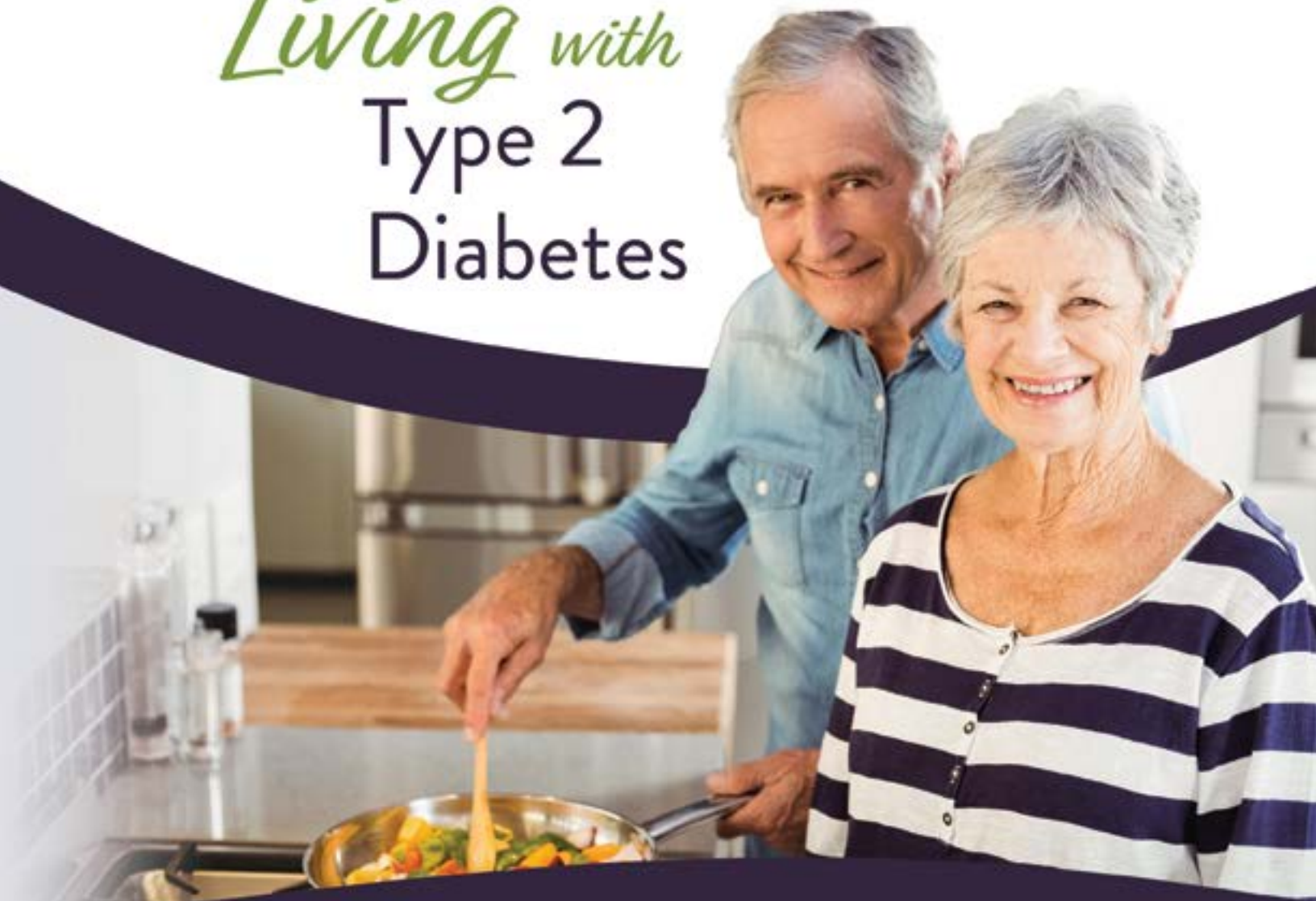


Nascentia Health

TOMORROW'S HEALTHCARE TODAY

Living with Type 2 Diabetes



Type 2 Diabetes S.M.A.R.T Goals

Specific **M**easurable **A**ttainable **R**elevant **T**imely

Page	Task	Goal Met Date	Notes
2	Explain what diabetes is		
3	List 5 symptoms of diabetes		
4	Understand your medicines: what they look like, how much to take, and when to take them		
6	Check your blood glucose (sugar)		
6	Keep your blood sugar within the limits your doctor has set for you.		
7	List the signs, symptoms, and treatment of hypoglycemia (low blood sugar) and identify how to prevent it. What foods to avoid.		
9	List the signs, symptoms, and treatment of hyperglycemia (high blood sugar) and identify how to prevent it.		
11	Follow your prescribed meal plan		
11	Know how meal planning, exercises, medications (if needed), and checking your blood sugar help you control your diabetes		
16	Design an exercise program with your doctor, and follow it.		
18	Know how to check your feet		
20	Know about care of your teeth, gums, and skin		
21	Know what to do when you are sick to keep your blood sugar within your healthy range		
23	Discuss 3 complications of diabetes		
	Identify safety measures for your home		
	Be free of long-term complications		
	Agree to see your doctor for follow-up visits		
	List 3 social or community support systems for diabetes		

1. What is Type 2 Diabetes?

You have diabetes when your body can't use or make enough insulin. Insulin is a hormone that helps get blood glucose (sugar) to your body's cells. All of your body's cells must have glucose to work well. When you don't have enough insulin or you don't use it well, sugar builds up in your blood instead of going into the cells. Your body can't lower blood sugar on its own, so you have to help your body. You may have to take medicine to help lower the sugar in your body if you can't do it with food choices alone.

Since your cells aren't getting the sugar they need, you may feel very thirsty, tired, and dizzy. You may lose weight or have to pee often. These are the early signs of high blood sugar (diabetes), but not everyone has them.

Diabetes runs in families, so your family members are at risk and should be screened for diabetes by their doctor or nurse. Not everyone has the early signs of high blood sugar.

