

DIABETES BASICS

Your Toolkit



Updated September 2021

Diabetes plan _____ **Date:** _____

- ◆ Take your diabetes medications as prescribed:

Medication	How to take

- ◆ Eat healthy portions for your meals. Avoid juice and soda
- ◆ Know when to check your blood sugar:
 - Before breakfast
 - Before lunch
 - Before dinner
 - 2 hrs after breakfast
 - 2 hrs after lunch
 - 2 hrs after dinner
 - Bedtime
- ◆ Call your clinic if you have symptoms described on page 19
- ◆ Bring your discharge papers, medications, blood sugar log and meter to your appointments:

Date	Time	Clinic	Phone #
		Diabetes Clinic in Building 90, 2 nd floor OR Building 5, 1M clinic	628-206-8749

If you need urgent care, call your primary clinic first.
Many clinics have urgent appointment slots (see p. 22)

If your primary care clinic cannot see you urgently, go to the
ZSFG Adult Urgent Care Clinic
 In building 5, 1st floor, 1E clinic
 628-206-8052



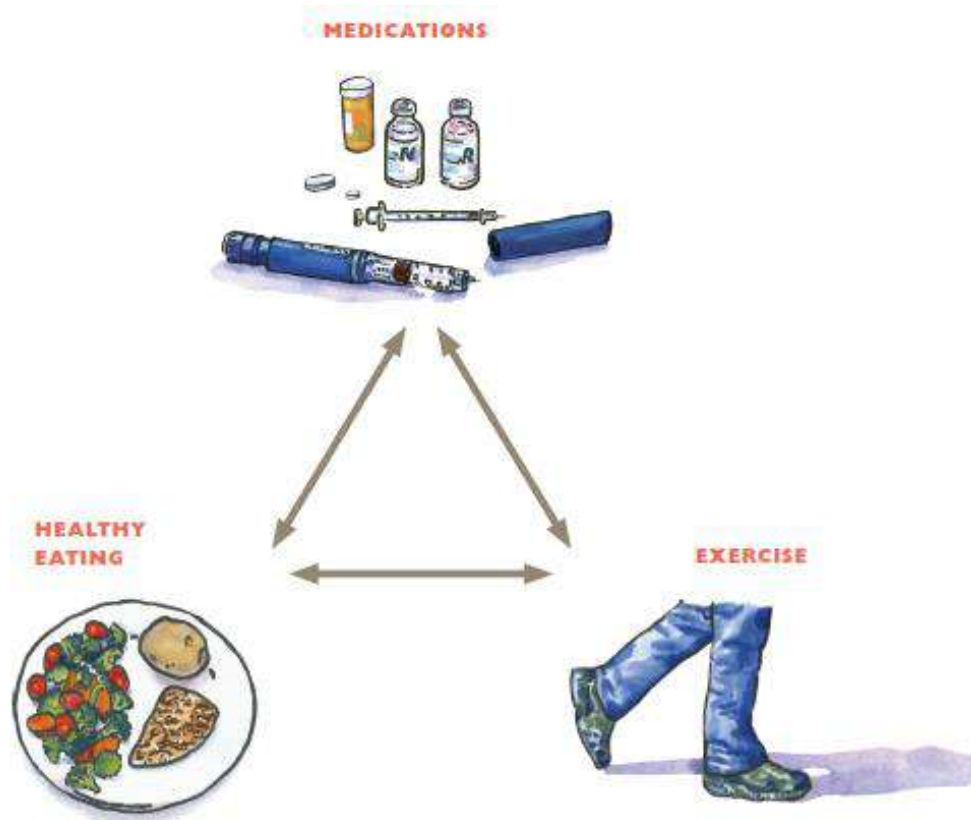
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About diabetes

Healthy diabetes balance



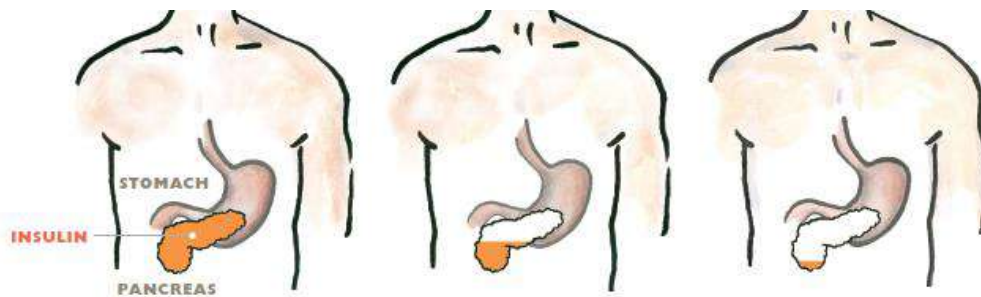
Eating healthy foods, exercising and taking the right medications are all important ways to control your diabetes. Keeping blood sugars in a safe range can prevent long-term complications in your eyes, kidneys, nerves and heart. We support you in making healthy changes to reach your goals.

