

# Kidney Care Toolkit



The American Diabetes Association® and DaVita® bring you this toolkit to help you understand the connection between diabetes and chronic kidney disease (CKD), lower your risk for CKD, and educate those close to you and your community.

How Long-Term Health Problems Are Related to Each Other	2
9 Tips to Help Build Healthy Eating Habits	3-4
Healthy Eating Guide	5
Jumpstart Your Movement Journey to Better Health	6-7
Get Your Labs Checked to Stay Healthy	8-9
What You Need to Know About Common Lab Tests	10-11
Questions to Ask About Your Lab Tests	12-12
Reading Food Labels	14-15



National Sponsor



# How Long-Term Health Problems Are Related to Each Other



All parts of your body work together to keep you healthy. Since they are all connected, some long-term health problems that affect one part of your body can affect other parts of your body, as well.

Common health problems that can affect more than one part of your body include:

- Diabetes
- Kidney disease
- High blood pressure
- Heart disease

## How do these long-term health problems affect each other?



**Diabetes** raises your risk for kidney disease and heart disease. When you have high blood sugar, it:

- Damages blood vessels and nerves in your heart. This increases your risk for heart disease.
- Harms the small blood vessels in your kidneys. This stops them from cleaning your blood as they should.



**Kidney disease** adds stress to your heart. When kidneys stop working well:

- Extra toxins and fluid can build up and harm other organs.
- It puts extra stress on your heart. This makes it harder for it to move blood through your body.



**High blood pressure (hypertension)** causes kidney damage and a higher risk of heart disease. When you have high blood pressure, it damages blood vessels throughout your body which:

- Damages your kidneys. This can lead to kidney disease.
- Causes the heart to work harder. This can lead to heart disease.



**Heart disease** can lead to high blood pressure and kidney disease. When your heart struggles to pump enough blood for your body, it:

- Makes your heart pump harder to get your blood where it needs to go. This extra effort can raise your blood pressure.
- Harms your kidneys. This can lead to kidney disease.

## If I manage one long-term health problem, can it improve or prevent other related problems?

Yes! When you and your doctor take steps to improve one health problem, it can improve or even prevent others. For example, if you bring down your blood pressure with medicine and a low-salt diet, it can also bring down your risk of kidney and heart disease. That is why it is so important to manage your long-term health problems. Not only will you feel better, but you will also improve or prevent other problems along the way.

## What can I do to manage these long-term health problems?

If you have one or more of these health problems, and have questions:



- Talk to your doctor. They can help you take steps to improve any health problems you have.
- Learn more about what you can do with these resources. **Scan this QR code** to learn more.



National Sponsor



<https://www.cdc.gov/kidneydisease/publications-resources/link-between-ckd-diabetes-heart-disease.html>

# 9 Tips to Help Build Healthy Eating Habits



Most foods can give your body the energy it needs to work. And some foods are better choices than others because they provide healthy energy (nutrients). Eating well with health problems, like diabetes, heart disease or kidney disease, doesn't mean giving up your favorite foods. It's about finding the balance between keeping the flavors you love and including the nutrients you need.

Here are the top 9 tips to help you build healthy eating habits:



**1. Plan what you will eat.**

Informed food choices will help you meet your health goals — and they'll taste great, too!

Do not skip meals. Missing a meal causes your blood glucose to drop. It can also make you eat too much at your next meal.\*\*



**2. Pay attention to portions.**

A good rule\* is to fill half your plate with non-starchy vegetables, one-quarter with lean protein, and one-quarter with quality carbs.



**4. Enjoy each bite you take.**

It takes 20 minutes for the brain to tell your body that you are full. Eat slowly. Take smaller bites. And chew your food well to help you control the amount you eat.



**3. Eat regular meals that give your body the nutrients it needs throughout the day.**

This will help keep your blood glucose (blood sugar) and energy at the right levels.

Avoid mindless eating. If you are craving sweet or salty snacks, pause to think about why. Eat when you are hungry. But do not eat out of stress or boredom.



5. **Read food labels.** Choose foods with a lot of the nutrients you need, like protein and fiber. It's a good idea to limit processed and packaged foods when possible.