Type 2 diabetes

You have Type 2 diabetes, which used to be called non-insulin-dependent diabetes mellitus (NIDDM). Your body makes some insulin but doesn't use it well.

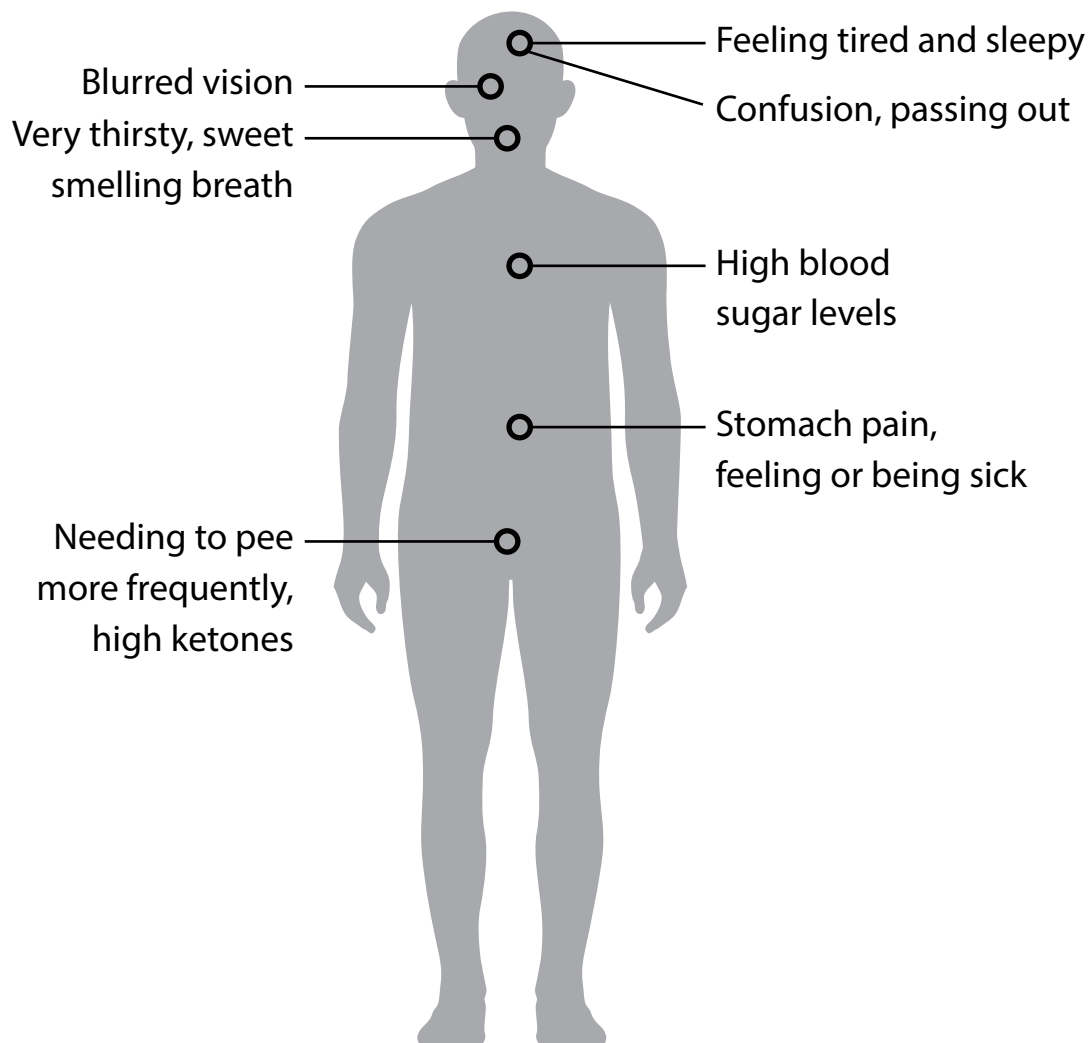
Most often, the treatment for Type 2 diabetes is getting to and staying at a body weight that's right for you. Body weight can be lowered with meal planning and exercise.

If meal planning and exercise are not enough to control blood sugar, you may need to take a prescription pill to help control blood sugar. At times, you may also need insulin.

2. Symptoms of Type 2 Diabetes

Often you feel no symptoms with Type 2 diabetes. Other times, symptoms occur over a period of time or are found on a routine medical checkup. When they occur, you may notice one or more of these:

- Fatigue (feeling very tired, having not energy)
- Extreme thirst (dry mouth)
- Blurred vision or dizziness
- Frequent urination
- Itching (vaginal or genital)
- Frequent infections (urinary tract, vaginal, boils, abscesses)
- Weight changes (gain or loss)



3. Pills (Oral Medication)

There are medicines taken as pills to lower blood sugar. They are not insulin. There are 5 different types of pills, and each act in a different way to control blood sugar levels. The pills act in these ways:

1. Stimulate the body to make more insulin
2. Slow the digestion of some carbohydrates
3. Keep the liver from releasing too much sugar
4. Make muscle cells more sensitive to insulin

These pills may be used alone or combined. If you take them, they must be balanced with your meal plan and exercise. **As with insulin, it is important to take the right dose at the same time(s) each day.**

Be sure to discuss the side effects of your medications with your doctor or nurse.

Alcohol and other pills (even over the counter) can affect the way these diabetes pills work. Be sure your doctor or nurse know about all other medicines you take.