Your health care team includes your doctor, nurse practitioner, nurse, diabetes educator, nutritionist, eye doctor, foot doctor, behavioral health specialist and pharmacist.



Normally, food is digested, breaks down into glucose (sugar) and goes into the bloodstream. Glucose comes from all carbohydrates, not just sugary foods. Your body needs glucose for energy and nutrition.

Diabetes is a condition in which the body cannot use glucose correctly. Insulin is a hormone that comes from your pancreas. Insulin helps bring glucose from the bloodstream into your body tissues. Without enough insulin, your blood sugar levels will be higher than normal.



Decreasing levels of insulin over time 

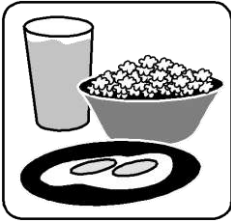
There are two types of diabetes: type 1 and type 2. Type 2 diabetes is much more common—your pancreas makes less insulin over time and your body is resistant to the effects of insulin. Type 2 can be treated with diet, exercise, pills, insulin and other injectable medications.

Type 1 diabetes is less common—the body's immune system damages the cells that make insulin. Type 1 must be treated with insulin.

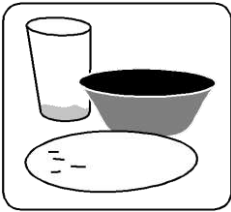
Over 34 million people in the U.S. have diabetes. Another 88 million—1 in 3 people—have pre-diabetes (2020 statistics). This is also a growing problem all over the world. You are not alone!



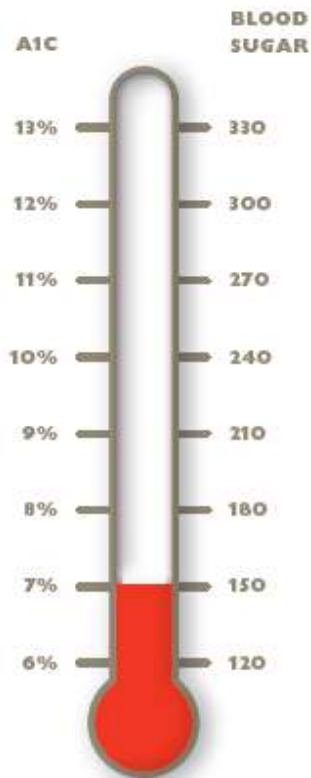
Blood sugar goals in diabetes



Before meals, the ideal blood sugar is 80-130 for most people



2 hours after meals, the ideal blood sugar is less than 180 for most people



The A1C lab test is your average blood sugar for the last 3 months

Keeping your A1C about 7% helps protect your eyes, kidneys, nerves and heart

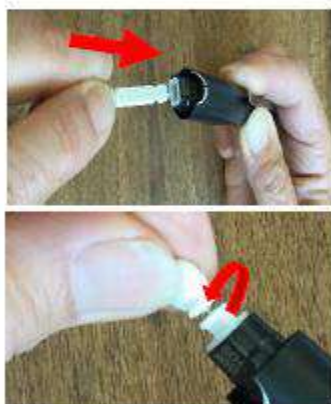
Using your Guide meter & lancet



Set-up:
Turn the cap to the number you want.
1 is for sensitive skin
5 is for thicker skin
2-3-4 are inbetween