When reading food labels, try to avoid foods that are high in:

- Calories
- Carbohydrates
- Fat
- Sodium

Added sugars and unhealthy fats are often found in:

- Crackers
- Creamers
- Desserts
- Frozen dinners
- Sodas
- Spreads



6. **Drink plenty of water** unless your health care provider tells you otherwise. Water is good for your body. Sometimes you feel hungry when your body needs water.

- Drink a glass of water before you eat a snack.
- Try to limit soda and other high-calorie drinks. They often have a lot of sugar and empty calories. Water, unsweetened drinks, or diet soda are a better choice.



7. **Choose healthy treats.**

- Keep healthy snacks at home, like:
  - Berries with cheese or nuts
  - Hummus or guacamole with carrots
  - Nut butter with apple slices or celery
- Avoid meal plans that are too strict. You may struggle to follow these plans.
- Eat a small treat now and then. This can help you stick to healthy eating habits.



8. **Lean on your health care team for support.** Social media may be fun, but it can be hard to recognize bad advice. Quick weight loss tricks or fad diets do not usually lead to lasting weight loss or health.



9. **Find the balance.** Add a couple of these steps to your daily routine. Do more when you feel like you are ready. Make changes as needed to stick to your plan. It takes time to build healthy eating habits. Be patient with yourself and proud of each step you take.

---

Talk to your health care provider or a registered dietitian to create an eating plan that works for you and your body. For diabetes- and kidney-friendly recipes, and more tips on healthy eating habits, visit [DaVita.com/Cookbooks](https://www.DaVita.com/Cookbooks).

---

\* "The Diabetes Plate Method" <https://www.diabetesfoodhub.org/articles/what-is-the-diabetes-plate-method.html>

\*\* Ahola AJ, Mutter S, Forsblom C, Harjutsalo V, Groop PH. Meal timing, meal frequency, and breakfast skipping in adult individuals with type 1 diabetes - associations with glycaemic control. Sci Rep. 2019 Dec 27;9(1):20063. doi: 10.1038/s41598-019-56541-5. PMID: 31882789; PMCID: PMC6934661.



National Sponsor



# Healthy Eating Guide

Eating well can help you feel your best. Use this guide to see which nutrients and foods may be best for you, according to your health needs.

✔ Great/Good

⚠ Limit/Good in moderation

	Diabetes	High Blood Pressure	Heart Disease	Kidney Disease
Nutritional Information				
Whole Foods	✔	✔	✔	✔
Carbohydrates*	⚠	⚠	⚠	⚠
Added Sugar	⚠	⚠	⚠	⚠
Sodium	⚠	⚠	⚠	⚠
Potassium	✔	✔	✔	✔
Healthy Fat	✔	✔	✔	✔
Fiber	✔	✔	✔	✔
Food Information				
Apples	✔	✔	✔	✔
Avocado**	✔	✔	✔	✔
Banana***	✔	✔	✔	✔
Beans (black, pinto, etc.)***	✔	✔	✔	✔
Broccoli	✔	✔	✔	✔
Cauliflower	✔	✔	✔	✔
Cucumber	✔	✔	✔	✔
Low-Fat Milk**	✔	✔	✔	✔
Tomatoes**	✔	✔	✔	✔
Peanut Butter***	✔	✔	✔	✔
Pears	✔	✔	✔	✔
Pineapple	✔	✔	✔	✔
Whole Grains (oats, brown rice, whole wheat bread)	✔	✔	✔	✔

\*Focus on “quality” carbs (e.g. vegetables, fruits, whole grains, legumes, low-fat dairy), \*\*High in potassium, \*\*\*High in potassium and phosphorus  
 Note: Foods that are naturally high in potassium and phosphorus can fit into a healthy diet. Research has shown our body may only absorb a portion of these minerals<sup>1</sup>. While beans are higher in potassium and phosphorus, they are a good protein substitute for meat.

**Download the free Diabetes- and Kidney-Friendly Eating cookbook from DaVita and the American Diabetes Association at [DaVita.com/Cookbooks](https://www.davita.com/cookbooks).**

This chart is for informational purposes only and is not intended to be a substitute for medical advice. Talk to your dietitian or doctor about what kind of diet may be right for you and your specific health needs.

1. “Reconsidering Plant-Based Diets in Patients Receiving Maintenance Hemodialysis”  
[https://www.ajkd.org/article/S0272-6386\(21\)00698-3/fulltext](https://www.ajkd.org/article/S0272-6386(21)00698-3/fulltext)



# Jumpstart Your Movement Journey to Better Health



Physical fitness and a healthy weight can do wonders for overall health. Regular movement can result in better sleep and more energy. And, it helps manage many health conditions, like diabetes and kidney disease.