3. Pills (Oral Medication) (Continued)

Medication	Food/drinks to avoid

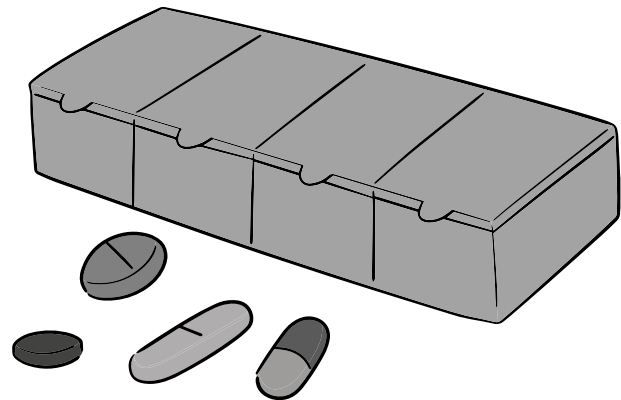
About your medicine

For these medications to work best, you must take them exactly as prescribed. Talk with your nurse or the pharmacist to learn about your medicine:

- The name(s) of your medicine(s)
- How to prepare them
- How and when to take (with food?)
- Side effects to watch for and what to do if they occur
- What to do if you miss a dose
- How one pill interacts with any others you are taking
- How certain foods affect your medicine(s). Some foods may have a negative effect on your medicines. Talk with your doctor or nurse about your medicines and which foods or drinks you should avoid.

Tips to remember:

- Know the actions, side effects, the reason you are taking the medication, when you should take them, and what to report to your nurse or doctor.
- Use a pre-filled pill box to help remember your medications.



Pill boxes can help you organize and remember your medications

4. Blood Sugar

Self-monitoring blood sugar

Self-monitoring your blood sugar (glucose) can help you control your diabetes. From self-monitoring you find:

- Your blood sugar level at the moment of testing
- How food, exercise, medicines, and illness or stress affect blood sugar levels
- Early warning signs of very low blood sugar and very high blood sugar

Your doctor or nurse will show you which blood test kit to use and how to use it.

Insurance may cover the cost of many blood test materials. Check to see what your insurance covers.

How to test your blood sugar

It is important to follow the instructions that come with your test kit to get a correct reading. For blood sugar testing, you will need a large, hanging drop of blood from your finger. The whole strip pad must be covered with blood to get a correct reading.

1. Read the directions that came with your test kit.



4. Blood Sugar (Continued)

2. Wash your hands with soap and warm water.
3. Make sure your fingers are warm. Hold your hand with the fingers angled down to increase blood flow to them.
4. Follow the directions on your lancet device and puncture the fingertip. Use a new lancet for each finger stick. Put the used lancet in your sharp's container.
5. Gently squeeze the finger to get a large drop of blood.
6. Apply the drop of blood onto the strip according to your test kit instructions. Do not rub or dab.
7. Go on with the test as directed.
8. Wait the correct amount of time, then read the test result right away and record it in your blood sugar records.

Tips to remember:

1. Make sure you know how to use your glucose testing machine. Ask your nurse or doctor if not sure.
2. Make sure you prevent contamination from germs while performing your fingerstick by keeping your hands and surfaces clean.

Low blood sugar

Since you take insulin for your diabetes, there may be times when you have low blood sugar. This is called hypoglycemia. This can be even more dangerous condition than high blood sugar. You may have one or more of these symptoms:

Early Stage	<ul style="list-style-type: none">• Shaky• Sweaty• Headache• Hungry• Dizzy• Fast heartbeat• Irritable/moody• Numbness around mouth/lips• Tingling
Later Stage	<ul style="list-style-type: none">• Slurred speech• Staggering• Confusion• Convulsions• Unconsciousness

Some people don't notice these symptoms right away. For this reason, those close to you (family, friends, teachers, coaches, co-workers, etc.) should know the symptoms of

4. Blood Sugar (Continued)



low blood sugar and how to treat them. The change from the early to later stage can often be so fast that someone else must give proper treatment. For this reason, **always wear ID (like Medic Alert) that shows you have type 2 diabetes.**

If you think your blood sugar is low, test it or have someone test it for you. A blood sugar of 70 or less is considered low for men and non-pregnant women with diabetes who are taking insulin. If you think your blood sugar is low and you cannot test it, always treat the symptoms.

Keep a log of how often you have low blood sugar and what caused it (if known).

Causes of low blood sugar:

- Too much insulin.
- Too little food (skipped or delayed meals).
- Extra exercise without extra food.

Preventing low blood sugar:

- Take the correct amount of insulin.
- Never skip or delay meals.
- Space meals 4–5 hours apart.
- Eat your scheduled snacks.
- Test blood sugar regularly. Look for patterns of low blood sugar and discuss with your doctor.
- Learn to relate low blood sugar to your exercise, peak action of insulin, and meals.
- Always carry a good sugar source (like 5-7 pieces of hard candy) and a nutritious snack with you.

Treatment for low blood sugar (treat at once!)

- Step 1: Treat your blood sugar level (if possible). If it is 70 or less, eat or drink one of these:
 - ½ cup fruit juice or ½ can regular soda (not diet)
 - 1 tablespoon of sugar or 4 sugar cubes
 - 6-7 hard candies (like Life Savers)
 - 2 tsp molasses, corn syrup, or honey
 - Glucose tablets (take 3–4 tablets) available over the counter.
 - Do NOT treat with any foods containing fat/protein because it will slow the rise of blood sugar and cause a spike later.



4. Blood Sugar (Continued)

- Step 2: Wait 15 minutes and retest. If it is still less than 70, or you still have symptoms, repeat Step 1 and 2 until you reach 70 or more.
- Step 3: Once your blood sugar is above 70, you need to eat something if your next meal is not scheduled (such as cheese/cracker/milk).

Glucagon may be used for severe hypoglycemia when a person passes out or cannot swallow. It is sold by prescription in a kit with a filled syringe and a bottle of powder that must be mixed. Follow the directions for mixing the glucagon, then inject it as you would insulin. A family member or friend needs to know how to do this and may also need to call for emergency assistance.

Glucagon Emergency Kit

1. Remove caps from powder bottle and syringe.
2. Insert needle into bottle and inject liquid. (Remove syringe from bottle)
3. Shake bottle until liquid and powder mix.
4. Draw up mixture and remove syringe.
5. Inject contents of syringe into any area used for insulin injections.

Be prepared—Ask your doctor for a glucagon kit; keep it on hand.

