



10 tests and exams
everyone with diabetes
should be getting

Oregon Diabetes Resource Bank
Handouts to help people with diabetes

1. **A-1-C blood glucose (blood sugar) test** *(This lab test should be done every 3 to 6 months. It is different from blood testing you do yourself. The A-1-C tells what your blood glucose has been during the last few months.)*
2. **Blood pressure** *(at every office visit)*
3. **Blood test** to measure “good” cholesterol, “bad” cholesterol, and triglycerides in your blood *(once a year)*
4. **“Dilated” eye exam** to see if the blood vessels inside your eye are healthy *(once a year)*
5. **Urine test** to see if your kidneys are healthy *(once a year)*
6. **Complete foot exam** to see if the blood circulation, nerves, and skin in your feet are healthy *(a complete exam once a year, a brief foot exam at every office visit)*
7. **Exam of your gums and teeth** *(every 6 months)*
8. **Weight** *(at every office visit)*
9. **Flu shot** *(at the beginning of flu season every Fall)*
10. **Pneumococcal vaccination** *(ask your doctor if you need it)*



Why should you be getting these 10 tests, exams, and other care?

■ **Because you want to stay healthy.**

Having diabetes can lead to serious health problems called “complications of diabetes.” They include heart disease and stroke, kidney problems, nerve damage, problems with eyesight, sores and skin infections on feet, and gum disease that can lead to loss of teeth.

Getting the 10 tests and exams helps prevent or delay these health problems. Staying up to date on the 10 tests and exams helps find any new health problems at an early stage when the problems are still small and easier to treat.

National standards for quality care say that everyone with diabetes should be getting these 10 tests, exams, and other care. These quality standards are set by medical experts. They are based on results from medical research to find out which types of care work best for people with diabetes. (See references at the end of this handout.)

1

A-1-C blood glucose (blood sugar) test

You should have an A1C test every 3 to 6 months
(at least 2 to 4 times each year).

- **The A1C is a lab test that tells what your average blood glucose has been during the previous 2 to 3 months.**

A1C is pronounced “A – one – see.” The A1C test is different from blood testing you might do yourself. When you test your blood, this tells what your blood glucose is at the moment you do the test. The A1C test is like a summary score of what your blood glucose has been over a period of time.

- **How does the A1C test help you stay healthy?**

If your blood glucose stays too high over a long period of time, it can cause blood vessel damage and lead to serious health problems. **Often, there are no symptoms** to warn you when your blood glucose has been staying too high. To know for sure whether your blood glucose is staying at a healthy level or not, you need to have an A1C test at least twice a year.

- **What is the usual goal for the A1C?**

For many people with diabetes, the A1C should be less than 7. You and your health care team will decide on an A1C goal that is right for you.

- **If your A1C number is higher than your goal, it means that your blood glucose has been staying *too high* during the last 2 to 3 months.**

When your A1C number is too high, it’s a warning that you need to work on getting your blood glucose lower to help protect your health. The closer you can get to the goal number for your A1C, the better your chance of preventing or delaying health problems that can happen when you have diabetes.

- **If your A1C number is too high, work with your health care team on ways to get it down.**

Your doctor, diabetes educator, nutritionist, and others on your health care team can give you information and advice on what to do to get your blood glucose under better control. Your plan might include being more active, working on eating the right foods at the right times in the right amounts, and taking medications if prescribed.

■ **When your A-1-C number goes down, there is a big payoff for your health.**

If your A-1-C number is too high, work on getting it down. If it goes down by just one point (such as going from 9.0 down to 8.0), this can mean that your risk of long-term complications of diabetes goes down by as much as 40%.
(*Source: National Diabetes Education Program.*)



Ask your doctor or other health professional for the following handout: *The A-1-C blood glucose test: What it is and how it can help you.* Or download it for free from the Oregon Diabetes Program website (www.oregon.gov/DHS/ph/diabetes/resourcebank).

2

Blood pressure

Your blood pressure should be checked at every office visit.

■ **The purpose of checking your blood pressure is to make sure it is not too high, because high blood pressure can lead to heart problems and stroke.**

Diseases that damage the heart and blood vessels, including stroke, are the biggest cause of death for people with diabetes. Keeping blood pressure at a healthy level lowers the risk of heart attack and stroke. It also lowers the chance of dying from heart disease.

■ **For most people with diabetes, the goal is to have blood pressure less than 130 over 80.**

Goals for blood pressure can vary, so ask your doctor what your goal should be.

■ **If your blood pressure is too high, there are usually no symptoms.**

It's important to have your blood pressure checked at each office visit, because there are *usually no symptoms* to let you know if your blood pressure is too high.

■ **Keeping your blood pressure at a healthy level is one of the most important things you can do to stay healthy with diabetes.**

If your blood pressure numbers are too high, ask your health care team about what you can do to help get the numbers down. Often, this will mean lifestyle changes, such as healthier eating and being more active. Your doctor may prescribe blood pressure medication as well.

