
What is diabetes?

- Chronic disorder in which a person's body cannot properly control the amount of glucose (sugar) in their blood
- Occurs either when the body does not produce enough insulin or use insulin properly
 - Insulin is a hormone produced in the pancreas that controls the uptake of glucose (sugar) and the utilization of glucose as an energy source
 - Glucose is stored in the liver, muscles and fat cells
- 346,000 people in Washington State have diagnosed diabetes
- 155,000 people are estimated to have undiagnosed diabetes
- Diabetes accounts for 8% of all legal blindness and is the leading cause of end-stage renal disease (kidney failure) in the U.S.
- People with diabetes are twice as likely as non-diabetic patients to experience development of cardiovascular (heart) disease
 - 2 out of 3 people with diabetes will die from heart disease or stroke

Two most common types:

Type 1 (aka insulin dependent, juvenile)

- Type 1 accounts for 5-10% of all types of diabetes
- Often occurs in people under 30 y/o, with peak onset between 11-13 y/o
- (Autoimmune) Absent/minimal insulin production
- Requires insulin from an outside source in order to live
- Without insulin, can develop diabetic ketoacidosis (life-threatening condition)
- **Symptoms:** Polyuria (frequent urination), polydipsia (excessive thirst), and polyphagia (excessive hunger), fatigue, weight loss

Type 2 (aka non-insulin dependent, adult-onset)

- Type II is the most prevalent, accounting for over 90% of cases
- Usually occurs in people 35 y/o and older, and 80-90% are overweight at time of dx
- Prevalence of type II is greater in some ethnic populations: African Americans, Asian Americans, Hispanic Americans
- **Symptoms:** Frequently none, fatigue, recurrent infxns, recurrent yeast infxns, prolonged wound healing, blurred vision

Risk Factors

- Obesity
- Body fat distribution (apple vs. pear)
- Family hx of DM/genetics
- Physical inactivity
- Race/ethnicity
- Age > 45 y/o
- High cholesterol
- High BP

Possible Complications

Diabetes can lead to serious problems with your eyes, kidneys, nerves, heart, blood vessels, and other areas of the body.

General complications include:

- Cataracts
- Damage to blood vessels that supply the legs and feet (peripheral vascular disease)
- Diabetic retinopathy (leading cause of blindness in the U.S.)
- Foot sores or ulcers, which can result in amputation

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- Glaucoma - pressure builds up in the eye. Over time, this pressure damages your eye's main nerve—the optic nerve. The damage first causes you to lose sight from the sides of your eyes. Treating glaucoma is usually simple. Your eye care professional will give you special drops to use every day to lower the pressure in your eyes.
 - High blood pressure
 - High cholesterol
 - Kidney disease and kidney failure (diabetic nephropathy)
 - Macular edema
 - Nerve damage, which causes pain and numbness in the feet, as well as a number of other problems with the stomach and intestines, heart, and other body organs (diabetic neuropathy)
 - Stroke
 - Worsening of eyesight or even blindness

Screening

Diabetes screening is recommended for:

- Overweight children who have other risk factors for diabetes, starting at age 10 and repeating every 2 years
- Overweight adults (BMI greater than 25) who have other risk factors
- Adults over 45 every 3 years

Prevention (CLINICAL)

- Maintain a healthy body weight and active lifestyle
 - Aerobic exercise has significant and particular benefits for people with type I diabetes. It increases sensitivity to insulin, lowers blood pressure, improves cholesterol levels, and decreases body fat.
 - Good, protective footwear is essential to help avoid injuries and wounds to the feet.
 - Avoid resistance or high impact exercises. They can strain weakened blood vessels in the eyes of patients with retinopathy. High-impact exercise may also injure blood vessels in the feet.
- Diet/Meal planning
 - *Carbohydrates should provide 45 - 65% of total daily calories.* Type and amount of carbohydrate are both important.
 - Best choices are vegetables, fruits, beans, and whole grains.
 - People with diabetes should monitor their carbohydrate intake either through carbohydrate counting or meal planning exchange lists
 - *Fats should provide 25 - 35% of daily calories.*
 - Monounsaturated (olive, peanut, and canola oils; avocados; and nuts)
 - Omega-3 polyunsaturated (fish, flaxseed oil, and walnuts) fats are the best types
 - Limit saturated fat (red meat, butter) to less than 7% of daily calories
 - Choose nonfat or low-fat dairy instead of whole milk products
 - Limit trans-fats (hydrogenated fat found in snack foods, fried foods, and commercially baked goods) to less than 1% of total calories
 - *Protein should provide 12 - 20% of daily calories, although this may vary depending on individual health requirements*
 - People with kidney disease should limit protein intake to less than 10% of calories. Fish, soy, and poultry are better protein choices than red meat
- Smoking cessation
 - Nicotine causes blood vessels to narrow and harden, which reduces blood flow all over the body
 - People with diabetes are already at a greater risk of blood-related complications, smoking makes those risks more dangerous
 - Expensive, unhealthy habit