Tips to remember:

1. Know the signs and symptoms of low blood sugar
2. Remember to eat some form of sugar or carbohydrate if your blood sugar is low
3. If your blood sugar level is between 60–80mg/dl, take 4 ounces of fruit juice or one tablespoon of sugar and recheck your blood sugar in 15–20 minutes
4. Know how to use your glucagon kit for treatment of extremely high blood sugar

High blood sugar

Even when you inject insulin, you may have high blood sugar at some time. This is called hyperglycemia. High blood sugar can lead to coma (ketoacidosis). For this reason, someone close to you should know these symptoms and how to treat them. Over time, high blood sugar can damage your organs.

4. Blood Sugar (Continued)

When blood sugar is high you may have one or more of these:

Early Stage	<ul style="list-style-type: none">• Thirst (dry mouth)• Frequent urination• Blurred vision• Feeling tired• Itching (vaginal/genital)
Later Stage	<ul style="list-style-type: none">• Nausea, vomiting• Stomach cramps• Sweet, fruity breath• Flushed skin• Deep, rapid breathing• Unconsciousness• Death (if not treated)

Causes of high blood sugar

- Skipped insulin injections or not taking right amount
- Illness or infection
- Severe stress or trauma (surgery, accident, etc.)
- Overeating
- Eating concentrated sweets
- Insulin that has expired or has been damaged by heat or cold

How to prevent high blood sugar

- Inject the right amount and the right kind(s) of insulin at the right times each day
- Test your blood sugar regularly
- See a doctor when ill or if you have an infection
- Follow your meal plan
- Do not exercise if your blood sugar is very high (240 plus). Exercise at this time can make blood sugar go even higher.

Tips to remember:

1. Know the signs and symptoms of high blood sugar
2. Exercise more or limit your carbohydrates at your next meal if you have high blood sugar
 - If you have been doing all you can to keep your blood sugar in control, but still have high blood sugar readings, talk to your nurse or physician as you may need some adjustment in your medication
3. Drinking an extra 8 ounces of sugar-free fluid each hour can help with high blood sugars above 250. Talk to your doctor to see if this might be right for you.

5. Foods and Fluid

The most important part of treatment is to **balance what you eat with how much and when you eat.** When you eat the right foods in the right amounts, blood sugar is easier to control.

Keep these in mind when choosing foods:

- Eat the right amounts (serving sizes) of the right foods at each meal. The nurse or dietitian can help you set up your meal plan.
- Eat foods low in fat.
- Eat at about the same times each day; don't skip or put off meals or snacks.
- Eat a bedtime snack
 - if it's part of your meal plan, or
 - if your blood sugar is less than 100
- Exercise some each day.
- Eat before exercising if blood sugar is less than 100.

Food choices

To help with meal planning, all foods have been put into groups depending on how much carbohydrate, protein, and fat they have. These 3 groups are:

Carbohydrate Group	<ul style="list-style-type: none">• Starches/breads• Fruit• Milk• Vegetables• Other carbohydrates
Protein Group	<ul style="list-style-type: none">• Meat and meat substitute<ul style="list-style-type: none">• Very lean• Lean• Medium fat• High fat
Fat Group	<ul style="list-style-type: none">• Monounsaturated• Polyunsaturated• Saturated

If a meal calls for 1 fruit, you can eat any fruit on the fruit list in the proper serving size. For a meat, you can choose any meat from the meat list and so on. Because you can swap one food for another in the same group, your food list is called an exchange list. Learn to read labels in the grocery store to tell the carbohydrate, protein, fat, and sugar content of the items you buy.

5. Foods and Fluid (Continued)

Most likely you will be told to eat low-fat foods. Having diabetes puts you at risk for heart disease.

Check with your doctor or nurse as to what meal plan (calories) is prescribed for you.

Free foods

These are foods and seasoning that may be eaten and not counted as exchanges. These

“free foods” have less than 20 calories or less than 5 grams of carbohydrate per serving. You can eat as much as you want of these foods when no serving size is given. If a serving size is listed, you can eat up to 3 servings a day of free foods.

Spread these out over a number of meals and snacks each day. Eating all 3 servings at one time could affect your blood sugar.

Free Food Exchange List

Drinks

- Fat-free bouillon or broth (*high in sodium*)
- Coffee or tea
- Diet soda

Sweet Substitutes

- Jell-O (sugar-free)
- Jam or jelly (sugar-free)—1 tsp
- Whipped topping (sugar free)—2 Tbsp

Condiments

- Ketchup (*high in sodium*)—1 Tbsp
- Hot Sauce (*high in sodium*)
- Mustard
- Salad Dressing (low-calorie) (*high in sodium*)—2 Tbsp
- Salsa (*high in sodium*)
- Taco Sauce (*high in sodium*)—2 Tbsp
- Vinegar

Fruits

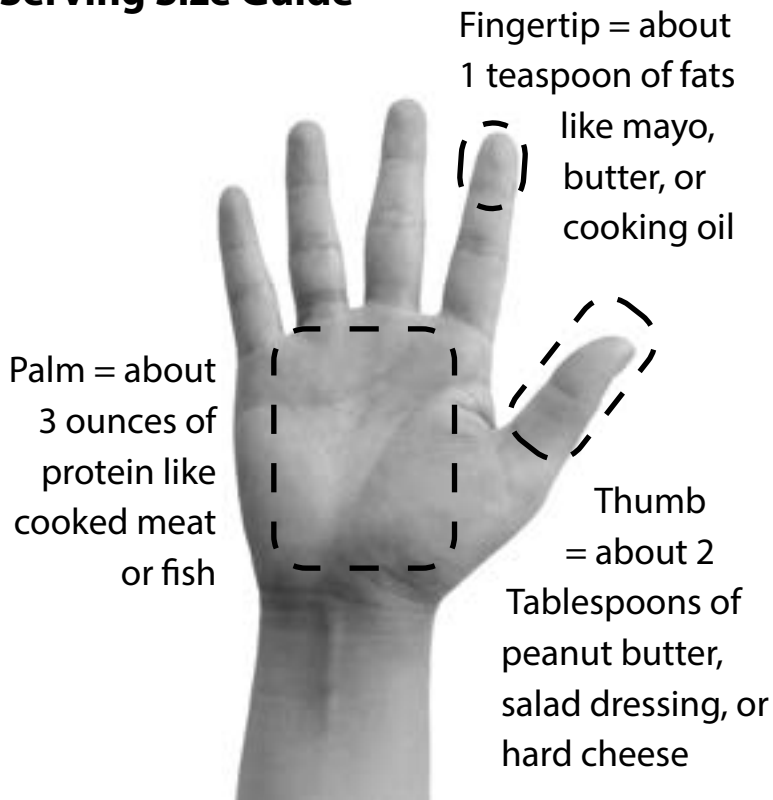
- Cranberries (no sugar added)
- Rhubarb (no sugar added)

