UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
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MINTO PREVENTION & REHABILITATION CENTRE
CENTRE DE PREVENTION ET DE READAPTATION MINTO

Managing Diabetes

About This Kit

Unfortunately, there is no cure for diabetes. People with type 1 diabetes must follow a sensible meal plan and take insulin injections to control their blood glucose level. Exercise may also help people with type 1 diabetes reduce their increased risk for heart attacks and stroke.

Many people with type 2 diabetes have been able to lower their blood glucose level into the normal range and control the disease by following a sensible meal plan, exercising regularly, and managing their weight. Sometimes oral hypoglycemic (blood glucose lowering) medications and even insulin may also be needed to help control their blood glucose level.

Learning you have diabetes can be frightening. If you have diabetes, this kit can help you learn more about how to control your blood glucose level and avoid the complications of diabetes. If you are a caregiver for someone with diabetes, the information in this kit may help you help a friend or a family member.

Diabetes is a chronic illness that requires continuing medical care and education. Your care should be provided by a physician-coordinated diabetes management team. Such teams may include physicians, nurses, dietitians, mental health professionals, and other healthcare professionals with expertise and a special interest in diabetes.

Please keep in mind that this kit and the Heart Institute Prevention and Rehabilitation Centre (HIPRC) Lifestyle Management and Cardiovascular Risk Reduction Programs are intended as a supplement to, not a substitute for, participation in a diabetes management program or your physician's advice. In particular, if you are taking insulin, we recommend you obtain additional assistance from your diabetes management team when implementing our exercise or nutrition recommendations. In this kit you will:

Step 1. Know how to control blood glucose
Step 2. Manage your lifestyle
Step 3. Prevent acute and chronic complications

This kit is one of several HIPRC educational kits on Preventing and Reversing Coronary Heart Disease. Ask about other kits in this series, including:

- Understanding Coronary Heart Disease

- Understanding Risk Factors for Coronary Heart Disease
- Understanding Cholesterol and Triglycerides
- Preventing and Managing High Cholesterol and Triglycerides
- Understanding Blood Pressure
- Preventing and Managing High Blood Pressure
- Understanding Stroke
- Understanding Risk Factors for Stroke
- Understanding Diabetes
- Exercising With Diabetes

Step 1

Know How to Control Blood Glucose

Uncontrolled high blood glucose levels (hyperglycemia) are the hallmark of type 1 and type 2 diabetes. Treatment aimed at lowering blood glucose to or near normal levels benefits all people with diabetes. It helps reduce symptoms, prevent coma due to high blood glucose level, and reduce the risk for many chronic complications.

Keeping your blood glucose near or at a normal level requires that you learn as much as possible about your diabetes and how to manage it. Diabetes is a self-care disease. For most people, having diabetes also means following an intensive treatment program. Based on your specific needs, a comprehensive diabetes management program may include the following components:

- Using insulin and/or oral blood glucose-lowering medications
- Self-monitoring of blood glucose at an appropriate frequency
- Eating healthy
- Exercising regularly
- Learning to prevent and treat low blood glucose (hypoglycemia) and other acute and chronic complications
- Assessing progress toward your treatment goals on a regular basis
- Obtaining the support to continue to learn about and manage your diabetes

Specific Goals of Treatment

Individual treatment goals should take into account a variety of factors, including your ability to carry out the treatment plan, your risk for dangerously low blood glucose levels, your age, and the presence of other medical conditions.

Target blood glucose ranges are outlined in the kit "Understanding Diabetes." As a review, for most people with diabetes suggested goals are as follows:

	TARGET GOAL	ACTION MAY BE NEEDED	ACTION REQUIRED
Fasting Glucose (mmol/L)	4.0 - 7.0	7.1 - 10	>10
Glucose 1-2hr after meal (mmol/L)	5.0 - 11	11.1 - 14	>14

"Action May Be Needed" depends on your individual circumstances and may range from improved self-management to referral to a diabetes specialist physician. The above ranges may not be the best ones for you. Please talk with your doctor about what your ranges should be.

If you are taking insulin and/or oral blood glucose-lowering medications, it is especially important for you to monitor your blood glucose levels on a daily basis. To monitor for and prevent dangerously low blood glucose levels, most people who take insulin should test their blood glucose at least three or four times a day.