3

Blood test to measure “good” cholesterol, “bad” cholesterol, and triglycerides

You should have this blood test at least once every year.

■ Cholesterol and triglycerides are types of fat that are found in your blood.

Cholesterol is pronounced “koh-LESS-ter-all.” Triglycerides is pronounced “try-GLISS-er-ides.” Cholesterol includes both “good” cholesterol (also called HDL cholesterol) and “bad” cholesterol (also called LDL cholesterol).

■ To help protect against heart disease and stroke, this blood test checks to see if your cholesterol and triglycerides are at healthy levels.

If your cholesterol and triglycerides are not at the right levels for good health, you have a greater chance of getting heart disease or stroke. The goals for healthy levels of cholesterol and triglycerides can vary from person to person, so it’s important to check with your doctor to see what your goals should be.

- For “bad” cholesterol (LDL cholesterol), you want your number to be *low* enough. For people with diabetes, this usually means **less than 100**.
- For “good” cholesterol (HDL cholesterol), you want your number to be *high* enough. For men with diabetes, this usually means **higher than 40**. For women with diabetes, this usually means **higher than 50**.
- For triglycerides, you want your number to be *low* enough. For people with diabetes, this usually means **less than 150**.

■ If your cholesterol and triglyceride numbers are not at healthy levels, work with your health care team on a plan to improve them.

To get to healthier levels of cholesterol and triglycerides, you may need to make changes in your lifestyle (diet and exercise). Your doctor might prescribe medication.

■ Keeping a close watch on your cholesterol is especially important if you have diabetes.

There is a connection between cholesterol and blood glucose. When blood glucose stays too high, it can lead to higher levels of “bad” cholesterol and triglycerides. When you eat better and become more active, it can help you to improve your cholesterol numbers and keep your blood glucose at a healthy level.

4

“Dilated” eye exam to see if the blood vessels inside your eyes are healthy

You should have a dilated eye exam at least once every year.

- **A “dilated” eye exam checks for possible damage to the inside of your eyes that can cause problems with your vision.**

A dilated eye exam is different from the eye exam you get for glasses or contact lenses. When you get a dilated eye exam, you are given eye drops that help give the eye doctor a better look at the blood vessels deep inside your eyes. The doctor checks to see if there is any damage to these blood vessels. If damage to blood vessels inside your eyes is not found and treated, it can cause serious problems with your vision.

- **High blood glucose and high blood pressure make eye problems more likely.**

If your blood glucose stays too high over a long period of time, the high blood glucose can damage the blood vessels inside your eyes. Having high blood pressure can make this damage worse. If this blood vessel damage is not found and treated, it can lead to blindness.

- **Having dilated eye exams helps catch problems with your eyes at an early stage when treatment is easier and more successful.**

Eye problems can develop slowly. Often there are *no changes in your vision or other symptoms to warn you* until the blood vessel damage is severe. Having a dilated eye exam every year helps protect your vision. This exam helps find blood vessel damage at an early stage when treatment works better.



Ask your doctor or other health professional for the following handout: *Keeping your eyes healthy when you have diabetes*. Or download it for free from the Oregon Diabetes Program website (www.oregon.gov/DHS/ph/diabetes/resourcebank).

5

Urine test to see if your kidneys are working well

You should have this urine test at least once every year.

■ **High blood glucose and high blood pressure are harmful to your kidneys.**

If your blood glucose stays too high for a long time, it can damage the tiny blood vessels in your kidneys. High blood pressure can make the damage to these blood vessels worse. When your kidneys get damaged in this way, proteins leak from your kidneys into your urine.

■ **This urine test checks how well your kidneys are working by measuring the amount of protein in your urine.**

- This urine test is sometimes called a test of “kidney function.” It looks for a type of protein called “albumin” (pronounced “al-BYOO-min”). Having too much albumin in your urine means that your kidneys may be damaged.
- Damage to your kidneys can be serious, and it can even cause your kidneys to stop working. Having this urine test of kidney function helps protect your health by finding possible kidney damage at an early stage when it is easier to treat.

■ **To help *prevent* kidney problems, keep your blood glucose and blood pressure at healthy levels.**

If kidney problems become serious, it can lead to a need for kidney dialysis or kidney transplant. To help keep from having serious kidney problems, do your best to keep your blood glucose and blood pressure at healthy levels.

6

Foot exam to see if your skin, nerves, and blood circulation are healthy

You should have a *complete* foot exam at least once a year (plus a more limited foot exam at every office visit).

■ **Having diabetes can make foot problems more likely.**

When you have diabetes, the nerves throughout your body can get damaged, and nerve damage tends to be more common in the feet. Nerve damage can make your feet feel numb. If you develop sores or tender spots on your feet, you may not notice them right away if your feet are numb. Unless you notice sores and start treating them right away, they can get worse and take a long time to heal.