1. Pull cap straight off



2. Insert lancet... then twist off round cover



3. Line up notches and replace cap. You will hear a click



4. Press the button all the way in (like a ballpoint pen)



5. Touch side of finger to end of lancing device



6. Press yellow button to prick your finger. You will hear a click



7. Gently squeeze finger to get a drop of blood





8. Remove one test strip



9. Insert gold side into meter.



10. Push strip all the way in. Meter will turn on automatically



11. Apply blood at the yellow edge of the test strip



12. See your result. Pull test strip out to turn meter off



13. Remove cap



14. Use body of lancing device to push lancet into sharps box. Replace cap

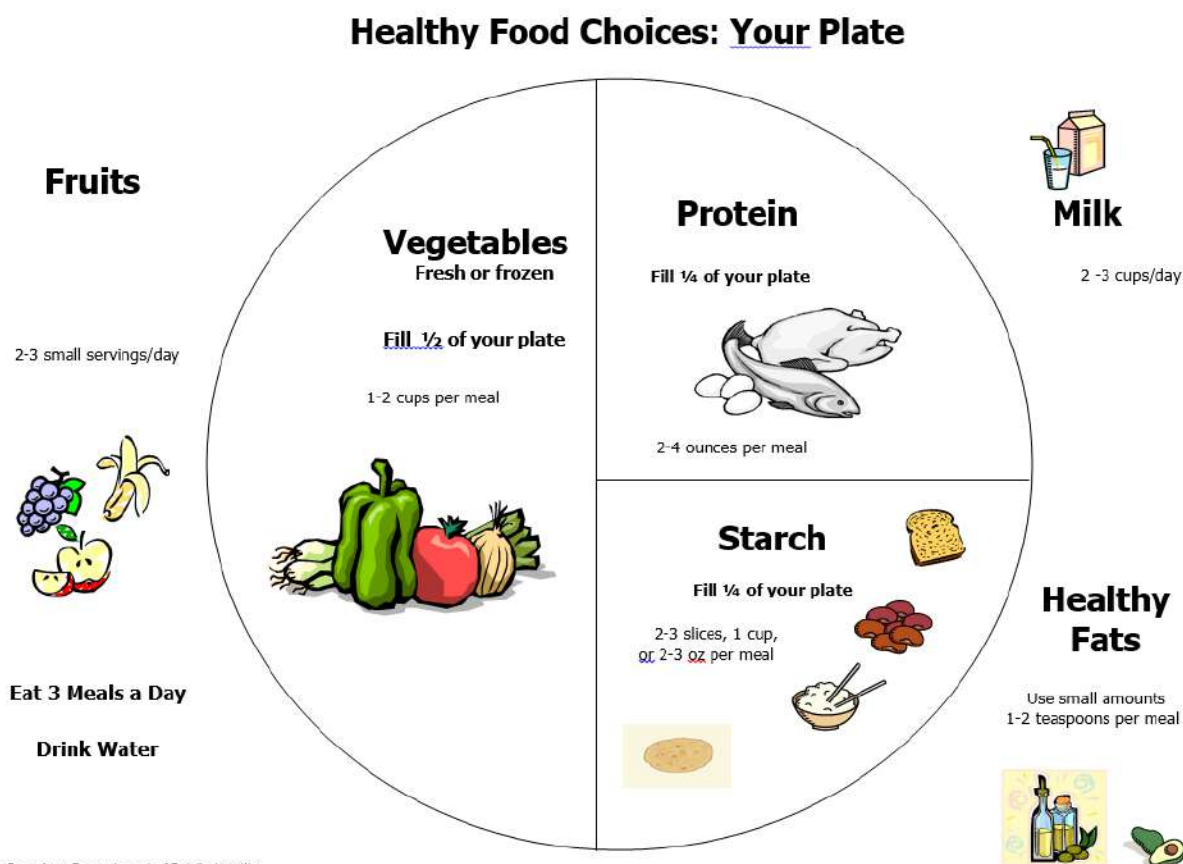
Done!



Healthy eating guidelines

Key points:

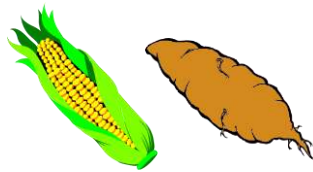
- People with diabetes don't have to buy special or expensive foods. Eat a variety of foods
- Eat 3 small meals per day. Avoid skipping meals
- Try to eat the same amount of carbohydrates from one day to the next
- Drink water. Avoid sugary drinks (juices, regular soda, energy drinks, Gatorade, Snapple, KoolAid, etc)
- Follow healthy portion guidelines:



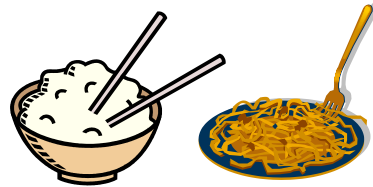
Understanding carbohydrates

- Carbohydrates are foods that turn into sugar in your body
- Choose whole grains when possible. Whole grains have more fiber which slows the rise of your blood sugar
- Avoid large servings of carbohydrates and drinks that raise your blood sugar too much
- Aim for a portion of carbohydrates that is $\frac{1}{4}$ of your plate at each meal

