



Remarkable Woman: That's You!



REMARKABLE

That's you.



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Produced by:

CommunityVoices

**HEALTHCARE FOR THE UNDERSERVED
Morehouse School of Medicine**

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UNDERSTANDING DIABETES

A GUIDE FOR AFRICAN-AMERICAN WOMEN

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PRE-SESSION QUESTIONNAIRE

1. Who is at high risk for diabetes?
2. Define diabetes.
3. What is the difference between Type 1 diabetes and Type 2 diabetes?
4. What type of diabetes is most common among African Americans?
5. Describe the symptoms of diabetes.
6. Describe the treatments for diabetes
7. What are some of the complications of diabetes?
8. What can I do to reduce my risk?
9. Describe a leading risk factor for Type 2 diabetes
10. What are some effective ways to lose weight?
11. Describe four ways to eat healthy.
12. What are some of the barriers to exercising?
13. How can we overcome barriers to exercising?
14. What is the main goal of diabetes treatment?
15. How can high glucose levels affect the body?
16. Describe the ABCs of diabetes.
17. Describe three health-care workers who might comprise a diabetes health-care team.
18. What does CDE stand for?
19. How can diabetes affect emotional health?
20. How can emotional health affect diabetes?
21. Describe some ways of alleviating stress.
22. What are some of the symptoms of “the blues” or depression?
23. Describe how you can deal with “the blues” or depression.

WHAT IS DIABETES? “SUGAR”

Diabetes or “sugar” is a chronic disease in which the pancreas produces little or no insulin. *Insulin* is a *hormone* that helps the body’s tissues absorb *glucose* [sugar] so it can be used as a source of energy. Diabetes can also develop if the body responds poorly to insulin. Glucose levels build up in the blood and urine, and this causes a number of symptoms including excessive urination, thirst, and hunger. Diabetes usually manifests itself as one of two major types: Type 1 and Type 2 diabetes.

Who is at Risk for Diabetes?

- Diabetes affects nearly six percent of the total U.S. population. It is also one of the most serious illnesses currently affecting the African-American population.
- Approximately 2.8 million (13 percent) African Americans have diabetes.
- On average, African Americans are twice as likely to have diabetes as white Americans of similar age.
- Death rates are two times higher in African-American populations than they are in white populations.
- One in every four African-American women, over 55 years of age, has diabetes.
- Diabetes is the fourth-leading cause of death in African-American women.
- African Americans with diabetes are more likely to develop diabetes complications (i.e., heart disease, stroke, blindness, kidney disease, amputations) and experience greater disability from the complications than white Americans with diabetes.
- Diabetes-associated renal failure is 2.5 times higher in African-American populations than it is in Hispanic populations.

Source: Adapted from the Morehouse School of Medicine, Center for Excellence on Health Disparities (Diabetes Core).

There are two types of diabetes, Type 1 and Type 2.



Types of Diabetes

Type 1 diabetes. The body does not make insulin and people need to take insulin every day.

Type 2 diabetes. The body does not produce or use insulin well. Either the body does not produce enough insulin or the cells ignore the insulin (insulin is necessary for the body to be able to use glucose for energy). The following problems can occur when glucose builds up in the blood instead of going into cells:

- The cells may be starved for energy.
- **High blood glucose** levels may harm your eyes, kidneys, nerves or heart.

People with this type of diabetes often need to take pills or insulin. Type 2 is the most common form of diabetes and accounts for 90 to 95 percent of all cases among African Americans.

Diabetes can be present for nine to 12 years before it is diagnosed.

Gestational diabetes



Gestational diabetes affects about four percent of all pregnant women in the United States. Once a woman has had gestational diabetes, she has an increased risk of developing gestational diabetes in future pregnancies. In addition, it has been estimated that approximately half of women with gestational diabetes develop Type 2 diabetes within 20 years of the pregnancy. Research indicates that African-American women have a higher rate of gestational diabetes.

Pre-diabetes occurs when a person's *blood glucose* levels are higher than normal but not high enough for a diagnosis of Type 2 diabetes. There are 54 million Americans who have pre-diabetes, in addition to the 20.8 million with diabetes.

Diagnosis of Diabetes

Diabetes can be present for nine to 12 years before it is diagnosed though it often goes undiagnosed. Early detection of diabetes symptoms and treatment can decrease the chance of developing the complications of diabetes. Untreated diabetes can lead to blindness, amputations, *kidney disease*, and premature death from heart disease and stroke.

“I was diagnosed after passing out on stage during one of my performances. I was totally shocked because I didn’t realize anything was wrong with me — I thought I was in perfect health.”

-Patti LaBelle, vocalist

Symptoms of Type 1 Diabetes

Symptoms of Type 1 diabetes often develop over a short period of time, the symptoms include:

- Increased thirst and urination
- Blurred vision
- Constant hunger
- Weight loss
- Extreme fatigue

A person can lapse into a life-threatening diabetic coma if Type 1 diabetes is not diagnosed and treated with insulin.

See your doctor right away if you have one or more of the above symptoms.

Type 1 diabetes develops most often in children and young adults, but the disorder can appear at any age.

Symptoms of Type 2 Diabetes

Symptoms of Type 2 diabetes often develop gradually, these symptoms may include:

- Fatigue or nausea
- Blurred vision
- Frequent urination
- Frequent infections
- Unusual thirst
- Slow healing of wounds or sores
- Weight loss
- No symptoms at all (in some cases)

See your doctor right away if you have one or more of these diabetes symptoms.

Type 2 diabetes usually develops in adults 40 years of age and older, but the disorder is becoming more common in young, obese children and adolescents.

Treatment of Diabetes

Treatment of Type 1 diabetes requires a strict regimen that typically includes:

- A carefully calculated diet
- Planned physical activity
- Home blood glucose testing several times a day
- Multiple daily insulin injections

Treatment of Type 2 diabetes typically includes:

- Diet control
- Exercise
- Home blood glucose testing
- In some cases, oral medication and/or insulin.

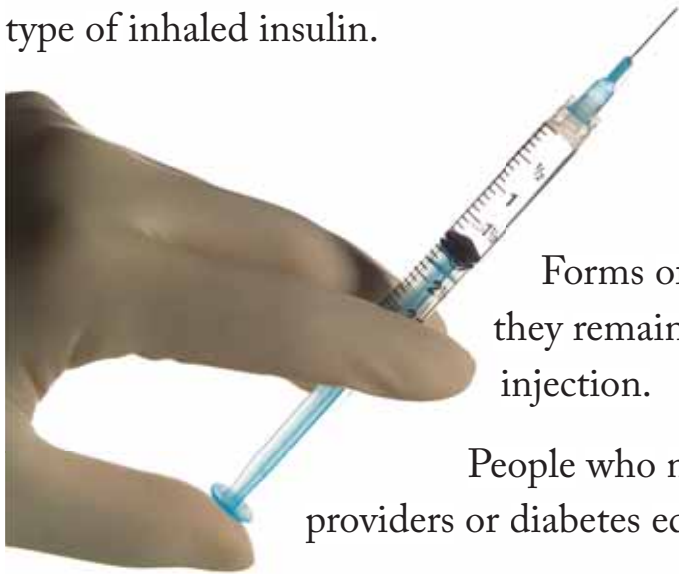
Approximately 40 percent of people with Type 2 diabetes require insulin injections.