There is another assessment that can complement day-to-day testing. Commonly referred to as *glycated hemoglobin* or *hemoglobin A1c*, this measurement reflects the previous two to three months of blood glucose control. Hemoglobin A1c has been shown to predict the risk for the development of many of the chronic complications of diabetes. Hemogloblin A1c tests done at different laboratories may give different results. The Canadian Diabetes Association recommends a hemoglobin A1c value of less than seven percent (7% or .07). If your hemoglobin A1c value is consistently greater than eight percent (8% or .08), your health care team will likely make changes in your treatment plan.

Step 2

Manage Your Lifestyle

Take Medications If Needed

Insulin is a hormone produced by your pancreas. Insulin helps your cells take up glucose from the blood. Glucose is used for energy. If your pancreas doesn't make enough insulin, it can be injected. Your health care team should teach you what you need to know about insulin therapy if it is prescribed for you. Oral medications are pills you take by mouth. Certain types of oral diabetes medications cause the pancreas to secrete more insulin while others help your body use the insulin it makes more efficiently.

Be aware that medications you may be taking for high cholesterol, high blood pressure, arthritis, or other illnesses can interact with your diabetes medications. Your doctor will know how to make necessary adjustments. It is your responsibility to take your medications exactly as prescribed and report any problems to your health care team immediately.

Eat Healthy

Eating healthy helps control your blood glucose levels and reduces your risk for coronary heart disease and some of the other important potential complications of diabetes. *If you are taking insulin, you should also consult with a registered dietitian about your meal plan, if you have not already done so.*

You will notice that the dietary recommendations for people with diabetes are similar to those for the general population.

The Healthiest Meal Plan

- High in complex carbohydrates and fiber
- Low in simple sugars
- Low in saturated fat and cholesterol
- Moderate in protein

Eat complex carbohydrates, but cut back on simple sugars. Complex carbohydrates, such as breads, cereals, fruits, and vegetables are the foundation of good nutrition. Complex carbohydrates are absorbed more slowly than simple sugars and may cause less of an increase in blood glucose levels. It is a good idea to cut back on simple sugars, such as those found in honey, syrup, jam, jelly, candy, regular sodas, canned fruit in syrup, cakes, pies, cookies, ice cream, and other sweets. They are high in calories and low in vitamins, minerals, and fiber. Foods containing large amounts of simple sugars

often also contain large amounts of fats. Sugar in food has many names, but most ingredients ending in "-ose" are simple sugars. When you do eat simple sugars, make them part of your healthy diet. Don't eat them as extras. Eating less simple sugar will also help you to reduce your triglyceride level and manage your weight.

Tips for Eating Less Sugar

- Use sugar substitutes such as saccharine or aspartame in moderation in place of table sugar, honey, or molasses.
- Drink diet sodas or other sugar-free drinks in place of regular sodas.
- Choose fruit canned in water rather than syrup.
- Substitute low-sugar or light jams for regular jams. Remember to use all sweets in small amounts.

Eat high-fiber foods. The best sources of fiber come from foods in the bread and cereals, fruits, and vegetables food groups. Dried peas, beans, and lentils are also excellent sources of fiber. There are two forms of fiber: insoluble and soluble. Cellulose, the woody part of all plants, is insoluble fiber. Its purpose is to aid in digestion and add bulk to stools. The soluble type of fiber, which comes from grains, such as oats, barley, and lentils, and fruits, vegetables, and dried beans and peas, is helpful in lowering blood cholesterol levels. Generally, eating 20 to 35 grams of soluble and insoluble fiber each day from a wide variety of foods is recommended. Increase your fiber gradually to give your digestive system time to adjust, and drink adequate water. Read food labels carefully to be sure foods containing soluble fiber aren't loaded with fat or sugar.

Tips for Increasing Fiber

- Select whole-grain breads and pastas
- Choose oatmeal and high-fiber ready-to-eat cereals
- Eat the skins of fruits and vegetables when possible
- Eat the whole fruit rather than drink fruit juice

Eat less fat, especially saturated fat. Eating less fat, especially saturated fat, can help you manage your weight and lower your LDL ("bad") cholesterol level. Choose monounsaturated fats such as canola oil and olive oil instead of saturated fats. Saturated fats are found primarily in animal products, dairy products, and tropical oils such as palm, palm kernel and coconut oil. Remember to use all fats sparingly.