Foot care

People with diabetes are more likely to have foot problems. DM can damage nerves, which means they may not feel an injury until a large ulcer or infxn develops. Preventive foot care can significantly reduce the risk of ulcers and amputation.

To prevent diabetes-related foot problems, you should:

- Check and care for your feet EVERY DAY, especially if you have nerve/blood vessel damage or current foot problems.
- Inspect their feet for changes in color or texture, odor, and firm or hardened areas, which may indicate infection and potential ulcers.
- Apply moisturizers, but NOT between the toes.
- Trim toenails short and file the edges to avoid cutting adjacent toes.
- Well-fitting footwear is very important. People should be sure the shoe is wide enough. Wear socks, particularly with extra padding
- Patients should avoid tight stockings or any clothing that constricts the legs and feet.
- Get a foot exam by your health care provider at least twice a year and learn whether you have nerve damage

Treatment Goals (CLINICAL)

- Goals of diabetes management are to lower high blood sugar levels, reduce symptoms, promote well-being, prevent acute complications, and prevent/delay the onset and progression of long-term complications
- The primary tx for type II DM is exercise, diet and tight glycemic control

When should you go to a clinic/hospital? (CLINICAL)

Call 911 immediately if you have:

- Chest pain or pressure
- Fainting or unconsciousness
- Seizure
- Shortness of breath

These symptoms can quickly get worse and become emergency conditions (such as convulsions or hypoglycemic coma).

Call your doctor also if you have:

- Numbness, tingling, pain in your feet or legs
- Problems with your eyesight
- Sores or infections on your feet
- Symptoms of high blood sugar (being very thirsty, having blurry vision, having dry skin, feeling weak or tired, needing to urinate a lot)
- Symptoms of low blood sugar (weak or tired, trembling, sweating, feeling irritable, unclear thinking, fast heartbeat, double or blurry vision, feeling uneasy)

Resources

Pioneer Square Clinic:

Low income ppl can see a podiatrist @ the clinic, but would need a referral (which they can get at a walk-in appointment @ the clinic). Ppl would need to arrive BEFORE 7 (or 8) when it opens to get one of their few walk-in appts, offered each day.

(206) 744-1500

Monday, 7:00 a.m. to 5:00 p.m.

Tuesday, 7:00 a.m. to 5:00 p.m.

Wednesday, 8:00 a.m. to 5:00 p.m.

Thursday, 7:00 a.m. to 5:00 p.m.

Friday, 7:00 a.m. to 5:00 p.m.

Pioneer Square Building

Box 359945

206 Third Ave. S.

Seattle, WA 98104

[<http://uwmedicine.washington.edu/patient-care/our-services/find-a-clinic/pages/clinic.aspx?clinicid=601>]

They also have a sister clinic 3rd Ave Center @ YWCA:

It is located at 2028 Third Avenue in downtown Seattle, next to Angeline's day center at the YWCA Opportunity Place. Operated by Harborview Medical Center's Pioneer Square Clinic, the Third Avenue Center provides walk-in specialty health services, management of acute and chronic illness, well adult exams, women's health care, family planning, HIV screening, podiatry, referral to a primary care medical home, and referrals to dental services. On-site psychiatrist and mental health professionals offer mental health counseling to current clients. Interpreter services are available.

Eligibility and referral: Serves homeless people and individuals without health insurance who are unable to pay for services.