Starting to be physically active may feel scary, and you might not know where to get started. Try these nine fitness tips to jumpstart your movement journey. See what works for you!



1. **Consistency is key.** Moving your body every day, even if it's just for a few minutes, can make a big difference to your health and how you feel.



2. **Walk before you run.** Starting slow is important so our bodies can safely adjust to new activities. Start by taking 10-minute walks a few times a day for five days each week. If that's too much, do what you can and start doing more based on how you feel.



3. **Limit the time you sit or lay down during the day.** If you haven't moved for more than 30 minutes, try to get up and move around. This helps improve circulation and blood glucose (blood sugar).



4. **Find creative ways to add movement into your daily routine.** You don't need a gym membership to stay healthy! Try these simple activities at home in your free time, or while doing other daily tasks.

- Do bicep curls with water bottles or soup cans during downtime while cooking.
- Lift your feet to do calf raises while brushing your teeth.
- March in place while waiting for your morning coffee to brew.
- Do pushups against a wall during TV commercials.



5. **Put it in writing.** Make a schedule of when, where and how you will be physically active — and stick to it.



6. **Join a class.** Mark your calendar to take part in regularly scheduled classes, like yoga, Zumba or water aerobics. Check your local gym or community recreation center schedules.



7. **Find a workout friend.** Activity with a friend makes movement more enjoyable, and you can keep each other accountable.



8. **Make it fun.** Listen to your favorite songs, a new audiobook or podcast while you are active.



9. **Mix it up.** Variety is the spice of life, so try different routines to keep it interesting. For example, you could walk on Monday, do housework or garden on Wednesday, and take a bike ride on Saturday.



## Do I have to use every tip to make progress?

No. Start by adding a couple of these tips to your daily routine. Do more as you can. Make changes as you need so that you will be able to stick to your plan.

It takes time to build a routine and improve your fitness. Be patient with yourself and be proud of each step you take.

Work with your health care team to find a healthy weight range for you. Be sure to check with your doctor before starting new physical activities and get more ideas on how to add movement to your life.

**For more tips on getting active, healthy habits and preventing or managing kidney disease, visit [diabetes.org/kidney](https://diabetes.org/kidney).**

1. Centers for Disease Control and Prevention. (2023, August 1). Benefits of physical activity. Centers for Disease Control and Prevention. <https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm>

2. Diabetes Care. 2016 Nov; 39(11): 2065–2079. Published online 2016 Oct 11. doi: 10.2337/dc16-1728  
URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6908414/>

# Get Your Labs Checked to Stay Healthy



Lab tests help you stay healthy. This handout explains how lab tests help you manage or prevent health problems, such as diabetes, kidney disease, or heart disease.

---



## What is a lab test?

A lab test is a test of your blood or urine (pee) to see how your body is working. Results from lab tests tell your health care provider about your health.



## Why should I get my labs checked?

Lab tests are health check-ups for your body. They can show if you have any health problems. This helps you know what to do to improve your health before problems get worse.



## What lab tests do I need?

Your health care provider will tell you what tests you need based on your age, medical history, and risk factors. Some common lab tests for overall health include:

- A1C: A blood test for diabetes
  - Blood glucose (blood sugar): A blood test for diabetes
  - Cholesterol: A test of certain fats in your blood
  - Glomerular filtration rate (GFR): A blood test for how well your kidneys work
-





## How can I manage my lab tests and my health?

Below are some things you can do to help manage your health with lab tests.

- **Schedule regular visits with your health care provider.** They can make sure you get the lab tests you need.
- **Follow fasting instructions.** When you fast, you do not eat or drink before a test. Some tests only work if you follow the fasting instructions.
- **Understand your lab test numbers.** Talk to your health care provider about what the test results mean. Ask if your numbers are normal or show any problems.
- **Ask what you need to do next.** Your health care provider may ask you to make changes in your lifestyle. They may also change your medicines or ask for more lab tests.
- **Stay aware of your health.** Lab tests can help prevent health problems. Be sure to take your results seriously. If your loved ones help with your health, be sure to tell them about your results and health plans.