Carbohydrates:



Corn, potatoes, yams, pumpkin, taro



Rice, grains, cereals, oatmeal, pasta



Fruit, fruit juices



Bread, tortillas, rolls, crackers, bagels



Beans, peas, lentils



Cookies, cakes, pastries, sugary drinks, candy



Milk, yogurt

Understanding foods that are NOT carbohydrates

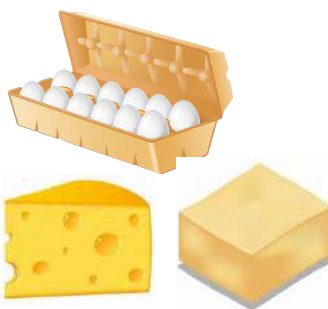
- These foods do not raise your blood sugars very much
- Aim for a portion of vegetables that is $\frac{1}{2}$ of your plate at main meals
- Aim for portion of protein that is $\frac{1}{4}$ of your plate at main meals
- Use a little oil and fat but not too much



Non-starchy vegetables

artichokes, asparagus
green beans, beets
broccoli, brussel
sprouts, cabbage
carrots, cauliflower
cucumber, eggplant

kale, leeks, lettuce
onions, okra
tomato, peppers
spinach, swiss chard,
turnips, zucchini, etc



Protein:

- beef, pork, lamb
- chicken, turkey
- fish, shrimp
- other seafood
- eggs
- cheese
- tofu



Fats and oils:

- nuts, peanut butter
- oil
- mayonnaise
- sour cream
- cream cheese
- butter
- half and half

Exercise

Why should I exercise?

- Exercise keeps your heart healthy
- Exercise improves your blood sugar
- Exercise may help you feel better
- Exercise may help you lose weight

How often should I exercise?

- At least 30 minutes, 5 days a week
- Do more if you can

What type of exercise is best?

- Do whatever you can enjoy without pain
- Ask your provider before you start a new exercise
- Cardio exercise is good for your heart. Weights, stretching and resistance exercise are good for your muscles. All types of exercise are helpful!



Exercise while sitting



Walking



Dancing



Aerobics



Resistance or weights



Common medications

Many people with diabetes take pills and insulin to control their blood sugar. Ask your provider about the timing of your medications.



Glipizide, glyburide or glimepiride
Take 30 minutes before meals



Metformin
Take after meals



Long-acting insulin
Usually bedtime and/or morning
No need to time with meals



Short-acting mealtime insulin
Take before meals

Medication side effects

Medications can lower your blood sugars to a safe range. Before starting your medications, learn about common mild side effects.

Medication	How it lowers your blood sugar	Some people may have these side effects
Glipizide, glyburide or glimepiride	Helps your body make more insulin	Low blood sugar, weight gain
Metformin	Decreases the sugar that your liver makes and helps your body be more sensitive to insulin	Diarrhea, bloating, stomach pain, gas, and metallic taste. Taking metformin with food will lessen these effects.
Insulin	Helps your body use sugar properly	Low blood sugar, skin irritation where you inject, weight gain
Non-insulin injectables (Victoza, Ozempic, Trulicity, Bydureon)	Helps your body make more insulin when you eat. Benefits your heart, kidneys and weight.	Nausea, diarrhea, heartburn, bloating. Rarely: vomiting, severe abdominal pain
SGLT2 inhibitors (Invokana, Jardiance)	Passes more glucose into the urine so the blood sugar is lower. Benefits your heart and kidneys.	Yeast infections, bladder infections, urinating more often Rarely: diabetic ketoacidosis (nausea, vomiting, abdominal pain) severe infection of the genitals



Low blood sugar

Some diabetes medications can cause low blood sugars.
Ask your provider about the medications you take.

You may feel...



Very hungry



Heart beating fast



Dizzy or shaky



Headache



Sweaty



Confused

Even if you feel fine, a blood sugar under 80 may be too low.



What causes low blood sugars?

- Missing meals or not eating on time
- Doing more exercise than usual
- Taking your glipizide or short-acting insulin without eating

How can you treat low blood sugars? Eat or drink 15 grams of sugar such as:



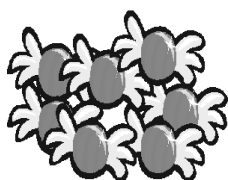
4 glucose tablets



3 teaspoons sugar



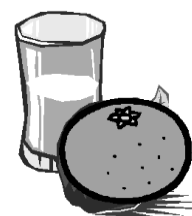
2 teaspoons
honey



6-7 hard candies



2 tablespoons
raisins



$\frac{1}{2}$ cup juice or
regular soda

Recheck your blood sugar after 15 minutes. If your blood sugar is still under 80, treat again. Call your health care provider if you still can't get your sugar over 80.