Tips for Avoiding Fat

- Choose low-fat or non-fat dairy products.
- Eat smaller servings of meat.
- Choose lean cuts of meat.
- Trim all visible fat from meats and remove skin from poultry.
- Avoid fried foods and adding fat in cooking.
- Use non-fat cooking sprays.
- Limit added sauces or gravies and choose low-fat or fat-free condiments and salad dressings.

Eat less cholesterol. Cholesterol in food comes from animal sources. Some cholesterol is found in the meat of all animals, including beef, pork, lamb, chicken, and fish. Egg yolk has the most cholesterol, followed by organ meats (liver, kidney, sweetbreads, brains).

Eat less sodium. Most people eat more sodium than they need. Excess sodium may increase your blood pressure. HIPRC recommends less than 2,300 mg of sodium per day. This is especially important for people with high blood pressure, heart failure, or kidney disease.

Tips for Reducing Sodium

- Don't add salt to food at the table or when cooking.
- Read the food label of every food you buy to check the sodium content.
- Avoid processed foods and condiments that are high in sodium.
- Choose low-sodium or sodium-free foods.
- Try a salt substitute.

Avoid alcohol or drink only in moderation. The same precautions regarding the use of alcohol that apply to the general public also apply to people with diabetes. No more than two drinks per day for men and no more than one drink per day for women are recommended. If your diabetes is well controlled and you drink alcohol in moderation and with meals, your blood glucose is not likely to be affected. For people with diabetes who take insulin or oral hypoglycemic agents, drinking alcohol on an empty stomach is more likely to result in hypoglycemia (low blood glucose levels). Hypoglycemia can occur at blood alcohol levels less than mild intoxication. Of course, drinking too much alcohol can also increase your blood pressure and put you at risk for accidents. Because alcohol is high in calories, drinking alcohol may make it more difficult to manage your weight.

Your Meal Plan

Your meal plan is designed so that you will eat more than half of your total daily calories as complex carbohydrates and you will eat less simple sugars, fat, saturated fat, cholesterol, and sodium. In the educational kit "Planning Healthy Meals and Snacks," various meal plans are introduced showing the number of servings of foods from each of the food groups to eat at each meal and for snacks.

Ask your mentor which meal plan is recommended for you. Your meal plan will provide you with the nutrition you need to be healthy and the number of calories you need to achieve and/or maintain your healthier weight goal. If you are taking insulin, please get assistance from your diabetes management team when implementing our guidelines. If you have kidney disease, you may need to eat less protein. Be sure to obtain guidance from a registered dietitian to make these adjustments.

My Meal Plan is _____.

Snacks are an important part of the meal plan, especially for people with diabetes who take insulin. Adding snacks between meals helps space your calories more equally throughout the day. Snacks can help keep your blood glucose in balance and keep you from getting too hungry between meals or overeating at meals. Eat snacks from the "Foods to Choose" sections of the food groups with the "smiley faces" in your Food Diary. A chart listing healthier snacks is also included in the education kit entitled "Planning Healthy Meals and Snacks."

More information to help you eat healthy is provided in the HIPRC educational kits on nutrition and weight management.

Control Diabetes Through Weight Management

Many people with type 2 diabetes have been able to lower their blood glucose level and control their diabetes by losing weight and keeping it off. Fat cells are resistant to insulin. The more body fat you have, the less effectively your body uses insulin and the higher the glucose blood level. Other benefits of weight management for people with diabetes includes reducing blood pressure, LDL ("bad") cholesterol, and triglycerides.

Review your Personal HIPRC Goals to see the body weight goals recommended for you.

My Body Weight Goals

- Short-term: Achieve and/or maintain a body weight of _____ pounds or less.
- Long-term: Achieve and/or maintain a body weight of _____ pounds or less.

You can achieve and/or maintain your healthier weight goals by following your meal and exercise plans. HIPRC provides a safe and effective way for you to lose weight and keep it off long-term. You should lose weight gradually – no more than one to two pounds per week.

Exercise Regularly

People with type 1 diabetes should not be led to believe that exercise will consistently improve their blood glucose control. It might not. Regular exercise is still beneficial for most people with type 1 diabetes, especially because of the role it plays in reducing the risk for heart attacks.

Research has shown that increased physical activity is very effective in preventing and managing type 2 diabetes. And, the preventive benefit of regular exercise seems to be greatest for those at the highest risk for diabetes: people who are obese, who have high blood pressure, and who have parents with diabetes.