“I do a tiny pinprick, usually on my fingertips, and test it with a special kit which tell me how high or low my blood sugar levels are....then using this as a guide I inject myself with the correct dose of insulin to level up my blood sugar...people always kind of cringe when I say that” -**Halle Berry, actress**

Treatment of Diabetes

Insulin

People with Type 1 diabetes cannot make their own insulin. In some cases, daily insulin *injections* are needed. Insulin does not come in pill form. Injections are generally needed one to four times per day. Some people use an insulin pump that is worn at all times and delivers a steady flow of insulin throughout the day. Other people may use a new type of inhaled insulin.



Forms of insulin differ in terms of how quickly they start to work and how long they remain active. Sometimes different types of insulin are mixed together in a single injection.

People who need insulin are taught to give themselves injections by their health-care providers or diabetes educators.

Source: New York Times Health Guide

<http://health.nytimes.com/health/guides/disease/diabetes/overview.html>

Treatment of Diabetes

Oral Medication



There are several types of medicines used to *lower blood glucose* in Type 2 diabetes. They fall into one of three groups:

- Medications that increase insulin production by the pancreas
- Medications that help increase the cell's sensitivity or responsiveness to insulin
- Medications that delay absorption of glucose from the gut
- There are some injectable medicines used to lower blood sugar

Most people with Type 2 diabetes will need more than one medication for good blood sugar control within the first three years of starting their medication. Different groups of medications may be combined or used with insulin.

Some people with Type 2 diabetes find they no longer need medication if they lose weight and increase activity. When their ideal weight is reached, their own insulin and a careful diet can control their blood glucose levels.

Source: New York Times Health Guide <http://health.nytimes.com/health/guides/disease/diabetes/overview.html>

“They told me I might lose my eyesight, or I could lose my legs...” **Halle Berry, actress**

Diabetes-Related Complications

African Americans experience higher rates of diabetes complications than white Americans. These include eye disease, kidney failure, and amputations. African Americans also experience greater disability from these complications.

Eye Disease

Eye disease or Diabetic *retinopathy* is a deterioration of the blood vessels in the eye that is caused by high blood glucose. It can lead to impaired vision and, eventually, to blindness. The incidence of diabetic retinopathy is 40 percent to 50 percent higher in African Americans than in white Americans.

Kidney Failure

African Americans with diabetes experience kidney failure also called end-stage renal disease (ESRD), about four times more often than diabetic white Americans.

Amputations

Diabetes is the most common cause of non-traumatic lower limb amputations. African Americans are 1.5 to 2.5 times more likely to suffer from lower limb amputations than white Americans.

Other Diabetes-Related Complications

Other complications include:

Heart Disease and *Stroke*

Diabetes carries an increased risk for heart attack, stroke, and complications related to poor circulation.

Nerve Damage (Diabetic Neuropathy)

One of the most common complications of diabetes is nerve damage (diabetic neuropathy). This involves damage to the nerves that run throughout the body, connecting the spinal cord to muscles, skin, blood vessels, and other organs.

Skin Complications

As many as one-third of people with diabetes will have a skin disorder caused or affected by diabetes at some time in their lives. These include bacterial infections, fungal infections, and itching.

Source: American Diabetic Association www.diabetes.org

Diabetes Prevention and *Risk Factors*

It is perfectly possible to delay or prevent Type 2 diabetes from developing. There is a lot that you can do to know your risks for pre-diabetes and to take action to prevent diabetes. Additionally, people with pre-diabetes can prevent the development of Type 2 diabetes by making changes in their diet and increasing their level of physical activity. Before people develop Type 2 diabetes, they almost always have “pre-diabetes” -- blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes. Certain health problems put you at higher risk for diabetes (and heart disease).

These include:

- Being overweight
- Unhealthy cholesterol
- Smoking
- High blood glucose
- ***High blood pressure***
- Physical inactivity



Managing these problems can help you prevent diabetes and heart disease.

Patient Education

As you can see, patient education is absolutely critical. People with diabetes can reduce their risk for complications if they are educated about their disease. They should learn and practice the skills necessary to better control their blood glucose, blood pressure and cholesterol levels, and receive regular checkups from their health-care team. Smokers should stop smoking, and overweight African Americans should aim to achieve a healthy weight by developing moderate exercise regimens under the guidance of a health-care provider. With the correct education, people can also assess their risk and prevent diabetes from ever developing. These and other issues will be covered during the course of this module.

“...if you do have diabetes, educate yourself and start managing your illness. Lose weight, exercise and watch your diet. Life is too wonderful to waste it on being sick.” **Patti LaBelle, vocalist**

What is Diabetes? Quick Test

1. What can happen if glucose levels build up in the blood and urine?
 - A. Excessive urination
 - B. Thirst
 - C. Hunger
 - D. All of the above
2. Which group is particularly affected by diabetes?
 - A. White Americans
 - B. African Americans
 - C. Hispanic Americans
3. What is gestational diabetes?
 - A. Diabetes that affects non pregnant women
 - B. Women without previously diagnosed diabetes exhibit high blood glucose levels during pregnancy
 - C. Diabetes that occurs at the third trimester of pregnancy.
4. Describe the symptoms of Type 2 diabetes?
 - A. Vomit, increased sweating, and skin redness
 - B. Weight gain and loss of appetite
 - C. Fatigue, frequent urination, and frequent infections
5. What is the treatment for Type 2 diabetes?
 - A. Home blood glucose testing
 - B. Diet Control
 - C. Exercise
 - D. Oral medication
 - E. All of the above
6. Describe complications that can develop as a result of diabetes.
 - A. Kidney failure
 - B. Seizures
 - C. Loss of balance
 - D. All of the above
7. Describe two diabetes risk factors.
 - A. High levels of stress and alcohol
 - B. low cholesterol and low blood pressure
 - C. High blood pressure and being overweight
8. How can education help in diabetes prevention and management?
 - A. People with education can reduce the risk of complications if they are educated
 - B. Education always guarantees the prevention of diabetes
 - C. Education has no affect on prevention of diabetes



MANAGING DIABETES - DIET AND EXERCISE

Nearly nine out of 10 people with newly diagnosed Type 2 diabetes are overweight. A disproportionate number of African-American women are overweight or obese. This puts them at a particular risk for diabetes.

