your A1c, the higher your average blood glucose has been over the past three to four months. If your hemoglobin A1c is high, work with your team to adjust your balance of food, physical activity and medication.

You should have a hemoglobin A1c test at least twice a year, or more frequently if your provider feels it is appropriate. Record your results on pages 30–31 to help you and your diabetes care team track your average blood glucose control.

Hypoglycemia (Low Blood Glucose)

FIGURE 6

CAUSES:

Too little food, too much insulin or diabetes medicine, or extra exercise

ONSET:

Sudden, may progress to insulin shock

BLOOD SUGAR:

Below 70 mg/dL
Normal range: 70–100 mg/dL without diabetes

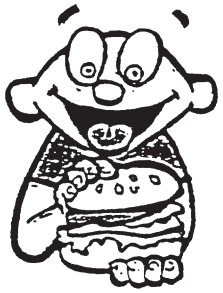
SHAKING

FAST HEARTBEAT

SWEATING

ANXIOUS

DIZZINESS



HUNGER

IMPAIRED VISION

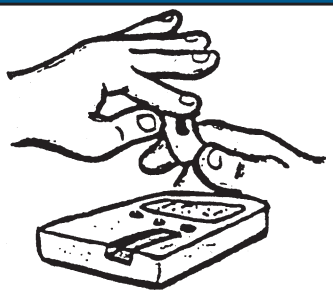
WEAKNESS, FATIGUE

HEADACHE

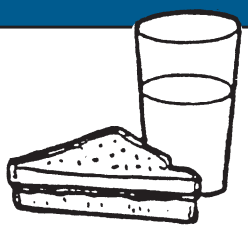
IRRITABLE

What Can You Do?

Drink 1/2 cup orange juice or milk, **OR** eat several jelly beans or hard candies.



TEST BLOOD GLUCOSE
If symptoms persist, call your doctor.



Within 30 minutes after symptoms go away, eat a light snack (1/2 peanut butter or meat sandwich and 1/2 glass of milk).

How to Take Care of Hypoglycemia

Rule of 15

1. Test your blood glucose, if possible.
2. If it is below 70mg/dl OR you are having signs of hypoglycemia but cannot test, **eat 15 grams** of "quick" carbohydrate. The following work well:
   - 4–6 oz (1/2–3/4 cup) Orange Juice or Apple Juice
   - 4–6 oz (1/2–3/4 cup) Regular Soda Pop
   - 3 tsp honey
   - 3–4 tsp sugar
   - 5–6 large jelly beans
   - 5–6 small gum drops
3. Relax for 15 minutes. **Don't** lay down and go to sleep.
4. Test your blood glucose again.
   - If it is below 70 mg/dl, repeat steps 2–4.
   - If it is normal, go to step 5.
5. If your next meal is more than 30 minutes away, eat a snack that combines protein and carbohydrate. It's important to have a snack or meal after a low to keep your blood glucose from dropping again. Some snack ideas:
   - Half of a peanut butter sandwich (or meat sandwich)
   - Package of cheese or peanut butter crackers
   - Sugar free yogurt
   - Cheese and crackers
   - Tunafish and crackers
   - Egg and toast
   - Cottage cheese and fruit
6. If your blood glucose is still low after two carbohydrate treatments, call your provider for recommendations. If you have three consecutive hypoglycemic episodes, your therapy may need adjustment.
7. Try to understand why the hypoglycemia happened and how it can be prevented in the future.
8. If hypoglycemia is happening without easy explanation, notify the provider prescribing your medication.

Hyperglycemia (High Blood Glucose)

CAUSES:

Too much food, too little insulin, illness or stress

ONSET:

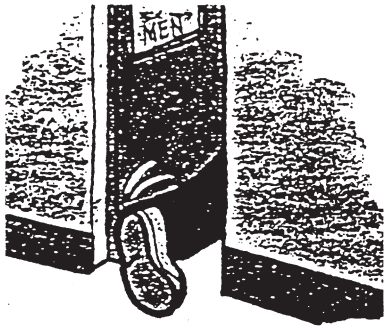
Gradual, may progress to diabetic coma

BLOOD SUGAR:

Above 200 mg/dL

FIGURE 7

EXTREME THIRST



FREQUENT URINATION

DRY SKIN

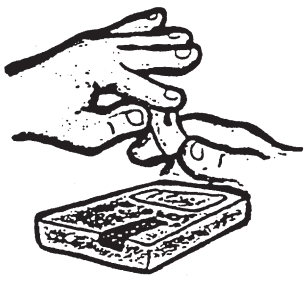
HUNGER

BLURRED VISION

DROWSINESS

NAUSEA

What Can You Do?



TEST BLOOD GLUCOSE

If over 250 mg/dL for several tests:
CALL YOUR DOCTOR

WEIGHT LOSS & EXERCISE

Weight Loss Guidelines

Weight loss can help improve your **blood glucose** control as well as help decrease your risk of heart disease, **high blood pressure** and other diseases.

