

Preventing Complications of Diabetes

Target Audience: People with diabetes

Objectives: Participants will:

1. Be able to describe the SIMPLE Method for preventing and controlling diabetic complications.
2. Be able to explain what in general causes diabetic complications.
3. Be able to identify some warning signs for complications.

Time Required: 15–20 minutes

Props: Pack of cigarettes; hand mirror; pair of old eye glasses; toothbrush and floss; blood glucose monitor; old calendar; blood pressure cuff; bathroom scale; walking shoes; exercise video

Handouts: “Be Smart About Your Heart,” “Control the ABCs of Diabetes,” “Control Your Diabetes for Life: Tips for Feeling Better and Staying Healthy” available from NDEP at www.ndep.nih.gov/; “The SIMPLE Method for Preventing Diabetes Complications”; “Warning Signs for Complications,” “Fighting Diabetes Complications”

Supplemental Handouts:

“If You Have Diabetes, Know Your Blood Sugar Numbers” also available from NDEP.

The following handouts are available from the National Institute of Diabetes and Digestive and Kidney Diseases. Go to www.niddk.nih.gov/ to locate the publications.

“Prevent Diabetes Problems Series: “Keep Your Eyes Healthy,” “Keep Your Feet and Skin Healthy,” “Keep Your Nervous System Healthy,” “Keep Your Teeth and Gums Healthy,” “Keep Your Heart & Blood Vessels Healthy,” “Keep Your Kidneys Healthy”	“Stomach Nerve Damage (Gastroparesis)” “Erectile Dysfunction” “Kidney Disease of Diabetes” “Kidney Failure: Choosing a Treatment That’s Right for You” “You Can Control Your Weight as You Quit Smoking”
“Diabetic Neuropathies: The Nerve Damage of Diabetes”	
“Foot Care Kit for Diabetes”	

Lesson Plan

No one wants to develop the complications of diabetes, whether they are short-term, such as a bladder infection, or long-term, such as blindness. New research has found that these complications are not inevitable. Good medical and personal care can delay and may even prevent these complications. (*Distribute the “Control Your Diabetes for Life: Tips for Feeling Better and Staying Healthy” handout.*)

What are the causes of diabetic complications? The main cause is high blood glucose levels. High blood glucose affects circulation and nerves. It limits the delivery of oxygen and nutrients to the cells. It also speeds up how quickly blood vessels narrow and stiffen, and promotes blood clots that can block veins and arteries. If you have high blood pressure along with your diabetes, the risk for all diabetic complications greatly increases.

Even if your family members or friends have had diabetic complications, this does not mean that you are doomed to suffer them. Recent findings and new technology for treating diabetes can reduce your risk. But you do need to work closely with your medical team and take good care of yourself every day.

(Distribute the “SIMPLE Method for Preventing Diabetic Complications” handout.) To begin, you may want to try the “SIMPLE Method” for preventing diabetic complications. While the Method looks “simple,” it requires a good deal of effort on your part. However, once you adopt these habits, you will reduce your chances of developing diabetic complications.

The “S” in SIMPLE stands for STOP SMOKING. *(Take a cigarette out of pack and break it in half.)* Smoking cuts circulation to the body cells. It slows down healing. It speeds up damage to the blood vessels. It also makes it hard for you to exercise, because you get winded easily.

Talk to your doctor and contact the local Lung Association and Cancer Society about how to quit. Even if you have stopped before and failed, try again. Most people who quit smoking have tried at least two to three times before they finally kick the habit. When you stop, you will feel better and so will everyone else who has suffered from your second-hand smoke.

Smoking does increase your metabolic rate, so you may gain weight after you quit. Exercise and follow a lower-calorie, lower-fat meal plan to help head this off. Those who exercise when they stop smoking have less weight gain, and go back to smoking less often, than those who don’t exercise.

The “I” in SIMPLE stands for INSPECTION. If you have diabetes, you need to inspect your feet daily for any red spots, blisters, wounds, or other breaks in the skin that could lead to an ulcer. Don’t expect pain to warn you that you have problems. Nerve damage can make you unable to perceive foot and lower leg problems.

Use a mirror (*show mirror*) to look at the bottoms of your feet and between your toes. Also inspect your shoes before you put them on. Shake them out to make sure that nothing has fallen into them that could hurt your feet. If you can’t inspect your feet well, have someone else do it for you.