If you are overweight, losing weight can help you better manage your diabetes. Being overweight or obese is also a leading risk factor for Type 2 diabetes. Losing weight can help prevent Type 2 diabetes from developing.

It is important to begin a weight-loss program with the help of a dietician and your health-care team. It is worth noting that losing even a relatively small amount of weight can make major towards reducing your risk for diabetes.

In any weight loss program, diet, nutrition and exercise go hand-in-hand.



“Diabetes is no joke. It’s a silent killer, which means that you have to keep after it every single day. For me, that means exercising daily for at least half an hour, and it means watching every single bite I take, in order to cut down on fats and sugar and keep my weight under control.”

Patti LaBelle, vocalist

Diet/ Nutrition

Diet and Nutrition are important for good diabetes control. Many African Americans' diets consist of traditional soul food that is typically high in fat and *cholesterol*. Too much fatty food, particularly when combined with a lack of exercise, can be dangerous. It is important to eat well-balanced meals in the correct amounts. This can keep the blood glucose level (non-diabetes) as close to normal as possible. Basic principles for healthy eating:

- Eat lots of vegetables and fruits. Eat vegetables such as spinach, carrots, broccoli or green beans.
- Choose whole grain foods over processed grain products. Try brown rice with your stir fry or whole wheat spaghetti with your favorite pasta sauce.
- Include dried beans (kidney or pinto beans) and lentils into your meals.
- Include fish in your meals two to three times a week.
- Choose lean meats like cuts of beef and pork that end in loin such as pork loin and sirloin. Remove the skin from chicken and turkey.
- Choose non-fat dairy such as skim milk, non-fat yogurt and non-fat cheese.
- Choose water and calorie-free “diet” drinks instead of regular soda, fruit punch, sweet tea and other sugar-sweetened drinks.
- Choose liquid oils for cooking instead of solid fats that can be high in saturated and trans fats. Remember that fats are high in calories. If you're trying to lose weight, watch your portion sizes of added fats.
- Cut back on high calorie snack foods and desserts like chips, cookies, cakes, and full-fat ice cream.
- Eating too much of even healthy foods can lead to weight gain. Watch your portion sizes.

Emotional Eating

Often the strongest cravings for particular foods occur when we are at our lowest point emotionally. This type of eating usually leads to eating too much food, especially high calorie, sweet, salty and fatty foods which we tend to crave when we have negative emotions. It is important to remember that over eating is damaging to our diabetes management, our weight management and our overall health. However, you can take steps to regain control of your eating habits.

Source: Diabetes Counseling Online <http://www.diabetescounselling.com.au/weightmatters/documents/DCOFactSheet-EmotionalEating.pdf>

Getting Control Over Emotional Eating

You can take steps to control cravings. To help stop emotional eating, try these things:

- **Learn to recognize *real* hunger.** Work out if your hunger is physical or emotional.
- **Know the trigger.** For a few days, write down what, how much and when you eat, how you are feeling when you eat and how hungry you are. Also record your blood glucose levels before eating and two hours later. Over time, you may notice patterns that help you recognize any negative eating patterns or triggers that you need to avoid. You may also see the impact of your eating on your diabetes.
- **Find other ways to seek comfort.** Instead of reaching for a chocolate bar, go for a walk, listen to music, take a bath, do some relaxation, or call a friend. If you think that stress relating to a particular problem is making you overeat, try talking to someone about it, and seek support or counseling.
- **Don't keep unhealthy foods around.**
- **Eat a healthy, balanced diet.**
- **Eat healthy snacks.**
- **Exercise regularly and get adequate rest.** This will make it is easier for you to manage your mood; your body can more effectively fight stress when you are fit and well rested.

Source: Diabetes Counseling Online <http://www.diabetescounselling.com.au/weightmatters/documents/DCOFactSheet-EmotionalEating.pdf>

Exercise/ Physical Activity

Exercise or physical activity is a strong protective factor against Type 2 diabetes. Researchers suspect that a lack of exercise is one factor contributing to the unusually high rates of diabetes in older African-American women. Physical activity includes anything that gets you moving, such as walking, dancing, or working in the yard. Through these types of physical activities, you can earn the benefits of being physically active without going to a gym, playing sports, or using fancy equipment.

Explore what it is that is keeping you from being active and look into ways to overcome the barriers.

“Diabetes doesn’t have to be such a bad thing if you control it.”

-Patti LaBelle, vocalist



Barriers and Solutions to Exercise

Barriers	Solutions
I don't have time to exercise for 30 minutes a day.	Do as much as you can. Every step counts. If you're just starting out, start with 10 minutes a day and add more little by little. Work up to 10 minutes at a time, three times a day.
I'm too tired after work.	Plan to do something active before work or during the day.
I don't have the right clothes.	Wear anything that's comfortable as long as you have shoes that fit well and socks that don't irritate your skin.
I'm too shy to exercise in a group.	Choose an activity you can do on your own, such as following along with an aerobics class on TV or going for a walk.
I don't want to have sore muscles.	Exercise shouldn't hurt if you go slowly at first. Choose something you can do without getting sore. Learn how to warm up and stretch before you do something active and how to cool down afterward.
I'm afraid I'll get low blood glucose.	If you're taking a medication that could cause low blood glucose, talk to your health care provider about ways to exercise safely.
Walking hurts my knees.	Try chair exercises or swimming.
It's too hot outside.	If it's too hot, too cold, or too humid, walk inside a school or a shopping center.
It's not safe to walk in my neighborhood.	Find an indoor activity, such as an exercise class at a community center.
I'm afraid I'll make my condition worse.	Get a checkup before planning your fitness routine. Learn what's safe for you to do.
I can't afford to join a fitness center or buy equipment.	Do something that doesn't require fancy equipment, such as walking or using cans of food for weights.
Exercise is boring.	Find something you enjoy doing. Try different activities on different days.

Source: American Diabetic Association www.diabetes.org

Body Image and Diabetes

Body image relates to how we think and feel about our bodies. Many factors affect our body image, one of them is the presence of an illness such as diabetes. In diabetes, weight concerns are often present. Obesity is a contributing factor for the development of Type 2 diabetes. In addition, managing diabetes is more difficult when you are overweight. Therefore weight and diabetes are very much intertwined.

Women with diabetes are often advised to maintain a healthy weight. Try to focus on your health and not just your body size. Are you able to meet your goals for eating and physical activity? Let this be the measure of your success, rather than how your body looks. If you find that you have stopped being active, or are over-eating certain foods, think about the reasons for this (Please see page 19 on Emotional Eating).