A weight loss of 5–7% (usually 10–20 pounds) regardless of starting weight has been shown to have great benefits in improving blood glucose control and reducing **blood pressure**. It is important to have a *realistic* weight goal. Traditional height/weight charts are not realistic for many people. Your diabetes care team can help you to determine a goal weight.

To lose weight, decrease the amount of calories you take in (food) and increase the amount of calories you expend (exercise). Everyone loses weight at a different rate. **A healthy, realistic goal is to lose one half to two pounds per week.**

Food Intake

Reducing calories by 200–300 per day will help result in weight loss. Some ways to reduce calories include passing up a second helping, cutting down on all portion sizes and saying no to dessert.

For most people, we do not recommend low-calorie weight-loss diets below 1,000 calories, or diets which eliminate an entire food group. It's important to develop a weight-loss plan that is realistic and to follow it as part of your lifestyle. Your **dietitian** can help you develop a plan that works for you.

Weight Loss Tips:

- Drink at least 6–8 cups of water per day.
- Take your lunch to work with you at least once or twice a week instead of eating out.
- Only grocery shop with a list and make sure that you aren't hungry when shopping.
- Have a healthy snack before going to run errands to cut down on trips to the drive-thru.
- Start a new hobby. Often we eat because we are bored.
- When going to potlucks bring a healthy item.
- Only keep food in your kitchen—put away candy and nut dishes.
- Have a healthy snack before going to a party or late dinner to help take the edge off of your appetite and prevent overeating.
- Exercise every day.

Guidelines for Exercise

Exercise has many benefits for people with diabetes. It can help you control blood glucose, decrease risk of heart disease and maintain a healthy weight. It is important to develop an exercise plan that works best for you—a plan that you will be able to stick to long term. Check with your provider before beginning an exercise program. **Diabetes educators** will also help you as part of the Diabetes Education program.

Exercise can help lower blood glucose levels

When starting an exercise routine, monitor blood glucose before and after exercise to see how your body responds. Activity can lower blood glucose for up to 24 hours after your exercise session. If your blood glucose is low before your exercise session, eat before exercising or try exercising an hour or so after meals when blood glucose levels tend to be the highest. If **low blood glucose** during exercise is a recurring problem, your provider may need to adjust your medications. **Self-monitoring** will help you see how your blood glucose is affected by food, medication and exercise, and can help you fine tune your management.

Although exercise lowers blood glucose levels under ordinary circumstances, there is an exception. If blood glucose is consistently above 250, exercise may actually cause it to go higher, so exercise is not recommended until blood glucose comes down.

Increasing Activity Levels

Set a goal of at least 30 minutes of aerobic activity every day. Work toward your goal! Aerobic activities include walking, cycling, treadmill, aerobics classes, swimming, etc. Find a way to work in regular aerobic activity by examining your schedule. What time will work best and allow you to be the most consistent—during your lunch hour? After dinner? First thing in the morning? Think about your preferences. Do you like to exercise alone or with others? What types of exercise do you enjoy most?

Additionally, look for ways to incorporate activity into your day-to-day routine. For example, park farther away at stores and walk; sweep the driveway instead of hosing it; take the stairs instead of the elevator; walk rather than drive short distances. Small changes like these add up and can help you reach your goals. Page 29 helps you plan your own exercise program.

Benefits of Physical Activity

- Lowers blood glucose levels
- Decreases risk of heart disease
- Makes it easier to maintain a healthy weight
- Increases metabolism
- Increases HDL (good cholesterol) levels
- Strengthens bones, decreases risk of osteoporosis
- Decrease the risk of some cancers
- May lower blood pressure
- Improves circulation
- Strengthens heart
- Reduces stress
- Increases insulin sensitivity; may decrease amount of insulin or medication needed

PREVENTING COMPLICATIONS

Taking Care of Your Eyes

Diabetic eye disease (also called retinopathy) is a serious problem that can lead to loss of sight. There's a lot you can do to take charge and prevent such problems. Studies show that keeping your **blood glucose** closer to normal can prevent or delay the onset of diabetic eye disease. Keeping your **blood pressure** under control is also important. Finding and treating eye problems early can help save sight.

Signs of Diabetic Eye Disease

Since diabetic eye disease may be developing even when your sight is good, regular eye exams are important for finding problems early. Some people may notice signs of vision changes. If you're having trouble reading, if your vision is blurred, or if you're seeing rings around lights, dark spots, or flashing lights, you may have eye problems. Be sure to tell your primary care provider or eye doctor about any eye problems you may have.

Protecting Your Sight

1. **Keep your blood glucose under control.** High blood glucose can damage your eyes as time goes by. Work with your healthcare team to keep your glucose levels as close to normal as you can.
2. **Keep your blood pressure under control.** High blood pressure can damage your eyes. Have your provider check your blood pressure at each visit. If your blood pressure is higher than 140/90, you may want to buy a blood pressure cuff and check your blood pressure at home.
3. **Get regular eye exams.** Even if you're seeing fine, you need regular, comprehensive eye exams to protect your sight. You should have your eyes dilated and examined **once a year**.