Vegetables

- Celery
- Cilantro
- Cucumber
- Dill pickles (unsweetened) (*high in sodium*)
- Horseradish
- Onions
- Peppers—hot or chile, not canned
- Radishes
- Salad greens

5. Foods and Fluid (Continued)

Serving Size Guide



Cupped hand - about 1/2 cup of snacks like dried fruit and nuts



Closed fist = about 1 cup of fruit, cooked vegetables, beans, or starch like rice



Carbohydrate Counting

Carbohydrates are your body's main source of energy. Your body turns carbs into glucose (sugar), which it uses as fuel. Without carbs, your blood sugar will get too low and you won't have any energy. But, having too many carbs at once can make your blood sugar too high.

Most carbs come from:

- Breads
- Starchy foods
- Grains

- Fruits
- Milk
- Sugar

No matter what foods they come from, all carbs are turned into sugar. This means that all carbs (not just sugars) raise your blood sugar level.

You want to keep your blood sugar from getting too high or too low. Carb counting helps by spreading your carbohydrates out over the course of the day.

5. Foods and Fluid (Continued)

Eating the right amount of carbs will help you control your diabetes. Start a healthy meal plan by counting carbs.

How to count carbs

To count carbs, you need to know how many carbs to have at each meal and snack. Ask your nurse or dietitian to fill in this chart so you know how many you should eat each day.

Meal	Number of Carbs
Breakfast	
Snack	
Lunch	
Snack	
Dinner	
Snack	
Total	

To count carbs, you need to know 2 things:

1. The serving sizes of the foods you get your carbs from
2. How many carbs are in 1 serving of those foods

With most foods, you can use food labels to count carbs. To find out how large 1 serving is, look at the “Serving Size” lines at the top of the label.

To see how many carbs are in a serving, look for the line that says “Total Carbohydrate.” This line tells you all the carbs in 1 serving, including sugars.

Some foods (such as fruits and vegetables) don’t have labels. Your nurse or dietitian can tell you the serving sizes for these foods and tell you about a guidebook that will tell you how many carbs they have in each serving.

→

Nutrition Facts	
Serving Size 3/4 cup	
Amount Per Serving	
Calories 110	Calories from Fat 15
% Daily Value*	
Total Fat 1.5g	2%
Saturated Fat 0g	
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 22g	7%
Dietary Fiber 2g 8%	
Sugars 9g	
Protein 2g	
Vitamin A 10%	Vitamin C 10%
Calcium 10%	Iron 25%

*Percentage Daily Values based on 2,000 calorie diet.

5. Foods and Fluid (Continued)

Tips to remember:

1. Avoid the use of sugar, sweets, and sodas with sugar.
2. Increase high-fiber foods, such as dried beans, whole grains, and raw vegetables to consume 25–35 gm/day.
3. Avoid foods high in fat or oil (for example, fried foods, bacon, sausage, bologna, mayonnaise, and regular cheeses).
4. Limit your milk to 2 cups of skim or fat free per day.
5. Limit fruits to 1 small piece for lunch and dinner. No fruits for breakfast, avoid fruit juices.
6. Limit your alcoholic drinks as they can interact with your medications.

6. Exercise

Exercise is a major part of treatment for diabetes. What exercise does for you depends on what kind you do, how often you do it and for how long. Here is what exercise can do for people with diabetes:

- Help the body use insulin better
- Lower blood sugar
- Burn calories (weight control)
- Improve sense of well-being
- May decrease the amount of insulin needed

You should not exercise when your blood sugar is very high (240 plus). Contact your doctor if your blood sugar stays high. People with diabetes may be told to exercise in a group with medical supervision. Your doctor or exercise specialist can tell you what type of exercise to do and how hard to work out.

Counting calories is one way of deciding how much exercise to do. Here is a sample of some exercises and the of calories they burn:

- Walking burns 250–450 calories per hour
- Swimming, jogging, cycling burns 400–500 calories per hour
- Climbing stairs, skipping rope burns more than 400 calories her hour

Here are some other points to keep in mind about exercise:

- Warm up before exercise, and cool down afterwards.
 - Walk slowly for 5-10 minutes to warm up. Then stretch your muscles before going on to harder exercise. This helps loosen the muscles to prevent injuries.
 - Slow walking and stretching after hard exercise help the heart adjust to a slower beat and keep muscles from cramping.
- Exercise each day in some way. Use the stairs. Walk to visit nearby friend or take a short walk around the neighborhood.
- Start slowly and set a pace that is right for you. For one person, exercise with an easy home-walk program might look like this:

Week 1-2	Walk ¼ mile Once a day	5 minutes
Week 3	Walk ¼ mile Twice a day	5 minutes each time

- Increase distance with your doctor's OK.
- In bad weather, you can keep up your walking exercise at an enclosed mall. Walking is a cheap and safe way to exercise.
- Your doctor will tell you what pace to follow for any type of exercise. (Those with foot or leg problems may need to find other ways to exercise safely.)