Source: womenshealthmatters.ca

<http://www.womenshealthmatters.ca/Centres/diabetes/body/index.html>

Diet and Exercise Quick Test

1. Name two important ways of managing diabetes
 - A. No carbohydrates and exercise
 - B. Diet and exercise
 - C. Consuming no sugar at all and reducing salt intake.
2. Name three ways you can eat healthily
 - A. Eat vegetables, lean meats and whole grains
 - B. Eating high calorie snack foods, big portions, and solid fat oils only
 - C. Eating processed foods, lots of vegetables, and no fish.
3. Name ways you can become more physically active.
 - A. Watching movies.
 - B. Walking
 - C. Working in the yard.
 - D. B&C
4. Describe some of the barriers to exercise.
 - A. Walking hurt my knees
 - B. I don't have time exercise for 30 minutes a day
 - C. I can't afford to join a fitness center or buy equipment
 - D. All of the above
5. Describe the solutions to the barriers you have described.
 - A. Do as much exercise as you can
 - B. If your knees hurt it is ok to quit exercising
 - C. Do something that doesn't require fancy equipment
 - D. A&C



MANAGING DIABETES - HEALTH CARE AND HEALTH SERVICES

When you have diabetes, it is very important to get good medical care.

Because high blood sugar (glucose) levels can cause many complications, it is very important to have a skilled doctor. Good health care helps reduce complications and enables you to live a full life.

Because diabetes is a complicated health condition, your doctor alone cannot be an expert in every area.



For this reason, your diabetes care team may include:

- Eye doctor
- Nurse
- Dietitian
- Foot doctor

Glucose Levels

Abnormally high levels of glucose in the blood, is a problem in all forms of diabetes. Therefore, the main goal of diabetes treatment is to bring glucose levels down to as close to normal as is safely possible.

The Association's Clinical Practice Recommendations state that glucose levels should be at 70-130 milligrams per deciliter (mg/dL) before meals. Your doctor may set different targets for you depending on your individual blood glucose reactions.

Most aspects of treatment plans will be aimed at helping you to reach your target glucose level. These include:

- Measuring glucose levels
- Taking diabetes pills or insulin shots
- Exercising
- Losing weight
- Establishing meal plans



High glucose levels can affect many parts of the body. They can lead to:

- Eye diseases
- Nerve diseases
- Kidney diseases
- Infections
- Blurred vision
- Fatigue
- Thirst
- *High blood pressure*
- High cholesterol
- High fat levels
- Heart disease

Know Your Diabetes ABCs

The ABCs of diabetes relate to the management of your *A1C*, *blood pressure* and cholesterol. A1C is your blood glucose or sugar level. Managing the ABCs of diabetes will help lower your chances of developing diabetes-related illnesses such as heart attack, stroke, and kidney disease.



A is for the A1C test

This test shows how well your blood glucose was controlled over the last three months and should be checked at least twice a year. The goal for most people is less than seven.

B is for blood pressure

The goal for most people is 130/80. High blood pressure makes your heart work too hard. It can cause heart attacks, strokes, and kidney disease.

C is for *cholesterol*

The LDL goal for most people is less than 100. Bad cholesterol, or *LDL*, can build up and clog your blood vessels. It can cause a heart attack or a stroke. Questions to ask your health-care team:

- What are my A1C (blood glucose), blood pressure, and cholesterol numbers?
- What should my ABC numbers be?

Your Health Care Team - Introduction

Your primary care doctor may already be part of a diabetes care team and work with many or all of the health professionals listed above. If you don't have a health-care team available, you can ask your primary care doctor if he or she will refer you to other members of the team. If so, find out if your insurance will pay this cost. Ask your health-care team to consult on your care when needed. Caring for diabetes is not an easy task but you do not have to face it alone. Working with a health-care team can make diabetes a lot easier to manage.

Health Care Team – Key Staff



The Primary Care Provider

The primary care provider is the doctor you see for general checkups and when you get sick. A doctor with special training in diseases such as diabetes is called an endocrinologist. If you do not see an endocrinologist, look for a primary doctor or family practice doctor who has cared for many people with diabetes. Your primary care doctor may also refer you to specialists or other team members. If you are looking for a new doctor, your visit should include some time for you to get to know each other. Make sure you feel comfortable talking about the details of your health and lifestyle with this doctor.

Nurse Educator

A nurse educator or diabetes nurse practitioner is a registered nurse (RN) with special training and background in caring for and teaching people with diabetes. Nurse educators often help you learn the day-to-day aspects of diabetes self-care.

Registered Dietitian

A registered dietitian (RD) is trained in nutrition and has passed a national exam. Make sure that you work with an RD who has training and experience with diabetes. If your doctor does not work with a dietitian, ask him to refer you to one. Your dietitian helps you figure out your food needs based on your desired weight, lifestyle, medication, and other health goals (such as lowering blood fat levels or blood pressure).

Eye Doctor

This doctor is another key member of your health-care team, because diabetes can affect the blood vessels in the eyes. When eye problems are caught early, effective treatments are available. The eye doctor will be either an ophthalmologist or an optometrist. The American Diabetes Association guidelines say you should see your eye doctor at least once a year. These checkups are the best way to detect diabetic eye disease. Make sure that your eye doctor is familiar with how to spot and treat diabetic eye disease.



Foot Doctor (Podiatrist)

This health professional is trained to treat feet and problems of the lower legs. Diabetes makes you prone to poor blood flow and nerve damage in the lower legs. You may get infections more often. Sores, even small ones, can quickly turn into serious problems. Any foot sore or callus needs to be checked by your primary care doctor or a podiatrist. Do not try to fix this yourself because an infection can occur. Do inspect your feet daily for signs of trouble.

Dentist

People with diabetes are at somewhat greater risk for gum disease. The excess blood sugar in your mouth makes it a good home for bacteria, which leads to infection. See your dentist every six months. Be sure to tell your dentist that you have diabetes.

Exercise Physiologist

Exercise plays a major role in your diabetes care no matter which type of diabetes you have. Exercise can help lower blood sugar, help your body better use insulin, and help control your weight. It can also improve your blood fat levels, reduce stress, and improve your overall fitness level. Even if you have diabetic complications, ask your doctor about safe exercises you can do. The best person to help you and your doctor plan your fitness program is a trained exercise physiologist (someone trained in the scientific basis of exercise). Always get your doctor's approval for any exercise program.



Social Worker/Psychologist/Psychiatrist/Marriage and Family Therapist

Mental health professionals can help with the personal and emotional side of living with diabetes. Social workers may be able to help you find funds to help with your medical or financial needs. Some social workers may be able to help you cope with other issues related to diabetes. Such issues may include problems within the family and workplace situations.