Diabetic Nerve Damage

Diabetic nerve damage, or neuropathy, is a problem for many people with diabetes. Over time, high blood glucose levels damage the delicate coating of nerves. This damage can cause a number of problems such as pain in your feet. Studies show that controlling your blood glucose can help prevent or delay these problems. Controlling your blood glucose may also help reduce the pain from some types of nerve damage.

Some Signs of Diabetic Nerve Damage

Some signs of diabetic nerve damage are pain, burning, tingling or loss of feeling in the feet and hands. Nerve damage can cause you to sweat abnormally, make it hard for you to tell when your blood glucose is low and make you feel light-headed when you stand up.

Nerve damage can also lead to other problems. Some people develop problems swallowing and keeping food down. Nerve damage can also cause bowel problems, make it hard to urinate, cause dribbling with urination or lead to bladder and kidney infections. Many people with nerve damage have trouble having sex. For example, men can have trouble maintaining an erection, a problem called **erectile dysfunction**. If you have any of these problems, tell your provider. There are ways to help!

Protecting Your Nerves From Damage

1. **Keep your blood glucose under control.** High blood glucose can damage your nerves as time goes by. Work with your healthcare team to keep your glucose levels as close to normal as you can.
2. **Have an exercise plan.** Physical activity or exercise may help keep some nerves healthy, such as those in your feet. Ask your healthcare team about an activity that is healthy for you.
3. **Get tests for nerve damage.** Nerve damage can happen slowly. You may not even be aware you're losing feeling in your feet. Ask your provider to check your feet at each visit. Read more information on foot care on pages 26–27.

Diabetic Kidney Disease

Diabetes can cause **diabetic kidney disease**, or nephropathy, which can lead to kidney failure. There's a lot you can do to take charge and prevent kidney problems. Studies show that controlling your blood glucose can prevent or delay the onset of kidney disease. Keeping your blood pressure under control is also important.

The **kidneys** keep the right amount of water in the body and help filter out harmful wastes. These wastes then pass from the body in the urine. Diabetes can cause kidney disease by damaging the parts of the kidneys that filter out wastes. When the kidneys fail, a person has to have his or her blood filtered through a machine several times a week, a treatment called dialysis, or get a kidney transplant.

Testing Your Kidneys

Your provider can learn how well your kidneys are working by testing for albumin (a protein) in the urine. You should have your urine checked for albumin every year. Ask your provider to discuss the test results with you.

Protecting Your Kidneys

1. **Keep your blood glucose under control as high blood glucose can damage your kidneys as time goes by.** Work with your healthcare team to keep your glucose levels as close to normal as you can.
2. **Keep your blood pressure under control.** High blood pressure can damage your kidneys. Have your blood pressure checked at each visit.
3. **Choose healthy foods.** If your kidneys are not functioning properly, you may be asked to cut back on the protein in your diet. A diet high in protein may cause more damage to your kidneys over time. Your **dietitian** can help you to develop a low-protein meal plan. Eating less salt is also a good idea and can help control blood pressure.

Heart Disease & Diabetes

Heart and blood vessel problems are some of the most common causes of sickness and death among people with diabetes. These problems can lead to **high blood pressure**, **heart attacks** and **strokes**. Heart and blood vessel problems can also cause poor blood flow, or circulation, in the legs and feet.

You're more likely to have heart and blood vessel problems if you smoke cigarettes, have high blood pressure or have too much **cholesterol** or other fats in your blood. Talk with your healthcare team about what you can do to lower your risk for heart and blood vessel problems.

Signs of Heart and Blood Vessel Problems

If you feel dizzy, have sudden loss of sight, slur your speech or feel numb or weak in an arm or leg, you may be having serious heart and blood vessel problems. Your blood may not be getting to your brain as well as it should. Danger signs of circulation problems to the heart include chest pain or pressure, shortness of breath or irregular heartbeats. If you have any of these signs, call your provider's office, ask someone to take you to the Walk-In Clinic, or call 911 if needed.

Signs of circulation problems in your legs include pain or cramping in your buttocks, thighs or calves during physical activity. Even if this pain goes away with rest, report it to your provider.

Preventing and Controlling Heart and Blood Vessel Problems

1. **Don't use tobacco.** Smoking cigarettes causes hundreds of thousands of deaths each year. When you have diabetes and also use tobacco, your risk of heart and blood vessel problems increases drastically. One of the best choices you can make for your health is to never start smoking, or if you smoke, to quit. Ask your provider about things you can do to stop smoking.

2. **Check your blood pressure.** Have your blood pressure checked at every visit. If your provider prescribes blood pressure medication, be sure to take it. Many medicines are available to treat high blood pressure. If you have side effects from the medicine, ask your provider if it can be changed. A common goal for blood pressure is to keep it under 140/90.

3. **Eat right and exercise.** Choose a healthy diet low in saturated fat and salt. Work with your dietitian to plan healthy meals. Ask about an exercise program or physical activity that would work for you. Lose weight if needed. (See pages 20–21 of this manual for more information on weight loss and activity.)