Hours are 7:00 am to 5:30 p.m. Mondays through Fridays.

Walk-in only.

Sign-up for same-day appointments begins at 7:15 a.m. for morning appointments, and at 1:00 p.m. for afternoon appointments. Sliding scale fees are available. Medicaid (medical coupons), Medicare, and private insurance are accepted. For more information, call 206-521-1231. Ppl should bring their ID, and any insurance information they have. There might be a small bill if they have insurance or income.

Questions?

Diabetes Myths – True or False

(#1-6 are from: <http://www.diabetes.org/diabetes-basics/diabetes-myths/>)

1. **Diabetes is not that serious of a disease.**
 - a. False. Diabetes causes more deaths a year than breast cancer and AIDS combined. Two out of three people with diabetes die from heart disease or stroke.
2. **If you are overweight or obese, you will eventually develop type 2 diabetes.**
 - a. False. Being overweight is a risk factor for developing this disease, but other risk factors such as family history, ethnicity and age also play a role. Unfortunately, too many people disregard the other risk factors for diabetes and think that weight is the only risk factor for type 2 diabetes. Most overweight people never develop type 2 diabetes, and many people with type 2 diabetes are at a normal weight or only moderately overweight.
3. **Eating too much sugar causes diabetes.**
 - a. False. Type 1 diabetes is caused by genetics and unknown factors that trigger the onset of the disease; type 2 diabetes is caused by genetics and lifestyle factors. Being overweight does increase your risk for developing type 2 diabetes, and a diet high in calories, whether from sugar or from fat, can contribute to weight gain. If you have a history of diabetes in your family, eating a healthy meal plan and regular exercise are recommended to manage your weight.
4. **People with diabetes can eat sweets or chocolate.**
 - a. True. *If* eaten as part of a healthy meal plan, or combined with exercise, sweets and desserts can be eaten by people with diabetes. They are no more “off limits” to people with diabetes than they are to people without diabetes.
5. **You can catch diabetes from someone else.**
 - a. False. Although we don't know exactly why some people develop diabetes, we know diabetes is not contagious. It can't be caught like a cold or flu. There seems to be some genetic link in diabetes, particularly type 2 diabetes. Lifestyle factors also play a part
6. **Fruit is a healthy food. Therefore, it is ok to eat as much of it as you wish.**

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- a. False. Fruit is a healthy food. It contains fiber and lots of vitamins and minerals. Because fruits contain carbohydrates, they need to be included in your meal plan. Talk to your dietitian about the amount, frequency and types of fruits you should eat.
 7. **The best way to judge your blood sugar level is by the way that you feel.**
 - a. False. Some people have symptoms when their blood glucose is too high or low, others do not. Because some of the symptoms of high and low blood glucose are similar, it can be hard to know what your symptoms mean. The only way to be sure is to check your blood glucose.
 - i. <http://www.diabsguide.com/diabetes-myths-facts.html>
 8. **Carbohydrates Are Good for Diabetes**
 - a. True. Carbohydrates -- or "carbs" as most of us refer to them -- are good for diabetes. They form the foundation of a healthy diabetes diet -- or of any healthy diet. Carbohydrates have the greatest effect on blood sugar levels, which is why you are asked to monitor how many carbohydrates you eat when following a diabetes diet. However, carbohydrate foods contain many essential nutrients, including vitamins, minerals, and fiber. One diabetes diet tip is to choose those with the most nutrients, like whole-grain breads and baked goods, and high-fiber fruits and vegetables.
 9. **Diabetes accounts for 8% of all legal blindness**
 - a. True. Having high blood glucose and high blood pressure for a long time can damage tiny blood vessels in the eyes.
 10. **Americans with Northern European ancestry are most likely to get Diabetes (II)**
 - a. False. Prevalence of type II is greater in some ethnic populations: African Americans, Asian Americans, Hispanic Americans
 11. **Diabetes can cause foot sores or ulcers**
 - a. True. It causes nerve damage, which causes pain and numbness in the feet. Injuries can go unnoticed, which can lead to infection and, if it's bad enough, amputation.
 12. **Symptoms of high blood sugar are being very thirsty, having dry skin, feeling weak or tired, needing to urinate a lot**
 - a. True.