There are many benefits of regular exercise for all people with diabetes.
Regular exercise:

- Improves insulin sensitivity (enables cells to use insulin more effectively).
- Improves cardiovascular fitness.
- Reduces risks for developing coronary heart disease, stroke, and osteoporosis.
- Lowers blood pressure and triglycerides, and increases HDL ("good") cholesterol.
- Helps maintain lean body tissue (muscle) as you lose weight (fat). As much as 25 percent of the weight lost through dieting alone is lean body mass.
- Eases the strains and tension you may feel, both because of your diabetes and from everyday life stressors. Exercise may help you feel better, sleep better, have more energy, and feel more self-confident.

Potential Risks of Exercise

Exercise is not risk free for everyone, especially for people with diabetes if they don't control their blood glucose level. Depending upon the type of diabetes they have, the medications they are taking for their diabetes, and the presence of chronic diabetes complications, strenuous workouts can pose potential risks for some people.

Potential risks associated with exercise include:

- Hypoglycemia (an excessive drop in blood glucose levels) for people taking insulin or oral hypoglycemic medications
- Hyperglycemia (an excessive rise in blood glucose levels) and, for those with type 1 diabetes, ketoacidosis (a dangerous condition that can result in coma)
- Cardiac complications
- Retinal bleeding in the eye
- Protein in the urine
- Excessive rise or fall of systolic blood pressure
- Steep rise in body temperature
- Greater risk of foot injuries and problems

Overall, for most people with diabetes, the benefits of regular exercise far outweigh the risks. Ultimately, all people with diabetes should have the opportunity to benefit from the many valuable effects of exercise.

At HIPRC, we follow the guidelines of the Canadian Diabetes Association, and other expert groups to design safe and effective exercise programs for people with diabetes. More information about exercise is provided in the kit entitled "Exercising With Diabetes."

Step 3

Prevent Acute and Chronic Complications

Your physician and other members of your health care team should work with you to develop your personalized diabetes management plan.

Diabetes is a self-care disease. If you have diabetes, you can be healthier and reduce your risk for chronic complications of diabetes by following the recommendations of your health care team. Because you have diabetes, you will need extra screenings and assessments in addition to your regular preventive exams. Your specific schedule of care will be determined by your health care team. Keep all appointments for check-ups, assessments, and screenings.

Your diabetes management plan should include:

- Short- and long-term goals
- Medication instructions
- Nutrition guidelines
- Recommendations for exercise and other appropriate lifestyle changes (for example, stop smoking)
- Self-care education for you and your family
- Instructions for monitoring your blood glucose levels and urine for ketones, including the use of a record system
- Schedule for eye and visual exams, pneumococcal and influenza vaccines, dental exams, and follow-up appointments
- Consultation for other specialized services as needed
- Instructions on when and how to contact your physician or other health care team members
- For women of childbearing age, discussion of contraception and the importance of optimal blood glucose control before conception and during pregnancy

Continuing medical care is an essential part of the diabetes management plan for every person with diabetes. The recommended frequency of visits to your health care team depends on several factors, including the type of diabetes you have, your blood glucose goals and how successful you are in achieving your goals, changes in your treatment plan, and any complications of diabetes or other medical conditions you may have. Generally, you should see your health care team at least every four months until you have achieved your treatment goals. After you have achieved your goals, the frequency of your visits may be decreased as long as your diabetes remains controlled. However, you must learn to recognize problems with your blood glucose control as indicated by your self-monitored blood glucose records and to promptly report concerns to your health care team. You should also learn to recognize the early signs and symptoms of acute and chronic complications and to report them immediately to your health care team.

At follow-up appointments with your health care team, your diabetes management plan should be reviewed to determine your progress in meeting your goals and to identify problems. This review should include:

- Control of blood glucose levels
- Assessment of complications
- Control of blood pressure
- Control of blood cholesterol and triglyceride levels
- Nutrition assessment
- Frequency of low blood glucose attacks
- Adherence to all aspects of self-care
- Evaluation of participation in exercise
- Follow-up of referrals
- Assessment of emotional and social adjustments

Ongoing Laboratory Evaluations

- A glycated hemoglobin or hemoglobin A1c test will be done when you first learn you have diabetes and on an ongoing basis as part of your diabetes management plan. Because hemoglobin A1c reflects blood glucose control over the previous two to three months, measurements are taken approximately every three months. Generally, people who have their blood glucose well controlled should have their hemoglobin A1c tested at least two times a year. People who have made changes in their diabetes management plan or who do not have their blood glucose within the target range should have their hemoglobin A1c tested more frequently, usually four times per year. Your health care team will tell you how frequently you should measure your hemoglobin A1c and interpret the results of your tests. Hemoglobin A1c tests done at different laboratories may give different results. The Canadian Diabetes Association recommends a hemoglobin A1c value of less than seven percent (7% or .07). If your hemoglobin A1c value is consistently greater than eight percent (8% or .08), your health care team will likely make changes in your treatment plan.