4. **Check your cholesterol.** Ask your healthcare team to explain **HDL** and **LDL** levels.
   - Triglyceride goal is less than 150 mg/dl.
   - HDL should be higher than 40 mg/dl for men and 50 mg/dl for women.
   - Lifestyle treatment recommendations include increased activity, weight loss, smoking cessation, reducing intake of saturated fat, trans fats and cholesterol and increasing omega-3 fatty acids and viscous fiber.
   - Overall cardiovascular disease risk, including LDL level, will determine a recommendation for statin treatment.
   - Record your cholesterol levels on pages 30–32.

Taking Care of Your Feet

Nerve damage, circulation problems and infections can cause serious foot problems for people with diabetes. There is a lot you can do to prevent problems with your feet. Controlling your blood glucose and not using tobacco can help protect your feet. You can also take simple safeguards each day to care for and protect your feet. Measures like those outlined below have prevented many amputations.

It is also helpful to understand why foot problems happen. Nerve damage can cause you to lose feeling in your feet. Sometimes nerve damage can deform or misshape your feet, causing pressure points that can turn into blisters, sores or **ulcers**. Poor circulation can make these injuries heal slowly.

Signs of Foot Problems

Your feet may tingle, burn or hurt. You may not be able to feel touch, heat or cold very well. The shape of your feet may change over time. There may even be changes in the color and temperature of your feet. Some people lose hair on their toes, feet and lower legs. The skin on your feet may be dry and cracked. Toenails may turn thick and yellow. Fungal infections can grow between your toes. Blisters, sores, ulcer, infected **corns** and ingrown toenails need to be evaluated by your primary care provider or foot doctor right away.

Protecting Your Feet

1. **Have your sense of feeling and the pulse in your feet checked at least once a year.**
2. **Check your feet each day.** Look at your feet every day to see if you have scratches, cracks, cuts or blisters. Always check between your toes and on the bottoms of your feet. If you can't bend to see the bottoms of your feet use a mirror or have someone else check for you. Call your provider if you have a foot sore or redness around the nails.
3. **Wash your feet daily.** Dry them with care, especially between the toes. Don't soak your feet—it can dry out your skin and dry skin can lead to infections. If you have dry skin, rub a thin coat of lotion on the tops and bottoms of your feet. Avoid the area between the toes, where moisture can get trapped allowing bacteria to grow.
4. **Trim your toenails carefully.** Trim your toenails after you've washed and dried your feet. The nails will be softer and safer to cut. Trim the nails straight across and use an emery board to smooth off the edges. Don't cut into the corners. If you can't see well or if your nails are thick or yellowed, get them trimmed by a foot doctor or other provider.
5. **Treat corns and calluses gently.** Don't cut them or use corn plasters or liquid corn and callus removers. They can damage your skin. Treat them gently with a pumice stone.
6. **Protect your feet from heat.** Before bathing, test the water to be sure that it's not too hot. Wear shoes and socks when you walk on hot surfaces such as sand or pavement or around a swimming pool.
7. **Protect your feet from cold.** Wear warm socks and shoes or boots. In the winter wear lined, waterproof boots if you live in a cold area. If your feet are cold at night, wear socks to bed. Don't use hot water bottles, heating pads or electric blankets as they can burn your feet.
8. **Be physically active.** Physical activity can help increase the circulation in your feet.

Always Wear Shoes and Socks

1. **Wear shoes and socks at all times, even indoors.** Wear shoes that fit well and protect your feet. Don't wear shoes that have plastic uppers and don't wear sandals with thongs between the toes. New shoes should be comfortable when you buy them. Break them in slowly by wearing them only 1 to 2 hours a day.
2. **Choose socks that allow your feet to breathe and stay dry.**
3. **Look and feel inside your shoes each time you put them on.** Check for any loose objects, nail points, torn linings or rough areas. These could cause foot sores.

Pregnancy and Women's Health

Becoming Pregnant When You Have Diabetes

Women with diabetes can have healthy babies, but you must plan ahead. Pregnancy can make both high and low blood glucose levels occur more frequently. It can make diabetic eye disease and kidney disease worse. High glucose levels are dangerous for the baby.

If you want to become pregnant, discuss it with your provider first. **It is important to have a normal or near-normal blood glucose range before becoming pregnant.** You will mostly likely need to adjust your **meal plan**, medications and glucose monitoring when you are pregnant. Ask your healthcare team for help.

If you **don't** want to become pregnant, talk to your provider about birth control.

Gestational Diabetes

Some women have diabetes only when they are pregnant. This is called **gestational diabetes**. Gestational diabetes can be controlled with monitoring blood glucose, diet changes, physical activity and sometimes **insulin**. The Diabetes Education team can help you learn how to monitor blood glucose and give you more options for what to eat.

Women's Health

Some women get vaginal **yeast infections**. This is more likely to happen when their blood glucose is high. If you notice vaginal itching, contact your provider.