A psychologist might be able to help you during times of special stress. On a long-term basis, a psychologist also may help you work on more lasting problems.

A psychiatrist is a medical doctor who can prescribe medication to treat physical causes for emotional problems. Psychiatrists also provide counseling. Marriage and family therapists can help you with personal problems in family and marital relationships and problems on the job.

Other Specialists

As your health care needs change, you may need to add other members to your team. If you plan a pregnancy, for example, you will need to bring an obstetrician onto your team. If you have blood flow problems in your legs or feet, you may need the help of a vascular surgeon. Your primary care doctor can help find the specialist you need and work with you and that specialist to coordinate your care.



Certified Diabetes Educator (CDE)

A CDE is a certified diabetes educator. CDEs may be nurses, dietitians, doctors, pharmacists, podiatrists, counselors, or exercise physiologists. These professionals all work in some way to teach or care for people with diabetes. They may work in hospitals, clinics, diabetes centers, or private offices. When you see the letters CDE after a health-care professional's name, you know the person is specially trained in the care and treatment of people with diabetes.

Source: Adapted from the American Diabetic Association www.diabetes.org

Health Care and Health Services Quick Test

1. Who would make up a diabetes care team?
 - A. Only Primary Physician
 - B. Eye Doctor, Nurse, Dietitian, and Foot Doctor
 - C. Family and Friends
2. How can high glucose levels affect the body?
 - A. Low blood pressure
 - B. High blood pressure
 - C. Severe weight loss
 - D. Over production of insulin
3. People with diabetes are more likely to develop certain health problems.
Describe some of these health problems.
 - A. Thirst
 - B. Nerve disease
 - C. Infections
 - D. All of the above
4. What does the term Diabetes ABCs stand for?
 - A. AC1, Blood glucose, Cholesterol
 - B. AC1, Blood pressure, Cholesterol
 - C. AC1, Blood, Charts
5. What kind of professionals could a person with diabetes consult?
 - A. Eye doctor
 - B. Social worker
 - C. Primary care physician
 - D. All of the above



Diabetes is affected by stress and can in turn, create stress.

DIABETES AND EMOTIONAL HEALTH

Diabetes both affects and is affected by emotional health. For example, diabetes is affected by stress and in turn, it creates stress. Diabetes is also closely linked with “the blues” or depression. People with diabetes are at higher risk of getting the blues than people without diabetes.

How Stress Affects Diabetes

In people with diabetes, stress can alter blood glucose levels:

People under stress may not take good care of themselves. They may drink more alcohol or exercise less. They may forget, or not have time to check their glucose levels or plan good meals. Stress hormones may also alter blood glucose levels directly. In people with Type 2 diabetes, mental stress often raises blood glucose levels.



Find out whether stress affects your glucose control:

- Before checking your glucose levels, write down a number rating your stress level on a scale of one to 10.
- Then write down your glucose level next to it.
- After a week or two, look for a pattern. Drawing a graph may help you see trends better. Do high stress levels often occur with high glucose levels, and low stress levels with low glucose levels? If so, stress may affect your glucose control.

Source: Adapted from the American Diabetic Association www.diabetes.org

'I needed to pay attention to everything that could affect my blood sugar level, including diet exercise and stress.'

Halle Berry, actress

What Causes Stress?

Some common causes of stress include:

- Chronic health conditions
- Individual/personal issues (i.e., cognitions, identity, self-perception)
- Interpersonal and intimate relationships (i.e., commitment, intimacy, trust, communication, infidelity issues)
- Family relationships and daily demands
- Unresolved pain and trauma (i.e., sexual, emotional, and physical abuse)
- Negative life events (i.e., the death of a loved one, victim of crime etc.)
- Confronting historically negative stereotypes and images of African-American women
- Sociopolitical stressors; including racism and sexism
- Job/employment issues
- Economic and financial concerns
- Community (i.e., environmental conditions)
- Balancing multiple expectations of others



Coping with Diabetes Stress

Controlling emotions by using coping methods. It is important to recognize that you have some control over your reaction to stress. People who use coping methods such as problem solving (changing ones situation to get rid of the stress) and positive thinking (talking oneself into accepting the problem as okay or not so bad) tend to have less blood glucose elevation in response to mental stress.

Learn relaxation techniques. These include breathing exercises, progressive relaxation therapy, exercise, and replacing bad thoughts with good ones.

Support groups. Making friends in a *support group* can make diabetes easier to manage since meeting other people in the same situation helps you feel less alone. You can also share tips for coping with problems.

Hobbies. Sometimes adding positive things to your life can help.

Dealing directly with diabetes-related stress. By looking at the aspects of diabetes which cause the most stress for you, you can deal with these issues directly.

Meditation. Meditation is a very useful method in dealing with stress.

Prayer. Prayer is another useful method in dealing with stress.

Assertiveness Training. Assertiveness training can also help to reduce stress.

Talking with a therapist. When stress becomes very severe, a therapist help you learn new ways of coping or changing your behavior. Ask a member of your diabetes team for a referral.

The Diabetes Blues

People with diabetes have a greater risk of the blues than people without diabetes. This may be because of the stress of daily diabetes management. Issues may include:



- Feeling Alone.
- Diabetes complications- If you face diabetes complications you may feel like you are losing control of your illness.
- Managing Blood sugar levels- If you have difficulty managing blood sugar levels you may feel like you're losing control of your illness.

The Diabetes Blues – A Vicious Cycle

Diabetes Blues or depression can cause a vicious cycle and can prevent good diabetes self-care.


- **Blood Sugar Testing.** If you are depressed and have no energy, it is likely that you will find it difficult to do regular blood sugar testing.
- **Diet Management.** Depression similarly makes it difficult to keep up with a good diet. For example, you may not feel like eating. This will affect your blood sugar levels.

Do You Have “the Blues?”



If you have three or more of the following symptoms, or if you have just one or two but have been feeling bad for two weeks or more, please get help.

- Feeling sad generally
- Change in sleep patterns
- Early to rise
- Change in appetite

- 
- Trouble concentrating
 - Loss of energy - You feel tired all the time.
 - Nervousness
 - Guilt
 - Morning sadness
 - Suicidal thoughts

Coping with Diabetes Blues

If you are having symptoms of the blues or depression, it's important to not keep them to yourself. Discuss your feelings with your doctor. If physical causes can be ruled out, your doctor is likely to refer you to a specialist, (i.e., a psychiatrist, psychologist, psychiatric nurse, licensed clinical social worker, or professional counselor.) Generally, there are two types of treatment—psychotherapy and antidepressant medication.