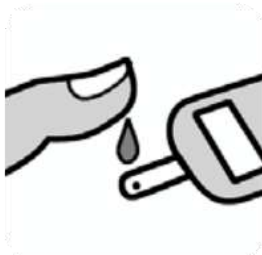
Don't ignore a low blood sugar. Be prepared!

When you're sick

When you are sick, your blood sugar may be higher than usual.



Continue taking your diabetes medicine



Measure your blood sugar every 2-4 hours if it is higher than normal.

****Type 1: check urine ketones. Call your provider if your sugar is over 240 and you have ketones**

Try to eat the usual amounts of food at the usual times.



To avoid dehydration, drink at least 8 ounces of calorie-free fluids (water, broth, diet soda) every hour

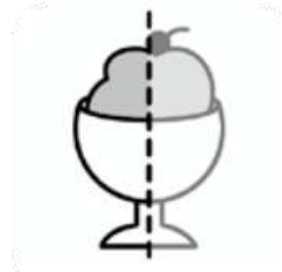


If you can't eat because of nausea and vomiting, drink liquids or eat foods with carbohydrates.

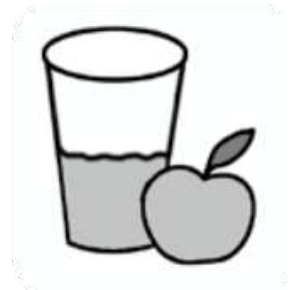
You can try these foods:



Gelatin
(1/2 cup)



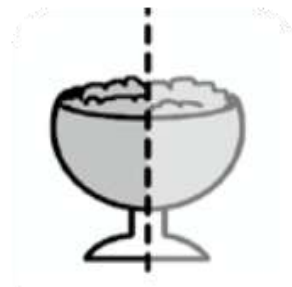
Ice cream
(1/2 cup)



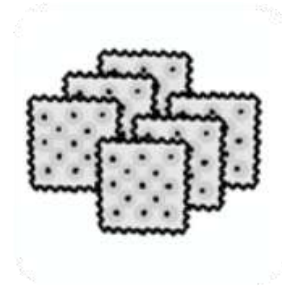
Fruit juice
(1/2 cup)



Gatorade
(1 cup)



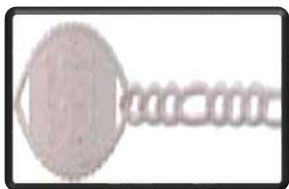
Pudding
(1/2 cup)



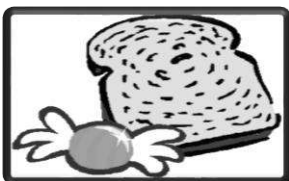
6 saltines



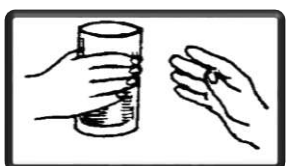
Be safe



Carry or wear diabetic identification



Always carry something with sugar or starch



Teach your family and friends to give you juice or sugar when your blood sugar is low



Drive only if your blood sugar level is above 100

Teach your family and friends what to do if you pass out:



Call 9-1-1, then administer glucagon



Do not give food or liquids to someone who is passed out

When to call your clinic



Low blood sugar

If your sugar is less than 80 or you have signs of low blood sugar (see pages 15-16)



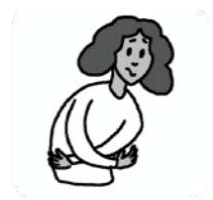
High blood sugar

If your sugar is more than 300, if you are urinating a lot, feel very thirsty, have blurry vision or feel unusually tired

** For type 1, call if your sugar is more than 240 and you have ketones in your urine with nausea, vomiting or abdominal pain



If you are **vomiting** for more than 8 hours and cannot hold down fluids



If you have **diarrhea** for more than 8 hours and cannot hold down fluids



If you have **fever, chills, new infections** or **sores**



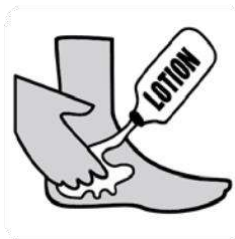
Take care of your feet



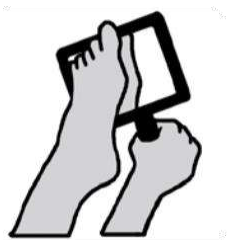
Take your shoes and socks off at each provider visit for foot checks