Some women with diabetes have trouble with sexual function. Discomfort caused by vaginal itching or dryness can be treated. Talk to your provider.

TRAVEL

During Travel

When you plan a trip, think about your daily schedule and try to stick to it as closely as possible. For example if you test your **blood glucose** at noon and then eat lunch, plan to do this on your trip as well. Trips can hold surprises, so plan for delays and changes. Even the types of food and supplies you can buy on your trip may not be the same as those you get at home.

Before you travel, work with your provider to plan your timing for medicine, food and activity. Talk about what to do if you find changes in your glucose readings.

Plan ahead for trips:

- Keep snacks with you that could be used to prevent or treat **low blood glucose**.
- Carry extra food and drink supplies with you, such as cracker packs and small cans of juices or bottled water.
- Keep all diabetic supplies with you in a small case. Do not store them in checked luggage.
- Take along all the diabetes medicine you'll need, plus an extra week's worth. Keep all medicine in its original pharmacy container with the printed label that clearly identifies it.
- Take written prescriptions for all your medications, diabetic supplies and eyeglasses to carry with you.

When you travel, be sure to:

- Test your glucose often and keep track of it.
- Wear identification that says you have diabetes.
- Let others know how they can help you.
- Check the latest Federal Aviation Administration travel guidelines at faa.gov or by calling 800-322-7873.
- Call your airline for information regarding security requirements for carrying glucose testing supplies and syringes.

If you're traveling in a different time zone, you may need to change your timing of food, medicine and activity. Ask your provider to help you with this. Talk about food and drink choices that would be healthy for you. If you'll be in another country, ask your provider to write a letter explaining that you have diabetes. It's also a good idea to get your provider to write a prescription for you to get **insulin** or supplies if needed.

No matter where you travel, you can take charge of your diabetes.

WORKSHEETS

Planning Your Exercise Program

If you are not physically active at this time and have not discussed exercise with your provider recently, call your provider's office and make sure it is okay to start a slow, progressive exercise program.

Start Slow

Your minimum exercise goal should be 20–30 minutes three times per week. You are not expected to start at this level—begin slow and work up. To achieve the most benefits, you will eventually need to exceed this goal as your fitness level improves.

Be realistic with your current fitness level. The most important point is that you advance as your fitness level improves.

1. What physical activities do you enjoy doing? *(Consider if you like to be in a group or alone, inside or outside, etc.)*

   _____

   _____

2. Which of these activities would be practical and safe for you to do on a regular basis?

   _____

   _____

3. Where will you do these activities?

   _____

   _____

4. When will you exercise? What time of day? Which days of the week?

   _____

   _____

5. How often will you exercise? How long will you exercise each time?

   _____

   _____

6. What is your exercise goal for the next month? For the next three months?

   _____

   _____

7. How will you reward yourself for your exercise program?

   _____

   _____

8. I am already physically active or I have checked with my provider's office to ensure that it is okay for me to start an exercise program. **Yes** _____ **No** _____

Good luck! You CAN do it!

Diabetes Care Goals

Work with your healthcare team to establish personalized goals.

Test	Your Results / Date	Your Goal	ADA Standard
HbA1c			Less than 7%
Blood Pressure			Less than 140/90
HDL			MEN: greater than 40 mg/dl WOMEN: greater than 50 mg/dl
Triglycerides			Less than 150 mg/dl

Test	Your Results / Date	Your Goal	ADA Standard
HbA1c			Less than 7%
Blood Pressure			Less than 140/90
HDL			MEN: greater than 40 mg/dl WOMEN: greater than 50 mg/dl
Triglycerides			Less than 150 mg/dl

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HbA1c			Less than 7%
Blood Pressure			Less than 140/90
HDL			MEN: greater than 40 mg/dl WOMEN: greater than 50 mg/dl
Triglycerides			Less than 150 mg/dl

Test	Your Results / Date	Your Goal	ADA Standard
HbA1c			Less than 7%
Blood Pressure			Less than 140/90
HDL			MEN: greater than 40 mg/dl WOMEN: greater than 50 mg/dl
Triglycerides			Less than 150 mg/dl

Test	Your Results / Date	Your Goal	ADA Standard
HbA1c			Less than 7%
Blood Pressure			Less than 140/90
HDL			MEN: greater than 40 mg/dl WOMEN: greater than 50 mg/dl
Triglycerides			Less than 150 mg/dl

Care Guidelines Checklist

At least once a year have your provider perform these tests and exams. Set goals and record the dates and results in the boxes below.

Tests and Other Services	Dates / Results			
Flu Shot				
Urine Test for Protein *(microalbumin)*				
Blood Creatinine (mg/dl)				
Total Cholesterol (mg/dl)				
HDL Cholesterol (mg/dl)				
LDL Cholesterol (mg/dl)				
Triglycerides (mg/dl)				
Dilated Eye Exam				
Foot Exam				
Dental Exam				

Note regarding pneumococcal vaccine: We recommend you receive a pneumococcal vaccine at least once in your lifetime. Repeat the vaccine if you're over 65 and your first immunization was received prior to age 65 and more than five years ago.