If your blood glucose stays too high for a long time, it can damage blood vessels and slow down the circulation of blood in your feet.

- If you have blood vessel damage and poor blood circulation in your feet, it is hard for sores to heal.
- Having high blood pressure can make blood vessel damage even worse.

■ Regular exams of your feet will help find any problems at an early stage when they are easier to treat.

The foot problems that are complications of diabetes can be serious. If you don't find and treat these problems at an early stage, they can even lead to amputation (surgical removal of toes or feet).

To find foot problems at an early stage, you need three types of exams:

1. At least once a year, you need to have a **complete and thorough foot exam by your doctor** or other health professional. This exam includes tests to see if your nerves and blood circulation are healthy.
2. Each time you have an office visit, it should include a **brief exam** of your feet. To help remind your health professional to look at your feet during the visit, you can take off your shoes and socks in the exam room.
3. You should **examine your own feet each day**, checking for any red spots, sores, or numbness. If you find any problems, tell your health professional.

■ To help *prevent* foot problems, keep your blood glucose and blood pressure at healthy levels and make sure that your shoes fit well.

7

Exam to see if gums and teeth are healthy



You should have this exam at least once every 6 months (twice a year).

■ High blood glucose makes gum disease more likely.

If your blood glucose stays too high, it causes damage to blood vessels throughout your body, including the small blood vessels that keep your gums and teeth healthy. When these blood vessels in your mouth are damaged, it can lead to infected gums, tooth decay, and even loss of teeth.

- **To find and treat gum disease and tooth decay at an early stage, have a dental exam every 6 months.**

If gum disease is found at an early stage, treatment works better. If your dental exam shows early signs of a problem, ask what changes you should make in brushing and flossing to help make your gums and teeth more healthy.

- **To help prevent gum disease and tooth decay, keep your blood glucose at a healthy level and take good care of your gums and teeth.**

8

Checking your weight

You should be weighed at each office visit (at least once every 12 months).

- **Being overweight is harmful to your health and common for people with Type 2 diabetes.**

Studies show that *more than half* of Americans are overweight. Often, people who have Type 2 diabetes are overweight when they first find out they have diabetes. Being overweight makes you more likely to get Type 2 diabetes. Being overweight also makes you more likely to get heart disease and many other health problems.

- **Having a healthy weight makes it easier to stay healthy with diabetes.**

When you are at a healthy weight, it is easier for you to keep your blood glucose and blood pressure at healthy levels. When you are able to keep your blood glucose and blood pressure at healthy levels, you help prevent the serious health complications of diabetes.

- **If you are overweight, losing weight is one of the best things you can do for better control of diabetes and better health.**

Having your weight checked at every office visit is part of quality care for diabetes and a good reminder about how your weight affects your health.

If you need to lose weight, ask for help from members of your health care team. Set goals for weight loss that are realistic and do your best to stay active and eat healthy foods.



Did you know that the average serving size for many foods has grown much larger over the years? Learn about “portion distortion” and get practical tips for weight loss at the government website run by the Centers for Disease Control and Prevention: www.cdc.gov/nccdphp/dnpa/nutrition/pdf/portion_size_pitfalls.pdf

9 Yearly flu shot

You should have a flu shot every year.

■ Getting a flu shot yearly can help keep you from getting the flu.

If you have diabetes, it’s important to prevent serious illness whenever you can. The flu can be a serious illness. When people with diabetes get the flu, they tend to get sicker than people who do not have diabetes. Getting sick can make it hard to keep blood glucose under control.

In general, doctors recommend that people with diabetes get a flu shot each year at the beginning of flu season, during the fall or the early weeks of winter. Sometimes the flu shot can prevent you from getting the flu altogether. If you do get the flu after you have had a flu shot, having had a flu shot can help keep you from getting as sick.

10 Pneumococcal vaccination *Ask your doctor if you need it*

Most people with diabetes should have this vaccination once (and then have it again at age 65 if it has been more than 5 years since they had it).

■ Getting a pneumococcal vaccination helps protect you from serious infections.

“Pneumococcal” is pronounced "new-mo-COCK-ul." The pneumococcal vaccination is sometimes called the "pneumonia shot." This vaccination helps protect you against certain serious infections caused by the germ “pneumococcus.” These include infections in the bloodstream and in the fluid around the brain. Like the flu, these infections can be especially dangerous for people with diabetes. Getting these infections can also make it hard to keep blood glucose under control.

■ Check with your doctor to see if you are due for a pneumococcal vaccination.

In general, doctors recommend that people with diabetes get a pneumococcal vaccination once. When they are 65 years old, they will need to have this vaccination again if it has been more than five years since they had it. Some people need it more often.

REFERENCES:

Standards of Medical Care in Diabetes – 2008.

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National Diabetes Information Clearinghouse: www.diabetes.niddk.nih.gov

National Diabetes Education Program: www.ndep.nih.gov

American Diabetes Association: www.diabetes.org