6. Exercise (Continued)

- Wear shoes that support your feet and wear comfortable clothes.
- When you exercise, have someone nearby who knows that you are on insulin and knows the symptoms of low blood sugar and how to treat them.
- Do not inject insulin into areas which will be used in exercise. When exercising, inject insulin in the abdomen rather than arms or legs. Exercise can speed up the use of insulin from an arm or leg site.
- Take a cell phone so you can call for help if you need it.
- Always wear identification like an ID bracelet or necklace.
- Carry a sugar source with you when you exercise.
- If you often have low blood sugar reactions with exercise, tell your doctor or nurse. It may be wise to exercise with a friend.
- When blood sugar is close to your normal range, eat before exercising. If you don't, blood sugar may drop too low during exercise.
- You may want to talk with your doctor about how to adjust your insulin for exercising.
- If blood sugar is very high (240+), do not exercise. Wait until blood sugar comes down because exercise at this time can raise blood sugar even higher.

Exercise precautions

During exercise, your body uses insulin and blood sugar faster. So, you must know your blood sugar level and how to adjust foods and insulin to suit your workout. Here are some guides:

- Always check your blood sugar before and after exercise. If it is not at least 100 before exercise, have a snack with carbohydrates.
- To avoid low blood sugar reactions, do not exercise when insulin is at its peak.



7. Foot Care

People with diabetes need to take very good care of their feet and legs.

Having diabetes affects your whole body. High blood sugar can cause poor circulation (vascular disease) and nerve damage (diabetic neuropathy).

Poor circulation means your legs and feet don't have good blood flow and you can't fight off infection in your feet and legs well. Simple cuts or sores can become very serious. They can even lead to gangrene or amputation.

If you have nerve damage, you may have burning, aching, or a feeling of pins and needles in your feet and legs. You can also have numbness or loss of feeling. Because of this loss of feeling, you may not notice a small cut or sore when it first appears. Unless you check your feet and legs daily, the small problem can become serious.

How to check your feet and legs

Keep your feet **CLEAN & DRY**

1. Wash feet gently each day. This can be part of your daily bath or shower (do not soak your feet.). Use a white washcloth to help you see any drainage.
2. Use warm (not hot) water and a mild soap (avoid deodorant soaps). Test the water with your elbow before bathing. Your feet may be too numb to feel the heat.
3. Pat feet dry, and gently dry between each toe. Look between all toes and at the tops, bottoms, sides, and heels of your feet. A hand mirror or magnifying mirror can help you to see.
4. Have a "socks off" exam at each doctor visit. Have your doctor or nurse check the feeling and pulse in your feet at least once every 3 months.
5. See a podiatrist (a foot doctor) or your doctor when you have corns, callouses, blisters, cuts, scrapes, bruises, or other foot problems. Don't treat foot problems yourself.
6. Have your doctor, nurse, or a podiatrist show you how to trim or file your toenails. Then trim or file them only after bathing when the nails are soft. (File with an emery board only.) If your toenails have a fungus or are ingrown, always have a podiatrist or your doctor trim them for you.
7. If your feet sweat, add a tiny bit of powder to your socks or stockings before putting them on. Always adjust for wrinkles, avoid seams, and don't wear socks that have holes or that have been mended.
8. If your feet are dry and scaly, rub lotion on them after your bath and before bed. This helps keep the skin soft. Never put lotion between your toes.

7. Foot Care (Continued)

Anything wrong with a toe or foot can become a major problem for someone with diabetes. People with diabetes are 15 times more likely to have a foot or lower leg amputation than someone without diabetes. Early treatment can reduce the risk of serious infection or amputation.

Report foot injuries or infections EARLY. Call your doctor or nurse if you have any of these:

- Red or dark places, pus, swelling, slow healing sores.
- Blisters, bruises, cuts, corns, callouses.
- Burns, punctures, rubbed places (abrasions).
- Fungus under the toenails or ingrown toenails.

Improve blood flow to feet and legs.

1. If you smoke, quit.
2. Control blood sugar and blood pressure.
3. Exercise regularly as prescribed by your doctor and try to keep a normal body weight.
4. Eat less saturated fat. This can help prevent the buildup of fatty deposits in the arteries (atherosclerosis) and improve blood flow.
5. Wear socks and supportive, comfortable shoes. Shoes should feel good the day you buy them, not weeks later after they have been worn. Shop for them in the

afternoon when your feet are biggest.

Check to be sure the linings and stitching in the shoes are smooth.

6. Sit with legs uncrossed.
7. Wear socks to bed if your feet are cold. Never use heating pads, hot water bottles, or “electric” socks.
8. Don’t wear garters or socks or stockings with tight tops; don’t twist hose around legs to keep them up. Avoid tight clothes.
9. Avoid sandals, open heels, or open toes. They leave the foot open to injury and dryness.
10. Never go barefoot.

Tips to remember:

1. Inspect your feet daily
2. Report any problems with your feet to your physician
3. Wash your feet daily with warm soap and water and pat dry, especially between your toes
4. Wear shoes and socks that fit properly
5. Avoid going barefoot
6. Avoid exposing your feet to extreme temperatures

8. Teeth, Gums, and Skin

Diabetes may make you more likely to have gum disease. As you age, gum disease, not tooth decay, is most likely to cause loss of teeth. Infections of your teeth and gums can also make your blood sugar level go up. Be sure to do these:

- Have regular checkups with your dentist every six months.
- Always tell your dentist you have diabetes.
- Clean and floss your teeth daily.

Your dentist or nurse can tell you how to care for your teeth and gums.

Taking care of your skin

Since people with diabetes may have poor blood flow, care of the skin is important.

- Wear a wide brimmed hat outside and use sunscreen to prevent sunburn.
- Use a moisturizer to keep your skin from getting too dry.
- Tell your doctor or nurse if you have redness, swelling, or pain for more than one day.
- Keep your skin clean.



9. Sick Days

You know it is important for you to keep your blood sugar levels within your target range. However, when you are sick, your blood glucose (sugar) levels may go up. Being sick may also make it hard to:

- Stick with your meal plan
- Exercise
- Take your medicine as you should

Your goal while you are sick is to continue your diabetes management plan as best you can. You want to avoid further complications from your diabetes. Ask your doctor or nurse about a sick day plan.