CUT HERE IF YOU WANT TO TAKE ONLY THIS PAGE TO VISITS WITH YOUR PROVIDER.

Tests and Other Services	Dates / Results			
Flu Shot				
Urine Test for Protein *(microalbumin)*				
Blood Creatinine (mg/dl)				
Total Cholesterol (mg/dl)				
HDL Cholesterol (mg/dl)				
LDL Cholesterol (mg/dl)				
Triglycerides (mg/dl)				
Dilated Eye Exam				
Foot Exam				
Dental Exam				

Self-Care Goal Setting

You are the primary person in charge of your diabetes. Choices you make each day can have a significant impact on your health. Setting helpful and realistic self-care goals is the key to managing your diabetes well. Your **diabetes educators** will work with you to help you set goals during the Diabetes Education program.

- Think of goal setting as creating new habits.
- Set very specific, small goals for yourself.
- Review your goals with your healthcare team.
- When you have reached a goal, set a new one!
  Good Example: I will switch from 2% to 1% milk starting this Saturday.
  Poor Example: I will lose 10 pounds by next month.

The first example is very specific and describes the self-management behavior that is needed. The second example is too broad and there is no information on **how** this weight will be lost.

The American Association of Diabetes Educators has developed a list called the **Seven Self-Care Behaviors**. These seven categories are areas of self-care common to persons with diabetes. Review the list below to see where you may be ready to make improvements. Choose one topic, identify the behavior you will change and then make a contract with yourself to follow through. When you have achieved success, choose a new goal.

Self-Care Topics:	**Behavior Goal Examples:** "I will choose to. . ."
Healthy Eating	Reduce the portion size of the starch at dinner.
Being Active	Add an extra day of walking each week after dinner.
Monitoring	Check blood sugar each morning before breakfast.
Taking Medication	Put the dinner pill out when setting the table.
Problem Solving	Have a family meeting to discuss ways to decrease evening snacking.
Healthy Coping	Have coffee with a co-worker who also has diabetes.
Reducing Risk	Check my feet each evening before going to bed.

Start taking charge of your diabetes by setting self-care goals today. Choose your first goal and then decide when you will evaluate your progress. Rate your success with five being the most successful. Decide from there if you need to modify your goal or if you are ready to move on to making your next goal. For example, if you chose to serve smaller portions at dinner but you did not feel successful, try modifying that to something more achievable. Ideas might include filling up more of your plate with vegetables, using a smaller plate at dinner or having a light afternoon snack so you are not so hungry at dinner.

Self-Care Goals

Today's Date: _____ Self-Care Topic: _____

Behavior Goal: **"I choose to...** _____

_____

_____."

Review Date: _____ How Did I Do? (0–5) _____

Today's Date: _____ Self-Care Topic: _____

Behavior Goal: **"I choose to...** _____

_____

_____."

Review Date: _____ How Did I Do? (0–5) _____

Today's Date: _____ Self-Care Topic: _____

Behavior Goal: **"I choose to...** _____

_____

_____."

Review Date: _____ How Did I Do? (0–5) _____

Today's Date: _____ Self-Care Topic: _____

Behavior Goal: **"I choose to...** _____

_____

_____."

Review Date: _____ How Did I Do? (0–5) _____

Keeping Track of What You Eat

Many people find it very beneficial to write down what they eat and how much. Use this diary to help see the relationship between what you eat and your blood glucose results. In the carbohydrate column, remember that you would count any grain, starchy vegetable, milk, yogurt, fruit or sweet. Refer to pages 11–12 for further information.

Pay special attention to the portion sizes of the food you eat, and be sure to write them down.

Food Record

Name:_____ Date: _____

Blood Glucose:	Carbohydrate	Protein	Fat	Free
Breakfast				
Blood Glucose:				
Snack				
Blood Glucose:				
Lunch				
Blood Glucose:				
Snack				
Blood Glucose:				
Dinner				
Blood Glucose:				
Snack				
Total Servings Per Food Group:				
Exercise:				

Food Record

Name:_____ Date: _____

Blood Glucose:	Carbohydrate	Protein	Fat	Free
Breakfast				
Blood Glucose:				
Snack				
Blood Glucose:				
Lunch				
Blood Glucose:				
Snack				
Blood Glucose:				
Dinner				
Blood Glucose:				
Snack				
Total Servings Per Food Group:				
Exercise:				

Food Record

Name: _____ Date: _____

Blood Glucose:	Carbohydrate	Protein	Fat	Free
Breakfast				
Blood Glucose:				
Snack				
Blood Glucose:				
Lunch				
Blood Glucose:				
Snack				
Blood Glucose:				
Dinner				
Blood Glucose:				
Snack				
Total Servings Per Food Group:				
Exercise:				

Food Record

Name:_____ Date: _____

Blood Glucose:	Carbohydrate	Protein	Fat	Free
Breakfast				
Blood Glucose:				
Snack				
Blood Glucose:				
Lunch				
Blood Glucose:				
Snack				
Blood Glucose:				
Dinner				
Blood Glucose:				
Snack				
Total Servings Per Food Group:				
Exercise:				

Glossary

Beta Cells – Cells that make insulin. Beta cells are found in areas of the pancreas called the Islets of Langerhans.