Wash your feet with warm water every day. Dry them well, especially between the toes

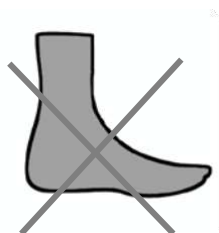


Use a moisturizing lotion but not between the toes



Check your feet every day for cuts, bruises, blisters, redness and swelling





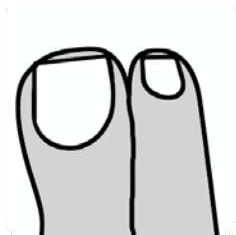
Don't walk barefoot



Wear shoes that fit well



Check inside your shoes before putting them on. There may be something that can cut you



Cut your nails straight across as shown

If you have a hard time taking care of your feet, ask your provider for a referral to a podiatrist



My primary care home

- Chinatown Public Health Center 415-364-7600
 1490 Mason St.
- Curry Senior Center 415-885-2274
 333 Turk St.
- Castro-Mission Health Center 415-934-7700
 3850 17th St. (temporarily at 995 Potrero Ave.)
- Family Health Center 628-206-5252
 995 Potrero Ave.
- Maxine Hall Health Center 415-292-1300
 1301 Pierce St.
- Mission Neighborhood Health Center 415-552-3870
 240 Shotwell St.
- Ocean Park Health Center 415-682-1900
 1351 24th Ave.
- Potrero Hill Health Center 415-648-3022
 1050 Wisconsin St.
- Richard Fine People's Clinic, ZSFG 628-206-8494
 1001 Potrero Ave., 1M
- Silver Avenue Health Center 415-657-1700
 1525 Silver Ave.
- South of Market Health Center 415-503-6000
 229 7th St.
- Southeast Health Center 415-671-7000
 2401 Keith St.
- St. Anthony's Free Medical Clinic 415-241-8320
 150 Golden Gate Ave., 2nd floor
- Tom Waddell Health Center 415-355-7400
 230 Golden Gate Ave.



Selected resources

- ZSFG Diabetes Clinic** 628-206-8749
Consultation with endocrinologists, nurse practitioners, nurse diabetes educators and nutritionists. Available by referral from primary care provider.
- ZSFG Community Wellness Program** 628-206-4995
Various wellness programs and exercise classes.
Open to the public www.sfghwellness.org
- ZSFG Diabetes Support Group** 628-206-8749
Monthly support group. Open to the public. Call for times.
- CalFresh (food stamps)** 877-847-3663
Call or apply for food stamps at 1235 Mission St.
www.cdss.ca.gov/calfresh
- SF Tobacco Free Project** 628-206-6074
Group meetings at ZSFG. Open to the public. Call for times.
- California Tobacco Control Program** 800-NO-BUTTS
Various programs including free telephone hotline to help quit smoking

Sfghdiabetes.org



My diabetes goals






	How often	Results/date	Goal
A1C 	Every 3 months		7% for most people
Blood pressure 	Every visit		Under 140/80 for most people
Cholesterol 	Once a year		Take a cholesterol lowering medication
Weight 	Every visit		My goal weight: _____
Eyes 	Once a year		Healthy eyes
Teeth 	Once a year		Healthy teeth
Feet 	Every visit		No cuts or sores
Urine protein 	Once a year		Under 30

- Do you have more questions? Ask your health care provider for a referral to see a nutritionist.



My goals:

Blood Sugar Log

Date	Before Breakfast 		Before lunch 		Before dinner 			Before bed 	Notes: 			
	Insulin:		Insulin:		Insulin:			Insulin:				
	Fast: Slow:	Time	Sugar	Insulin	Fast:	Time	Sugar	Insulin		Slow: Time	Sugar	Insulin



This “Diabetes Basics: Your Toolkit” has been updated from “Diabetes Basics”, Amalia Fyles, CDCES, CNS, and Kelly Quinn, CDCES, CNS (2013), updated 2019 and 2021

Icons and text on pages 5, 11, 14, 15, 16, 17, 18, 19, adapted with permission from “Live Your Life! Control Your Diabetes”, Lumetra

Images on pages 3, 4, 5 adapted from “Starting Insulin” flipchart teaching tool developed at ZSFG (2013), original illustrations by Mimi Sheiner

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