- Adults with diabetes should have their fasting blood cholesterol, LDL ("bad") cholesterol, HDL ("good") cholesterol, and triglyceride levels measured annually or more frequently if needed. Review your Personal HIPRC Goals to see the values recommended for you. Ask about the kit "Preventing and Managing High Cholesterol and Triglycerides."

  My Cholesterol Goals

  Reduce and/or maintain LDL cholesterol below _____ mmol/L.

  Increase and/or maintain HDL cholesterol above _____ mmol/Ll.

  My Triglyceride Goal

  Reduce and/or maintain triglycerides below _____ mmol/L.

- The presence of a protein called *albumin* in the urine is one of the earliest warning signs of kidney disease or *nephropathy*. Diabetes is one of the most common causes of kidney failure. Screening for albumin in the urine of people with diabetes allows

kidney disease to be identified early. For people with type 1 diabetes, screening for albumin in the urine should begin with puberty and after five years' duration of the disease. Because it is difficult to determine the precise date when type 2 diabetes begins, screening for albumin in the urine should begin as soon type 2 diabetes is diagnosed. If albumin is detected, the progression of kidney disease can be slowed by improving blood glucose control, aggressively treating high blood pressure, and using medications called ACE (*angiotensin converting enzyme*) inhibitors. In some people, limiting the amount of protein they eat may also slow the progression of kidney disease. If no albumin is present in the urine, then an annual follow-up test should be performed.

Preventive Care

- Get a flu shot every year in September, October or early November.

- Have a pneumococcal vaccination to reduce your risk for pneumonia. A one-time repeat vaccination is recommended for people over 64 years of age who were previously immunized when they were younger than 65 if the vaccine was administered more than five years ago. A repeat vaccination may also be needed under certain other circumstances, such as the presence of chronic kidney disease and after an organ transplant.

- If you have had diabetes for three or more years, were diagnosed with diabetes after age 30, or have visual symptoms or eye problems, have a complete eye exam every year that includes having your eyes dilated by an ophthalmologist or optometrist. If eye disease is detected, more frequent examinations may be required.

- Have your dentist or dental hygienist clean your teeth every six months. Tell your dentist you have diabetes. Take care of your teeth and gums to avoid infection. Report any gum sores, swelling, or bleeding immediately. Your dentist should take full mouth x-rays every two years to check for bone loss, which may be your first warning sign of a complication of gum disease called *periodontitis*.

- Have a thorough foot examination at least once a year. You may require more frequent examinations if you have any conditions that place you at an increased risk for foot ulcers and amputations. High risk foot conditions include:
  -Peripheral neuropathy (numbness in the legs or feet)
  -Peripheral vascular disease (blockages in the arteries of the legs)
  -History of ulcers (sores or wounds that do not heal) or amputation
  -Foot deformities (bunions, hammertoes, and others)
  People with peripheral neuropathy should have their feet inspected at every contact with a healthcare professional.

- Have your blood pressure checked whenever you see your doctor. All adults with diabetes should maintain their blood pressure below 130/85 mmHg. Ask about the kit entitled "Preventing and Managing High Blood Pressure."

- Speak to your doctor about additional heart-related tests if you:
  -Have known heart or vascular disease
  -Have symptoms of heart disease, such as chest discomfort with physical activity
  -Have two or more risk factors for coronary heart disease
  -Plan to begin a vigorous exercise program and have any of the following:
    Over age 35
    Type 2 diabetes of more than 10 years' duration
    Type 1 diabetes of more than 15 years' duration
    Any additional risk factor for coronary heart disease
    Retinopathy (disease of the vessels in the retina of the eyes)
    Nephropathy (disease of the small blood vessels in the kidneys)
    Peripheral vascular disease (blockages in the arteries of the legs)
    Autonomic neuropathy (damage to nerves that control key internal organs)

Self-care Practices

- Make staying well a priority. People with diabetes are more likely to require hospitalization because of an infection or dehydration. It is critical that you eat as prescribed on your meal plan and drink adequate fluids.