Bladder – A hollow organ that urine drains into from the kidneys. From the bladder, urine leaves the body.

Blood Glucose – The main sugar the body makes from the food we eat. Glucose is carried through the bloodstream to provide energy to all of the body's living cells. Our cells cannot use glucose without the help of insulin.

Blood Pressure – The force of blood against the artery walls. Two levels of blood pressure are measured: the highest, or systolic, occurs when the heart pumps blood into the blood vessels; the lowest, or diastolic, occurs when the heart rests.

Blood Sugar – See blood glucose.

Calluses – Thick, hardened areas of the skin, generally on the foot, caused by friction or pressure. Calluses can lead to other problems, including serious infection and even gangrene.

Carbohydrate – One of three main groups of foods in the diet that provide calories and energy (proteins and fats are the others). Carbohydrates are mainly sugars (simple carbohydrates) and starches (complex carbohydrates; found in bread, pasta and beans) that the body breaks down into glucose.

Cholesterol – A substance similar to fat that is found in the blood, muscles, liver, brain and other body tissues. The body produces and needs some cholesterol. However, too much cholesterol can make fats stick to the walls of the arteries and cause a disease that decreases or stops circulation.

Corns – A thickening of the skin of the feet or hands, usually caused by pressure against the skin.

Dehydration – A state when the body is abnormally depleted of water.

Diabetes – The short name for the disease called diabetes mellitus. Diabetes results when the body cannot use blood glucose as energy because of having too little insulin or being unable to use insulin. See also Type 1 diabetes, Type 2 diabetes and gestational diabetes.

Diabetes Educator – Also known as a certified diabetes educator. An individual, usually a nurse or dietitian, who has taken a comprehensive course of study about diabetes, has passed a rigorous examination of knowledge of diabetes and is certified by the American Association of Diabetes Educators as competent to provide diabetes education.

Diabetic Eye Disease – A disease of the small blood vessels of the retina of the eye in people with diabetes. In this disease, the vessels swell and leak liquid into the retina, blurring the vision and sometimes leading to blindness.

Diabetic Kidney Disease – Damage to the cells or blood vessels of the kidney, also known as nephropathy.

Diabetic Nerve Damage – Damage to the nerves of a person with diabetes. Nerve damage may affect the hands and feet, as well as major organs.

Diabetes Pills – Pills or capsules taken by mouth to help lower blood glucose levels. These pills may work for people who are still making insulin.

Diabetologist – A physician with special interest and expertise in treating diabetes.

Dietitian (Registered Dietitian) – A professional person with specialized training and knowledge about nutrition, diet and dietary treatment of certain medical conditions including diabetes. Your dietitian can help you manage your meal plan to control blood glucose, reduce cardiovascular risk and lose weight if necessary.

Endocrinologist – A physician with advanced training in disorders of the endocrine system (hormone disorders) including diabetes. An endocrinologist may participate in the management of complex diabetes-related problems, however, they may not be able to manage care for *all* people living with diabetes.

Erectile Dysfunction – A condition of being unable to keep an erect penis and ejaculate. Some men who have had diabetes a long time become impotent if their nerves have become damaged.

Gestational Diabetes – A type of diabetes that can occur in pregnant women who have not been known to have diabetes before. Although gestational diabetes usually subsides after pregnancy, many women who've had gestational diabetes develop Type 2 diabetes later in life.

HDL (or high-density lipoprotein) – A combined protein and fatlike substance. Low in cholesterol, it usually passes freely through the arteries. Sometimes called "good cholesterol."

Heart Attack – Damage to the heart muscle caused when the blood vessels supplying the muscle are blocked, such as when the blood vessels are clogged with fats.

Hemoglobin Alc – A test that sums up how much glucose has been sticking to part of the hemoglobin during the past three months. Hemoglobin is a substance in the red blood cells that supplies oxygen to the cells of the body.

High Blood Glucose – A condition, also known as hyperglycemia, that occurs in people with diabetes when their blood glucose levels are too high. Symptoms include having to urinate often, being very thirsty and losing weight.

High Blood Pressure – A condition where blood circulates through the arteries with too much force. High blood pressure tires the heart, harms the arteries and increases your risk of heart attack, stroke and kidney problems.

Hormone – A chemical that special cells in the body release to help other cells work. For example, insulin is a hormone made in the pancreas to help the body use glucose as energy.

Pre-diabetes: Impaired Fasting Glucose – A condition in which fasting blood glucose levels are 100–125 mg/dl which commonly progresses to diabetes.

Pre-diabetes: Impaired Glucose Tolerance – Blood glucose level that is 140–199 mg/dl two hours after ingesting 75g of glucose. This condition commonly progresses to diabetes.