Psychotherapy can help you look at the problems which cause the blues or depression. It can also help you find ways to manage the depression. Therapy can be short term or long term. Make sure that you find a therapist who you are at comfortable with.

Antidepressant medication

If you consider trying an antidepressant drug, talk to the psychiatrist and your primary care provider about side effects and how it might affect your blood sugar levels. Many people achieve good results with combination of medication and psychotherapy.

Diabetes and Emotional Health Quick Test

1. What kind of emotional health issues are linked with diabetes?
 - A. Stress
 - B. Diabetes blues
 - C. Mood swings
 - D. A&B
2. How can stress affect diabetes?
 - A. Stress does not affect diabetes
 - B. Increases insulin levels
 - C. Alter blood glucose levels
3. Describe two ways of managing stress.
 - A. Learn relaxation techniques and support groups
 - B. Not expressing yourself and being depressed
 - C. Avoid all problems and blame others
4. Describe symptoms of the blues or depression.
 - A. Anger
 - B. Feeling sad
 - C. Guilt
 - D. B&C
5. What kind of help is available for the blues or depression?
 - A. Exercise techniques
 - B. Psychotherapy
 - C. Spiritual and herbal therapy
 - D. All of the above



Post Session Questionnaire

1. Who is at high risk for diabetes?
 - A. Hispanic population
 - B. African American population
 - C. White Americans
2. Define diabetes.
 - A. Disease in which insulin is over produced
 - B. Chronic disease in which pancreas produces little or no insulin.
 - C. Body producing too many sugars
3. What are the characteristics of Type 1 diabetes?
 - A. The body rejects insulin
 - B. The body does not make insulin and people need to take insulin everyday
 - C. There is an over production of insulin
4. What are the characteristics of Type 2 diabetes?
 - A. When the body does not produce enough insulin
 - B. The cells ignore insulin
 - C. Over production of insulin
 - D. A&B
5. What type of diabetes is most common among African Americans?
 - A. Type 1
 - B. Type 2
 - C. Type 3
6. Describe symptoms of diabetes.
 - A. Fatigue
 - B. Extreme thirst
 - C. frequent urination
 - D. All of the above
7. Describe the treatments for diabetes
 - A. Diet control
 - B. Exercise
 - C. No sugar intake
 - D. All of the above.
 - E. A&B
8. What are some of the complications of diabetes?
 - A. Nerve damage
 - B. Amputations
 - C. Brain damage
 - D. A&B

9. What can I do to reduce my risk?

- A. Physical inactivity
- B. Achieve healthy weight
- C. Continue smoking

10. Describe a leading risk factor for Type 2 diabetes

- A. Smoking
- B. High stress levels
- C. Being overweight

11. What does weight loss require?

- A. Dieting
- B. Nutrition
- C. Exercise
- D. All of the above

12. Describe four ways you can incorporate healthy eating.

- A. Eat vegetables, lean meats, fish and whole grains
- B. Eating high calorie snack foods, big portions, Trans fats, and solid fat oils only
- C. Eating processed foods, low protein diet, lots of vegetables, and no fish

13. What are some of the barriers to exercising?

- A. Walking hurt my knees
- B. I don't have time exercise for 30 minutes a day
- C. I can't afford to join a fitness center or buy equipment
- D. All of the above

14. How can we overcome barriers to exercising?

- A. Do as much exercise as you can
- B. If your knees hurt it is ok to quit exercising
- C. Do something that doesn't require fancy equipment
- D. A&C

15. What is the main goal of diabetes treatment?

- A. Bringing glucose levels to as close to normal as is safely possible
- B. Increasing glucose level to as highest as possible
- C. Having no sugar in the diet at all.

16. How can high glucose levels affect the body?

- A. Skin dryness
- B. High blood pressure
- C. Weight loss

17. Describe the ABCs of diabetes

- A. It relates to the management of AC1, Blood pressure, Cholesterol
- B. It relates to the management of AC1, Blood glucose, Cholesterol
- C. It promotes knowing the most information about diabetes

18. Describe three health-care workers who might comprise of a diabetes health care team.

- A. Foot Doctor, Dentist, Social worker.
- B. Only Primary Care Physician
- C. Administrative staff, pharmacist and medical assistants.

19. What does CDE stand for?

- A. Certified Diabetes Educator
- B. Certified Diabetes Exercises
- C. Certified Diabetes Effects

20. How can diabetes affect emotional health?

- A. Diabetes have no affect on emotional health
- B. People with Diabetes are more prone to mood swings
- C. People with Diabetes are at higher risk of depression or stress.

21. How can emotional health affect diabetes?

- A. It can alter glucose levels
- B. Emotions have a low effect on diabetes
- C. Glucose and emotions are not related.

22. Describe some ways of alleviating stress.

- A. Learn relaxation techniques and support groups
- B. Not expressing yourself and being depressed
- C. Avoid all problems and blame others

23. What are some of the symptoms of the blues or depression?

- A. Anger
- B. Feeling sad
- C. Guilt
- D. B& C

24. Describe how to deal with the blues or depression.

- A. Exercise techniques
- B. Psychotherapy
- C. Antidepressant medication
- D. B&C

APPENDIX ONE - DIABETES GLOSSARY

A1C—A test that sums up how much glucose has been sticking to part of the hemoglobin during the past 3–4 months. Hemoglobin is a substance in the red blood cells that supplies oxygen to the cells of the body.


BLOOD GLUCOSE—The main sugar that the body makes from the food we eat. Glucose is carried through the bloodstream to provide energy to all of the body’s living cells. The cells cannot use glucose without the help of insulin.

BLOOD PRESSURE—The force of the blood against the artery walls. Two levels of blood pressure are measured: the highest, or systolic, occurs when the heart pumps blood into the blood vessels, and the lowest, or diastolic, occurs when the heart rests.

BLOOD SUGAR—See blood glucose.

CARBOHYDRATE—One of three main groups of foods in the diet that provide calories and energy. (Protein and fat are the others.) Carbohydrates are mainly sugars (simple carbohydrates) and starches (complex carbohydrates, found in bread, pasta, beans) that the body breaks down into glucose.

CHOLESTEROL—A substance similar to fat that is found in the blood, muscles, liver, brain, and other body tissues. The body produces and needs some cholesterol. However, too much cholesterol can make fats stick to the walls of the arteries and cause a disease that decreases or stops circulation.



DIABETES—The short name for the disease called diabetes mellitus. Diabetes results when the body cannot use blood glucose as energy because of having too little insulin or being unable to use insulin. See also Type 1 diabetes, Type 2 diabetes, and gestational diabetes.