If you find a problem, call your doctor. Every time you have a checkup, take off your shoes and socks so the doctor can look at your feet. You may need to see a podiatrist for special foot care and for shoes that control foot problems, which can lead to amputation.

Also have your eye doctor INSPECT YOUR EYES (*show eyeglasses*) yearly with a dilated eye exam. You need this exam even if you never have had problems with your vision. This exam can detect early changes in your eyes that could lead to diabetic eye

disease (retinopathy), cataracts, or glaucoma. These problems can become serious before you notice any symptoms. Don't wait until you can't see before you get help.

Another important INSPECTION is your regular visit to the dentist. (*Show toothbrush and floss.*) Uncontrolled diabetes can lead to serious gum disease. Without treatment, you may lose teeth. Brushing after meals and flossing daily, along with good blood glucose control, can protect your teeth and gums. Even if you have dentures you need to see the dentist often so that your gums will stay healthy.

The "M" in SIMPLE is for MONITOR. (*Show blood glucose monitoring device.*) You need to monitor your blood glucose to find patterns in your blood glucose readings. Your medical team will tell you how often to test and what your blood glucose goals should be. They can teach you what to do when your blood glucose readings are out of the target range. Always take your blood glucose records to your visits to the doctor or fax them first. Together you can use them to refine your diabetes treatment by finding the best medicine, meal plan, and activity for your needs.

You will also want to MONITOR your blood glucose control with an A1C test. (*Show 3 months of a calendar.*) This test, usually done at your doctor's office, shows your average blood glucose control over the last 90 days. Along with your home blood glucose testing, it will create a better picture of your diabetes control.

Your doctor will also want an annual test to check for protein in your urine (microalbuminuria). This will ensure that any changes that may lead to kidney problems are caught and treated early.

The "P" in SIMPLE stands for BLOOD PRESSURE. (*Show blood pressure cuff.*) Many people with type 2 diabetes also have high blood pressure. This is a deadly combination. When either is out of control, risk for heart disease, stroke, retinopathy (diabetic eye disease), and kidney disease increases. Put them together and complications develop even faster. Your blood pressure should be less than 130/80. Some experts even recommend less than 120/80. (Refer to the handout, "If You Have Diabetes, Know Your Blood Sugar Numbers.")

The best way to control blood pressure is to LOSE WEIGHT, which is what the "L" in SIMPLE stands for. (*Show bathroom scale.*) But other important ways are to eat less sodium; eat more fruits, vegetables, and nonfat and reduced-fat dairy products; and to exercise. Your doctor may also prescribe blood pressure medicine, which you must take every day. How you feel does not indicate how high your blood pressure is. High blood pressure is a silent killer and requires daily treatment.

Even if you don't have high blood pressure, your doctor may prescribe a blood pressure medicine called an ACE inhibitor. This medication seems to reduce risk for kidney problems and heart disease even when blood pressure is normal.

As I said, the "L" stands for LOSE WEIGHT. Just a 10–20 pound loss can really reduce your blood glucose and blood pressure. A registered dietitian can help design a meal plan that will work for you. You will need to eat regular meals with controlled portions and less fat and more fiber. If your blood cholesterol or triglycerides are high, eating very little solid fat and substituting olive, canola, and peanut oil may help. Also drinking plenty of water will fill you up.

The final “E” stands for EXERCISE. (*Show walking shoes and exercise video.*) Even a person in a wheelchair can exercise. There are special videos for those who may be less mobile. For those who can get around, mall walking programs, aerobics classes, biking, water aerobics, and even walks during lunch and breaks can help control weight, blood glucose levels, and blood pressure.

No one can achieve long-term weight control without regular activity. It doesn’t have to happen all at once or even be that difficult. You just need to make enough of an effort to breathe a little heavier. Even several short sessions per day of walking, taking the stairs at work, or marching in place in front of the TV will help. The goal is just to move around more. You will have more energy, be less stressed, and improve your blood glucose and blood pressure levels.

Though we hope that the SIMPLE Method will reduce your risk for diabetic complications, it is not a guarantee that you will never develop them. However, by watching for early signs of problems, you can get treatment before they become serious. Here are some symptoms that should alert you to the need to see a doctor immediately and be checked for a complication. (*Distribute and review “Warning Signs for Diabetic Complications” handout.*)