Insulin – A hormone that helps the body use blood glucose for energy. The beta cells of the pancreas make insulin. When people with diabetes can't make enough insulin, they may have to inject it from another source.

Insulin Deficiency – The pancreas does not produce enough insulin to manage blood sugars normally.

Insulin-Dependent Diabetes – See Type 1 diabetes.

Insulin Resistance – A less than normal responsivity or sensitivity to insulin, usually present in people with Type 2 diabetes, especially those who are overweight.

Ketones – Chemical substances the body makes when it doesn't have enough insulin in the blood. When ketones build up in the body for a long time, serious illness or coma can result.

Kidneys – Twin organs found in the lower part of the back. The kidneys purify the blood of all waste and harmful material. They also control the level of some helpful chemical substances in the blood.

LDL (or low-density lipoprotein) – A combined protein and fatlike substance. Rich in cholesterol, it tends to stick to the walls in the arteries. Sometimes called "bad cholesterol."

Low Blood Glucose – A condition, also known as hypoglycemia, that occurs in people with diabetes when their blood glucose levels are too low. Symptoms include feeling anxious or confused, feeling numb in the arms and hands, and shaking or feeling dizzy.

Meal Plan – A guide to help people get the proper amount of calories, carbohydrates, proteins and fats in their diet.

Microvascular – Having to do with small blood vessels. Diabetes can cause impairment of your microvascular circulation.

Nephropathy – See diabetic kidney disease.

Non-Insulin-Dependent Diabetes – See Type 2 diabetes.

Ophthalmologist – A medical doctor specializing in the diagnosis and treatment of eye diseases. A retinal specialist is an even more specialized practitioner who may be consulted to treat advanced diabetic retinopathy.

Optometrist (Optometric Physician) – The primary healthcare professionals for the eye. Optometric physicians examine, diagnose, treat, manage diseases (including performing diabetic retina examinations and other ocular pathologies) and treat other disorders of the visual system.

Pancreas – An organ in the body that makes insulin so the body can use glucose for energy. The pancreas also makes enzymes that help the body digest food.

Podiatrist – A doctor specially trained to diagnose and treat common foot conditions. A podiatrist can help you keep your nails trimmed, watch for calluses or deformities which increase risk for foot infections and ulcers, and prescribe protective shoe inserts or footwear to avoid foot complications.

Primary Care Provider – A healthcare professional (physician or nurse practitioner) who oversees and coordinates your healthcare. Your primary care provider manages routine preventive care and minor acute illnesses, and is usually the first to evaluate signs and symptoms of more severe or chronic illnesses. Your primary care provider is responsible for making appropriate referrals for specialized care when needed.

Retinopathy – See diabetic eye disease.

Risk Factors – Traits that make it more likely that a person will get an illness. For example, a risk factor for getting Type 2 diabetes is having a family history of diabetes.

Stroke – Damage to a part of the brain that happens when the blood vessels supplying that part are blocked, such as when the blood vessels are clogged with fats.

Support Group – A group of people who share a similar problem or concern and help each other by sharing experiences, knowledge and information.

Type 1 Diabetes – A condition in which the pancreas makes so little insulin that the body can't use blood glucose as energy. Type 1 diabetes most often occurs in people under age 20 and must be controlled with daily insulin injections. Formerly known as insulin–dependent diabetes or juvenile-onset diabetes.

Type 2 Diabetes – A condition in which the body either makes too little insulin and/or can't use the insulin it makes to convert blood glucose to energy. Type 2 diabetes most often occurs in people over 40, but can occur at a younger age. It can sometimes be controlled through meal plans and physical activity plans without medication. However, many people with Type 2 diabetes have to take diabetes pills or insulin. Formerly known as non-insulin-dependent diabetes.

Ulcer – A break or deep sore in the skin that fails to heal properly.

Yeast Infection – A vaginal infection that is usually caused by a fungus. Women who have this infection may feel itching, burning when urinating and pain, and some women experience vaginal discharge. Yeast infections occur more frequently in women with diabetes.

NOTES:

- Advanced Imaging
- Allergy, Asthma & Immunology
- Anesthesiology
- Anticoagulation
- Behavioral Health
- Cancer/Oncology
- Cosmetic & Facial Plastic Surgery
- Dermatology
- Ear, Nose & Throat
- Endocrinology & Diabetes
- Family Medicine
- Flu Services
- Gastroenterology & Liver Disease
- Geriatric Care
- Hand Surgery & Therapy
- Hearing Aid
- Heart & Vascular
- Hospitalists
- Infectious Disease
- Internal Medicine
- Laboratory Services
- Mohs, Laser & Skin Surgery
- Nephrology
- Neurohospitalists
- Neurology
- Obstetrics & Gynecology
- Occupational Medicine
- Ophthalmology
- Optometry
- Orthopedics
- Outpatient Surgery
- Pediatrics
- Personalized Care Team
- Physical Therapy
- Podiatry
- Pulmonary & Sleep Medicine
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