DIABETES PILLS—Pills or capsules that are taken by mouth to help lower the blood glucose level. These pills may work for people whose bodies are still making insulin.


DIABETIC EYE DISEASE—A disease of the small blood vessels of the retina of the eye in people with diabetes. In this disease, the vessels swell and leak liquid into the retina, blurring the vision and sometimes leading to blindness.

DIABETIC KIDNEY DISEASE—Damage to the cells or blood vessels of the kidney.

GESTATIONAL DIABETES—A type of diabetes that can occur in pregnant women who have not been known to have diabetes before. Although gestational diabetes usually subsides after pregnancy, many women who've had gestational diabetes develop Type 2 diabetes later in life.

GLUCOSE—A sugar in our blood and a source of energy for our bodies.

HDL (OR HIGH-DENSITY LIPOPROTEIN)—A combined protein and fatlike substance. Low in cholesterol, it usually passes freely through the arteries. Sometimes called “good cholesterol.”



HIGH BLOOD GLUCOSE—A condition that occurs in people with diabetes when their blood glucose levels are too high. Symptoms include having to urinate often, being very thirsty, and losing weight.

HIGH BLOOD PRESSURE—A condition where the blood circulates through the arteries with too much force. High blood pressure tires the heart, harms the arteries, and increases the risk of heart attack, stroke, and kidney problems.

HORMONE—A chemical that special cells in the body release to help other cells work. For example, insulin is a hormone made in the pancreas to help the body use glucose as energy.

INJECT—To force a liquid into the body with a needle and syringe.

INSULIN—A hormone that helps the body use blood glucose for energy. The beta cells of the pancreas make insulin. When people with diabetes can't make enough insulin, they may have to inject it from another source.

KIDNEYS—Twin organs found in the lower part of the back. The kidneys purify the blood of all waste and harmful material. They also control the level of some helpful chemical substances in the blood.

LOW BLOOD GLUCOSE—A condition that occurs in people with diabetes when their blood glucose levels are too low. Symptoms include feeling anxious or confused, feeling numb in the arms and hands, and shaking or feeling dizzy.

LDL (OR LOW-DENSITY LIPOPROTEIN)—A combined protein and fatlike substance. Rich in cholesterol, it tends to stick to the walls in the arteries. Sometimes called “bad cholesterol.”

MEAL PLAN—A guide to help people get the proper amount of calories, carbohydrates, proteins, and fats in their diet. See also food exchanges.


PANCREAS—An organ in the body that makes insulin so that the body can use glucose for energy. The pancreas also makes enzymes that help the body digest food.

RETINOPATHY—See diabetic eye disease.

RISK FACTORS—Traits that make it more likely that a person will get an illness. For example, a risk factor for getting Type 2 diabetes is having a family history of diabetes.

SELF-MONITORING BLOOD GLUCOSE—A way for people with diabetes to find out how much glucose is in their blood. A drop of blood from the fingertip is placed on a special coated strip of paper that “reads” (often through an electronic meter) the amount of glucose in the blood.

STROKE—Damage to a part of the brain that happens when the blood vessels supplying that part are blocked, such as when the blood vessels are clogged with fats (a condition sometimes called hardening of the arteries).



SUPPORT GROUP—A group of people who share a similar problem or concern. The people in the group help one another by sharing experiences, knowledge, and information.

TYPE 1 DIABETES—A condition in which the pancreas makes so little insulin that the body can't use blood glucose as energy. Type 1 diabetes most often occurs in people younger than age 30 and must be controlled with daily insulin injections.

TYPE 2 DIABETES—A condition in which the body either makes too little insulin or can't use the insulin it makes to use blood glucose as energy. Type 2 diabetes most often occurs in people older than age 40 and can often be controlled through meal plans and physical activity plans. Some people with type 2 diabetes have to take diabetes pills or insulin.

Source: Adapted from The Centers for Disease Control and Prevention (Diabetes Public Health Resource)
<http://www.cdc.gov/diabetes/pubs/tcyd/appendix.htm>

APPENDIX TWO - WEBSITES

About.com

<http://diabetes.about.com/library/weekly/aa060101a.htm>

American Association of Diabetes Educators

www.aadenet.org

American Diabetes Association (ADA)

www.diabetes.org

California Black Women's Health Project

<http://www.cabwhp.org>

Diabetes Public Health Resource

<http://www.cdc.gov/diabetes/pubs/glance.htm>

Joslin Diabetes Center

<http://www.joslin.org/news/obesity02.html>



National Black Women's Health Project, Inc.

<http://www.nbwhp.org>

National Diabetes Education Program (NDEP)

<http://ndep.nih.gov>

National Diabetes Information Clearinghouse

www.nddk.nih.gov

National Medical Association

www.nmanet.org

Sisters Together: Move More, Eat Better

<http://www.niddk.nih.gov/health/nutrit/sisters/sisters.htm>

The Black Women's Health Imperative

<http://www.blackwomenshealth.org/site/c.eeJIIWOCIrH/b.3082485/>

Women's Health Matters: Diabetes Health Centre

<http://www.womenshealthmatters.ca/centres/diabetes/team>

APPENDIX THREE - BOOKS

American Diabetes Association (1998). *The Complete Quick & Hearty Diabetic Cookbook: More Than 250 Fast, Low-Fat Recipes With Old-Fashioned Good Taste.*

Chitwood, M. (1996). *Southern-Style Diabetic Cooking.*

Dawson, L.Y. (1995). *Managing Diabetes on a Budget.*

Guffey, L. (1997). *How to Cook for People With Diabetes.*

Guyton, W. (Ed) (1995). *The Fitness Book for People With Diabetes: A Project of the American Diabetes Association Council on Exercise.*

Spicer, K (1996). *World-Class Diabetic Cooking: Great-Tasting Recipes from Around the World.*

Stanley, K (1997). *Quick & Easy Diabetic Recipes for One: Tips and Recipes for Healthy Eating on Your Own.*

Warshaw, H. (1996). *Diabetes Meal Planning Made Easy: How to Put the Food Pyramid to Work for Your Busy Lifestyle.*

Webb, R. (1996). *Diabetic Meals in 30 Minutes-Or Less!*

APPENDIX FOUR - REFERENCES/ CURRICULUM TOOLKIT CREDITS

American Diabetes Association

www.diabetes.org

BlackHealthCare.com

www.blackhealthcare.com

Diabetes Counseling Online

<http://www.diabetescounselling.com.au/>

Diabetes Monitor

www.diabetesmonitor.com/b44.htm

DLife

[www.dlife.com/dLife/do/ShowContent/type2 information/causes and risk factors/african americans and diabetes.html](http://www.dlife.com/dLife/do/ShowContent/type2_information/causes_and_risk_factors/african_americans_and_diabetes.html)