Call your doctor or nurse if you have:

- Been sick or had a fever (more than 101.5°F/38.3°C) for a few days and are not getting better
- Diarrhea or vomiting that lasts longer than 6 hours
- Blood sugar levels higher than 300mg/dl or less than 70mg/dl
- Symptoms of ketoacidosis—chest pain, trouble breathing, fruity smelling breath, or dry mouth
- Symptoms you can't explain

Sick Day Plan

Use this sick day plan to help keep your blood sugar levels as close to normal as you can.

- Rest
- Drink a lot of fluids (8oz. every hour), unless you are told not to
 - If your blood sugar is over 240mg/dl, use sugar-free drinks, like broth, tea, or water
 - If your blood sugar is less than 240mg/dl, drink fluids that have 10–15 grams of carbohydrates in them
- Try your best to stick with your normal meal plan (but, if you can't, try to eat 45–50 grams of carbohydrates every 3–4 hours)
- If you can't eat at all, try a carbohydrate liquid or near liquid, like:
 - ½ cup non-diet soda
 - ¼ cup sherbet
 - ½ cup fruit juice
 - 1 popsicle
 - ½ cup sugar-free pudding
 - ½ cup gelatin
- Test your blood sugar every 3–4 hours
- Take your medicine, even if you can't eat (ask your doctor or nurse if you need to take less if you are not eating.)

9. Sick Days (Continued)

Sick Day Foods and Drinks

Here is a list of some foods and fluids that have 10–15 grams of carbohydrates in them.

Foods:

- 6 vanilla wafers
- 1 cup fresh sliced carrots
- ½ cup of cooked cereal
- 6 saltine crackers
- 1 slice of toast or bread
- 3 graham crackers
- ½ cup creamed cottage cheese with fruit
- 1 jar strained applesauce & apricots (baby food)
- ½ cup mashed potatoes
- ½ cup ice cream
- ½ cup fruit cocktail (juice packed)
- 5 whole-wheat crackers
- ½ cup custard

Fluids:

- 1 cup Gatorade
- 1 cup milk
- ½ cup fruit juice
- 1 cup canned tomato juice
- ½ cup root beer
- ½ cup sweetened instant tea
- ½ cup ginger ale
- 1 cup soup
- 1 cup low-calorie cranberry juice cocktail



10. Diabetes Complications

Diabetes can have serious, negative long-term effects (complications) on your whole body. Taking good care of yourself and keeping tight control of your blood sugar can help prevent or reduce these effects.

Heart disease

Having diabetes can increase your chances for heart disease or stroke. These are the leading causes of death in people with diabetes. But many of the things you do to control diabetes also help your heart and blood vessels.

These are ways to help:

- Quit smoking. Smoking is the worst thing you can do for your heart. It raises blood pressure, tightens blood vessels, and leads to fatty buildup in your arteries.
- Stay at a healthy weight.
- Eat a low-fat, healthy diet.
- Control high blood pressure.
- Control blood cholesterol and fats.
- Ask your doctor or nurse about daily aspirin.
- Exercise regularly.

Poor blood flow and infections

Poor circulation (reduced blood flow) occurs when blood vessels leading to the legs and feet become narrow or harden. This often happens earlier in people with diabetes. The legs and feet do not get enough white

blood cells to fight infection and simple cuts and sores can become serious ulcers and infections. These can lead to gangrene or amputation.

To improve blood flow to feet and legs:

- Don't smoke. Ask your doctor or nurse for help quitting if you need it.
- Control blood sugar and high blood pressure.
- Exercise regularly.
- Sit with uncrossed legs and walk around during the day if you sit a lot.
- Wear shoes that fit well with plenty of room for your toes.
- Do not wear hose or socks with tight, elastic tops, do not twist hose around legs to keep them up.
- Gently massage cold feet. Wear socks to bed if your feet stay cold.

Neuropathy

Nerve damage (neuropathy) is another complication of diabetes. It is most often related to how long a person has had diabetes and how well blood sugar is controlled. It can affect many areas of the body such as the bladder, bowel, and other organs. It often affects the feet and legs with symptoms like burning, aching, feeling of "pins and needles," or loss of feeling. All of these range from mild to severe. The discomfort is often worse

10. Diabetes Complications (Continued)

at night. With time and good blood sugar control, some of the damage can be reversed. But some nerve damage can't be reversed. Keeping tight control of your blood sugar is the best defense.

Eye problems

High blood sugar can cause changes in your eyes (diabetic retinopathy) and cause blindness. More than half of people with diabetes for more than 10 years have diabetic retinopathy. Having diabetes can also lead to cataracts and glaucoma.

All of these problems can be treated if caught early. For this reason, it is important to have your eyes dilated and examined once a year. Also, if you notice any changes in your vision, report them at once.

As with other complications of diabetes, tight control helps limit eye problems. Also, keeping high blood pressure under control can help prevent some eye complications.

See your eye doctor at least once a year.

Kidney problems

Kidney disease (nephropathy) or failure is a risk for people with diabetes. Your risk for it goes up with the number of years you have had diabetes. It also increased if you have high blood pressure and frequent urinary tract infections.

Kidney disease is very sneaky. A person can lose 70% of kidney function and not know it. Then when it is finally found, the kidneys are already damaged. Control and prevention are your best protection.

- Have a microalbumin urine test at least once a year to check for protein in the urine.
- Call your doctor or nurse at the first sign of a urinary tract infection (UTI). Symptoms include blood or pus in the urine, burning with urination, and/or frequent urination. This must be treated right away.
- Keep blood sugar and blood pressure as normal as possible.
- Talk with your doctor before having any tests where dyes are used.
- Cut back on salt intake. Beware of foods high in salt such as canned soups. Read labels for sodium content.

10. Diabetes Complications (Continued)

High blood pressure (hypertension)

People with diabetes are twice as likely to have high blood pressure as those who don't have diabetes. It is very important that you control high blood pressure.

High blood pressure is sneaky. You can have it and not know it. It damages the artery walls, letting fat and cholesterol build up more easily, but you may not feel a thing. Yet, over time, much damage can be done, causing strokes, heart attacks, or kidney failure.