## How can I learn more about lab tests and my health?

- Talk to your health care provider if you have any questions about the lab tests you need or have had.
- Get more health tips at [diabetes.org/kidney](https://diabetes.org/kidney).

# What You Need to Know About Common Lab Tests



It helps to know why lab tests for diabetes, risk for heart disease, and kidney function are important. These tests show you and your health care provider how your body is working and if you have any new health problems. Your health care provider will order tests based on your age, medical history, and risk factors.



## Diabetes

There are two types of tests related to diabetes. These are blood glucose (blood sugar) tests and the A1C (hemoglobin A1C) test.

- **Blood glucose tests:** These show your blood glucose level at the time of the test. This helps your health care provider see how well your body handles blood glucose.
- **A1C test:** This test shows your average blood glucose level over the last two to three months. It helps your health care provider see how well your body is managing your blood glucose over time.

If you don't already have diabetes and your blood glucose or A1C is too high, it may mean you have diabetes.

If you have diabetes, high blood glucose tests or A1C could mean you may need to work with your health care provider to make changes to your treatment plan. This could include changes to your eating plan, physical activity, or medications.



## Risk for Heart Disease

A cholesterol test is a common lab test that checks your risk of heart disease. It shows how much cholesterol is in your blood. Cholesterol is a waxy, fat-like substance. There are two types: low-density lipoprotein (LDL) and high-density lipoprotein (HDL).

- **LDL:** Also called “bad” cholesterol, LDL can cause build-up and blockages in the arteries, and can contribute to heart disease.
- **HDL:** Also called “good” cholesterol, HDL helps prevent build-up in the arteries.

High LDL levels are a major risk factor for heart disease and heart attack. If your LDL is high, you may need to work with your health care provider to make changes to your eating plan, physical activity, or medications.



## Kidney Function

Three tests are used together to see how well your kidneys are working. These tests are:

- **Blood Urea Nitrogen (BUN) Test**  
This test checks BUN levels in your blood. Urea nitrogen is waste that forms as your body breaks down proteins. Your blood carries it to your kidneys to get rid of it. When the kidneys don't work well, BUN can build up in your blood. High BUN levels can be a sign your kidneys are not working well.
- **Creatinine Test**  
This test checks the creatinine levels in your blood. Creatinine is normal waste made by your muscles. Your blood carries it to your kidneys to get rid of it. When the kidneys don't work well, creatinine can build up in your blood. High creatinine levels can be a sign that your kidneys are not working well.
- **Glomerular Filtration Rate (GFR) Test**  
This test shows how well your kidneys filter waste from your blood. The GFR test is ordered based on your creatinine level, age, gender, and other factors. A higher GFR means your kidneys are filtering well. A low GFR might mean your kidneys are not working well.

If these test results are not at the right levels, your health care provider may suggest more testing and making changes to your eating plan, lifestyle, or medicines.



## What should I do when I get my lab test results?

You need to know what your lab results mean and how to use them. You should:

1. **Talk to your health care provider.** Talk about your test results and what they mean for you.
2. **Follow your treatment plan.** Your health care provider will create a care plan that may include medicine, healthy eating, and physical activity.
3. **Ask questions.** If you are unsure about anything, your health care provider can help explain it in a way that makes sense to you.

---

**Lab tests help your health care provider give you the best care. They also keep you informed about your health. For more kidney health tips and information about lab tests, visit [diabetes.org/Kidney](https://diabetes.org/Kidney).**

---



# Questions to Ask About Your Lab Tests



Lab tests are important tools to stay healthy. Here are tips for when you talk with your health care provider about your results. This includes what questions you may need to ask to understand your results.

---



## What are lab tests?

Lab tests are tools for managing your health, especially if you have diabetes or kidney disease. These tests most often check samples of blood or urine. Sometimes, they test other body fluids or tissues.



## Why are lab tests and results important?

Lab tests and results help your health care provider:

- Check your overall health
- Find problems before they get worse
- See how well your treatments are working
- Know if your treatment plan, including your medications, eating plan, or activity level, needs changes



## What should I do to understand my lab results?

To get the most out of your lab results, you need to understand them. To do this, be prepared to ask health care provider questions and to write down their answers.

**Here are some helpful questions to ask:**

To know which tests were done and why:

- What does this test check for?
- Why is this test important to me?

To understand what the results of those tests mean:

- Are my results in the normal range?
- What do the results mean for my health?
- Do any of the results concern you?