Morehouse School of Medicine Center of Excellence on Health Disparities Diabetes Facts Sheet

http://web.msm.edu/EXPORT/diabetes_facts.htm



Morehouse School of Medicine Prevention Research Center Newsletter 2003

<http://web.msm.edu/prc/PRC/PDF's/Newsletters/Volume2-Issue3.pdf>

New York Times Health Guide

<http://health.nytimes.com/health/guides/disease/diabetes/overview.html>

Womenshealthmatters.ca

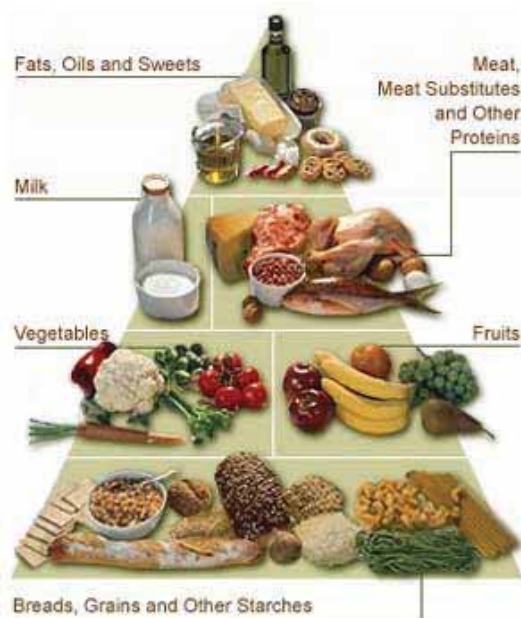
<http://www.womenshealthmatters.ca/>

Virginia Department of Health Web Site

<http://www.vahealth.org/cdpc/diabetes/abc.htm>


APPENDIX FIVE - AMERICAN DIABETES ASSOCIATION DIABETES FOOD PYRAMID

Using the Diabetes Food Pyramid



The Diabetes Food Pyramid divides food into six groups. These groups or sections on the pyramid vary in size. The largest group - grains, beans, and starchy vegetables - is on the bottom. This means that you should eat more servings of grains, beans, and starchy vegetables than of any of the other foods. The smallest group - fats, sweets, and alcohol - is at the top of the pyramid. This tells you to eat very few servings from these food groups.

The Diabetes Pyramid gives a range of servings. If you follow the minimum number of servings in each group, you would eat about 1600 calories and if you eat at the upper end of the range, it would be about 2800 calories. Most women would eat at the lower end of the range and many men would eat in the middle to high end of the range if they are very active. The exact number of servings you need depends on your diabetes goals, calorie and nutrition needs, your lifestyle, and the foods you like to eat. Divide the number of servings you should eat among the meals and snacks you eat each day.



The Diabetes Food Pyramid is a little different than the USDA Food Guide Pyramid because it groups foods based on their carbohydrate and protein content instead of their classification as a food. To have about the same carbohydrate content in each serving, the portion sizes are a little different too. For example: you will find potatoes and other starchy vegetables in the grains, beans and starchy vegetables group instead of the vegetables group. Cheese is in the meat group instead of the milk group. A serving of pasta or rice is 1/3 cup in the Diabetes Food Pyramid and 1/2 cup in the USDA pyramid. Fruit juice is 1/2 cup in the Diabetes Food Pyramid and 3/4 cup in the USDA pyramid. This difference is to make the carbohydrate about the same in all the servings listed.

Following is a description of each group and the recommended range of servings of each group.

Grains and Starches

At the base of the pyramid are bread, cereal, rice, and pasta. These foods contain mostly carbohydrates. The foods in this group are made mostly of grains, such as wheat, rye, and oats. Starchy vegetables like potatoes, peas, and corn also belong to this group, along with dry beans such as black-eyed peas and pinto beans. Starchy vegetables and beans are in this group because they have about as much carbohydrate in one serving as a slice of bread. So, you should count them as carbohydrates for your meal plan.

Choose 6-11 servings per day. Remember, not many people would eat the maximum number of servings. Most people are toward the lower end of the range.

Serving sizes are:

1 slice of bread

¼ of a bagel (1 ounce)

½ an English muffin or pita bread

1 six-inch tortilla

¾ cup dry cereal

½ cup cooked cereal

½ cup potato, yam, peas, corn, or cooked beans

1 cup winter squash

1/3 cup rice or pasta

Vegetables

All vegetables are naturally low in fat and good choices to include often in your meals or have them as a low-calorie snack. Vegetables are full of vitamins, minerals and fiber. This group includes spinach, chicory, sorrel, Swiss chard, broccoli, cabbage, bok choy, Brussels sprouts, cauliflower, and kale, carrots, tomatoes, cucumbers, and lettuce. Starchy vegetables such as potatoes, corn, peas, and lima beans are counted in the starch and grain group for diabetes meal planning.

Choose at least 3-5 servings per day.

A serving is:

1 cup raw

½ cup cooked



Fruit

The next layer of the pyramid is fruits, which also contain carbohydrates. They have plenty of vitamins, minerals, and fiber. This group includes blackberries, cantaloupe, strawberries, oranges, apples, bananas, peaches, pears, apricots, and grapes.

Choose 2-4 servings per day

A serving is:

½ cup canned fruit

1 small fresh fruit

2 tbs. dried fruit

1 cup melon or raspberries

1 ¼ cup whole strawberries

Milk

Milk products contain a lot of protein and calcium as well as many other vitamins. Choose non-fat or low-fat dairy products for the great taste and nutrition without the saturated fat.

Choose 2-3 servings per day

A serving is:

1 cup non-fat or low-fat milk

1 cup yogurt

Meat and Meat Substitutes

The meat group includes beef, chicken, turkey, fish, eggs, tofu, dried beans, cheese, cottage cheese and peanut butter. Meat and meat substitutes are great sources of protein and many vitamins and minerals.

Choose from lean meats, poultry and fish and cut all the visible fat off meat. Keep your portion sizes small. Three ounces is about the size of a deck of cards. You only need 4-6 ounces for the whole day.

Choose 4-6 oz. per day divided between meals

Equal to 1 oz. of meat:

¼ cup cottage cheese

1 egg

1 Tbsp. peanut butter

½ cup tofu

Fats, Sweets, and Alcohol

Things like potato chips, candy, cookies, cakes, crackers, and fried foods contain a lot of fat or sugar. They aren't as nutritious as vegetables or grains. Keep your servings small and save them for a special treat!

Serving sizes include:

½ cup ice cream

1 small cupcake or muffin

2 small cookies

Source: American Diabetes Association <http://www.diabetes.org/nutrition-and-recipes/nutrition/foodpyramid.jsp>