This doesn't have to happen. Blood pressure is fairly easy to control. You can bring it down with weight loss, exercise, medicines, relaxation, and not smoking. Some people are also asked to eat less salt. Salt can cause the body to hold fluid, which makes the heart pump harder and blood pressure go up.

Overweight (obesity)

Weight control is important for anyone with diabetes. Your body uses insulin best when you are at or closer to a weight that's right for you. And with better use of insulin, blood sugar comes down.

Meal planning plus exercise helps you control weight. As you start to balance what you eat with how active you are, your weight will change. If you eat less than your body needs for activities, you will lose weight. If you eat more than your body needs, you will gain weight.

Ask your doctor to help you set a good weight goal. If you lose weight slowly (no more than 1–2 pounds a week) you are more likely to keep it off. If you have trouble losing weight, there are resources (such as counselors, dietitians and support groups) that can help.

Tips to remember:

1. Know and be aware of complications of diabetes
2. Ask your nurse or doctor for the signs and symptoms of complications for kidney or bladder disorders, strokes, amputation of extremities, eye complications, heart disorders, diabetic neuropathy

11. Word Search

M	G	D	Z	R	H	Y	P	O	G	L	Y	C	E	M	I	A	T
V	E	E	H	Y	P	E	R	G	L	Y	C	E	M	I	A	D	I
W	J	D	X	U	G	Y	L	N	L	I	X	Z	U	Z	V	N	S
B	T	G	I	E	X	L	D	I	A	U	N	G	B	K	Z	N	I
Q	N	X	Q	C	R	J	U	V	D	S	C	S	M	J	W	M	C
C	A	R	B	S	I	C	N	C	S	S	C	O	U	T	Y	W	K
S	T	R	E	S	S	N	I	G	O	S	U	E	M	L	T	M	D
U	M	A	J	S	Z	O	E	S	U	S	W	G	N	E	I	R	A
M	E	M	F	V	T	B	V	S	E	V	E	R	A	T	T	N	Y
H	E	A	R	T	D	I	S	E	A	S	E	W	U	R	I	E	S
E	Q	N	D	I	A	B	E	T	E	S	H	R	V	I	Q	A	R
T	Z	J	X	Z	F	T	I	F	O	O	T	C	A	R	E	X	Y

NASCENTIA

CARBS

DIABETES

EXERCISE

FOOT CARE

GLUCOMETER

GLUCOSE

HEART DISEASE

HYPERGLYCEMIA

HYPOGLYCEMIA

INSULIN

MEDICINES

SICK DAYS

STRESS

SUGAR

References

Agency For Healthcare Research and

Quality, “Health Literacy Universal Precautions Toolkit, 2nd Edition, Use Health Education Material Effectively: Tool #12,” 2018 (www.ahrq.gov/health-literacy/improve/precautions/toolkit.html)

Association of Diabetes Care & Education Specialists:

- “7 Self-Care Behaviors Healthy Coping,” (www.diabeteseducator.org/docs/default-source/living-with-diabetes/tip-sheets/aade7/aade7_healthy_coping.pdf)
- “Diabetes & Depression Double Trouble,” 2021 (www.diabeteseducator.org/docs/default-source/living-with-diabetes/tip-sheets/healthy-coping/depression_eng.pdf)
- “Heart Disease and Diabetes, Targets of Care,” 2020 (www.DiabetesEducator.org/HeartHealth)
- “Heart Disease and Diabetes: What is the Link?,” 2020 (www.diabeteseducator.org/docs/default-source/living-with-diabetes/tip-sheets/cardiovascular-disease/cvd_whatisthelink_updated_11-17d56ee436a05f68739c53ff0000b8561d.pdf)
- “Low Blood Sugar Treatment Planning Road Map, Get Ready, Get Set, Go!,” 2020 (www.diabeteseducator.org/docs/default-source/practice/practice-resources/hypoglycemia_treatment_planning_roadmap_v8.pdf)
- “Managing Low Blood Sugar,” 2019 (www.diabeteseducator.org/docs/default-source/practice/educator-tools/aade-lilly_lowbloodsugar_final.pdf)
- “Sick Day Management for Adults with Type I Diabetes,” 2020 (www.diabeteseducator.org/docs/default-source/education-and-career/sickday_adult.pdf)
- “Stress: A little Something For All of Us,” 2021 (www.diabeteseducator.org/docs/default-source/living-with-diabetes/tip-sheets/healthy-coping/stress_eng.pdf)
- “Heart Disease and Diabetes: Top 5 Questions for Your Diabetes Team,” 2020 (www.diabeteseducator.org/docs/default-source/living-with-diabetes/tip-sheets/cardiovascular-disease/cvd_top5questions_updated_11-17396fe436a05f68739c53ff0000b8561d.pdf?)
- “Heart Disease and Diabetes: Prevention,” 2020 (www.diabeteseducator.org/docs/default-source/living-with-diabetes/tip-sheets/cardiovascular-disease/cvdprevention.pdf)

References (Continued)

Centers for Disease Control and Prevention:

- “Diabetes,” 2021 (www.cdc.gov/diabetes)
- “National Diabetes Prevention Program,” 2021 (www.cdc.gov/diabetes/prevention)
- “National Diabetes Prevention Program, Tools and Resources,” 2021 (www.cdc.gov/diabetes/prevention/tools-resources.html)

National Institute of Diabetes and Digestive and Kidney Diseases, Medline Plus:

- “Four Steps To Manage Your Diabetes For Life,” (medlineplus.gov/diabetes.html)
- “Diabetes and Foot Problems” (medlineplus.gov/diabeticfoot.html)
- “Diabetes, Gum Disease, and Other Dental Problems,” (www.niddk.nih.gov/health-information/diabetes/overview/preventing-problems/gum-disease-dental-problems)
- “Preventing Type 2 Diabetes” (medlineplus.gov/howtopreventdiabetes.html)

National Institutes of Health, The Heart Truth (www.nhlbi.nih.gov/health-topics/education-and-awareness/heart-truth)

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