To learn what happens next based on your test results:

- What changes can I make to improve my results?
- Do I need to change what I eat, my physical activity, or medication?
- Do I need any kind of treatment?

To plan your next steps to move forward:

- When should I get tested again?
- How often should I be tested?
- How can I keep track of my progress?



### **Other tips for your health care provider visits:**

Bring a caregiver or loved one with you to health care provider visits.

They can help you:

- Ask questions
- Take notes
- Understand what happens next

If you are more comfortable speaking a language other than English, ask your health care provider for translation services.

Remember, you are your own biggest supporter. Ask these questions, along with others you may have, to take an active part in your health care.

---

## **Where can I learn more?**

**For more kidney health tips, visit [diabetes.org/Kidney](https://diabetes.org/Kidney).**

---



# Reading Food Labels



When you know how to read food labels, you can make healthier choices to help you feel your best. A basic label can tell you about ingredients, calories, sodium, and more.



## Arm Yourself with Facts

Some health conditions may require you to limit certain nutrients in your diet, such as phosphorus, potassium, or sodium. A food label can help you:

- See a food's nutritional value.
- Compare foods more easily.
- Stay on track with your specific diet.
- Eat more or less of a particular nutrient



## 5 Tips for Understanding a Food Label

### Nutrition Facts

6 servings per container

**Serving size** 1 cup (230g)

Amount/serving	% Daily Value*
<b>Total Fat</b> 12g	<b>14%</b>
Saturated Fat 2g	<b>10%</b>
Trans Fat 0g	
<b>Cholesterol</b> 8mg	<b>3%</b>
<b>Sodium</b> 210mg	<b>9%</b>

1. **Check the serving size.** The number of servings shows how many portions are in the package. These are listed by grams or milligrams and % Daily Value.
2. **Check the % Daily Value.** This is the average amount of nutrients for someone eating 2,000 calories a day. Choose foods low (5% or less of the Daily Value) in saturated and trans fat and sodium.

Amount/serving	% Daily Value*
<b>Total Fat</b> 12g	<b>14%</b>
Saturated Fat 2g	10%
Trans Fat 0g	
<b>Cholesterol</b> 8mg	<b>3%</b>
<b>Sodium</b> 210mg	<b>9%</b>

3. **Watch for fat—the good and bad.** Good fats (polyunsaturated and monounsaturated) boost energy and help you absorb vitamins A, D, E, and K. The American Heart Association® (AHA) recommends 13 grams or fewer a day, including less saturated fat and cholesterol, and no trans fat.

Amount/serving	% Daily Value*
<b>Total Carbohydrate</b> 34g	<b>12%</b>
Dietary Fiber 7g	25%
Total Sugars 5g	
<b>Protein</b> 11mg	<b>8%</b>

4. **Add fiber.** Fiber keeps you fuller, helps balance blood glucose (blood sugar) levels, and supports weight loss. The Dietary Guidelines for Americans recommends 25–35 grams daily. Look for at least 10% Daily Value on the nutrition facts.

Amount/serving	% Daily Value*
<b>Total Carbohydrate</b> 34g	<b>12%</b>
Dietary Fiber 7g	25%
Total Sugars 5g	
Includes 4g Added Sugars 8mg	8%
<b>Protein</b> 11mg	

5. **Limit added sugars.** Sugar, also listed as ingredients ending in “ose” (sucrose and fructose) and corn syrup, can fill you with empty calories and will raise your blood glucose levels.



## Why the Ingredients List Matters

The ingredients list shows what’s in the food from the greatest amount to the least, with there always being the most of first ingredient listed. So, if you have diabetes, watch for and avoid foods that list sugar as one of the first ingredients. You’ll also see types of carbohydrate (including fiber and sugar), fat, and possible potassium and phosphorus additives listed. If you have chronic kidney disease (CKD) and need to limit phosphorus, check for and avoid ingredients that have “phos” in the name, such as “phosphoric acid” or “polyphosphate.” These are examples of hidden phosphorus. A good rule of thumb is to choose fewer processed foods with short ingredient lists.

**For more diet and nutrition information, visit [diabetes.org/kidney](https://diabetes.org/kidney).**

Talk to your dietitian or doctor about what kind of diet may be right for you and your specific health needs. Diet needs are different for every person based on their health condition, diagnosis and many other things.