- If you get sick with a minor illness, continue to take your medications and monitor your blood glucose. Call your health care team if you have any problems or symptoms of complications.

- Keep a daily record of important information about your diabetes. Share this information with your health care team at each visit.

- Quit smoking if you smoke. Smoking and diabetes are a risky combination. Ask about the HIPRC smoking cessation program.

- Learn ways to prevent or deal with stress. Stress can upset the balance you are trying to achieve in managing your diabetes. See the HIPRC educational kits on stress management.

- Take care of your feet and check them every day. Chronic complications of diabetes include poor circulation and numbness in the feet. These complications can cause serious foot problems that could lead to amputations. Look for cuts, sores, blisters, cracks, or any other breaks in the skin. Check between your toes and use a hand mirror if necessary to check the bottoms of your feet. Your feet should not swell or feel tender to the touch. Also look for any changes in temperature ("hot spots") or changes in color (blue, bright red, or white spots). If it is difficult for you to check your feet, ask someone else to check them for you. Report any problems to your health care team immediately.

Foot Care Tips

These tips are especially important for people with high-risk foot conditions.

- Wash your feet with warm water and mild soap every day. Don't put your feet in hot water or soak or scrub your feet.

- Dry with a soft towel, especially between your toes. Never allow your feet to remain continually moist. If necessary, use a cream to massage and moisturize the tops and bottoms of your feet. Apply the moisturizer sparingly between your toes. Use a medicated foot powder between your toes to keep them dry and clean.

- Don't use drying medicines, such as iodine, rubbing alcohol, Epsom salts, or peroxide on your feet. Don't use adhesive tape on the skin.

- File, don't cut, your toenails straight across and diagonally at the corners. Don't try to remove corns or calluses yourself. See a podiatrist.

- Buy good walking shoes and break them in slowly. Always wear socks without holes and change your socks every day. Mended socks can rub blisters. Avoid socks that are too tight.

- Check the insides of your shoes each day for rough areas or foreign objects. Don't wear high heels, open toed shoes, garters, or elastic support bandages.

- Don't go barefoot, even at the beach. Watch out for rocks, stones, curbings, and furniture legs.

- Don't sit with your legs crossed. Get up and walk around some every hour to improve your circulation.

- Keep your feet warm. Wear socks to bed, if necessary.

Managing Diabetes

Before Your Next Visit

In the time between your visits with your mentor, you should read and complete your educational kits. Use this sheet to record your work. Think of this as "homework." Bring this sheet with you to your next visit.

- ❑ Complete the statements in "Check Yourself" to be sure you understand the key concepts in this kit.

Check Yourself

1. Medications taken for high cholesterol, high blood pressure, arthritis, or other illnesses can _ _ _ _ _ _ _ _ with diabetes medications.
2. If you are taking insulin, you should consult with a registered _ _ _ _ _ _ _ _ _ about your meal plan.
3. The dietary recommendations for people with diabetes are generally the same as those for the general _ _ _ _ _ _ _ _ _ _.
4. It is a good idea to cut back on _ _ _ _ _ _ sugars because they are high in calories and low in vitamins, minerals, and fiber.
5. Eating less fat, especially _ _ _ _ _ _ _ _ _ fat, can help you manage your weight and lower your LDL cholesterol level.
6. Many people with type 2 diabetes have been able to lower their blood glucose levels and control their diabetes by _ _ _ _ _ _ _ _ _ _ _ _ and keeping it off.
7. Increased _ _ _ _ _ _ _ _ activity is effective in preventing and managing type 2 diabetes.
8. _ _ _ _ _ _ _ _ _ _ _ _ _ is the major risk of exercise for people with diabetes who take insulin or oral hypoglycemic agents.
9. Diabetes is a _ _ _ _- _ _ _ _ disease.
10. _ _ _ _ _ _ _ and diabetes are a risky combination.
11. Take care of your _ _ _ _ and check them every day.

Answers: 1) interact; 2) dietitian; 3) population; 4) simple; 5) saturated; 6) losing weight; 7) physical; 8) Hypoglycemia; 9) self-care; 10) Smoking; 11) feet

Write any questions for your mentor here.