

Dear Patient,

This packet contains information to help you manage your diabetes. Because diabetes is a complex disease and requires lifelong care and attention, it is important that you have the information, support and inspiration you need to self-manage it from day to day.

The Certified Diabetes Educators (CDEs) at New West Physicians are here to assist you in gaining the knowledge, skills and tools to stay as healthy as possible.

Please talk to your provider about scheduling an appointment or attending a group class led by one of our CDEs. You can also call **303.716.8039** to set up a time.

Meanwhile, we encourage you to review and use the following information until you can come to your first appointment or class. You'll find a welcoming, supportive and expert team ready to answer your questions and partner with you in finding a self-management plan that works for you.

*Sincerely,*

*New West Physicians Diabetes & Nutrition Center*

# What is Diabetes?

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A dictionary definition might sound like this: a disease in which the body's ability to produce or respond to the hormone **insulin** is impaired, resulting in abnormal metabolism [processing] of carbohydrates and elevated levels of glucose [sugar] in the blood and urine.

## Diabetes Statistics:

According to the Centers for Disease Control, the rate of new cases of diabetes in the United States has begun to fall, but the numbers are still high. About 30.3 million Americans are living with diabetes, and 84.1 million are living with pre-diabetes, a serious health condition that increases a person's risk of type 2 diabetes and other chronic diseases.

**Type 2** diabetes accounts for 90% to 95% of all diagnosed cases of diabetes. Up to 25% of US adults who have diabetes don't know that they have it.

**Type 1** diabetes accounts for about 5%. Type 1 Diabetes often occurs in children, adolescents and young adults. But it can be diagnosed in adulthood as well. It is characterized by the body's attack on the specialized cells in the pancreas that make insulin, requiring the individual to be treated with insulin.

The health and economic costs for both types of diabetes are enormous:

- Diabetes was the 7th leading cause of death in the United States in 2013 (& may be under-reported).
- Diabetes is the leading cause of kidney failure, lower-limb amputations and adult-onset blindness.
- More than 20% of healthcare spending is for people with diagnosed diabetes.

Gestational diabetes is diagnosed during pregnancy and can cause serious complications for mothers and their babies. Complications include preeclampsia (high blood pressure brought on by pregnancy), birth-related trauma and birth defects. Women with gestational diabetes have a higher risk of developing type 2 diabetes later in life.

# Effectively Treating Diabetes

Choose healthier foods & beverages from a meal plan you can follow long term, reading food labels, and consuming smaller portions. Limit sweet and starchy foods which are high in sugar. Use the PLATE METHOD – described on the next page – to plan meals.



Getting regular, planned physical activity can decrease insulin resistance & the amount of sugar in the bloodstream.

Follow instructions and take medications that have been prescribed by your healthcare provider. Report side effects right away.



# The Plate Method

*Using the plate method to guide meal choices is a simple approach that can keep blood sugars in a healthy range.*

*It's balanced, portion- and calorie-controlled, and moderate in carbohydrates. It can also provide generous amounts of dietary fiber, vitamins and minerals.*



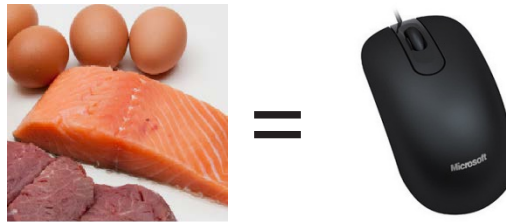
## Follow these tips to make your plates healthy:

- Use an 8-9-inch plate.
- Pile low-calorie, nutrient-rich veggies on half of the plate. Consider trying veggies that are new to you. Grilling or roasting brings out distinct and appealing flavors.
- Starches are healthier when they're eaten as close as possible to how they came from nature. (Examples: whole grains such as quinoa, hulled/hulless barley, or faro or a small white or sweet potato with the skin)
- Leaner cuts of protein such as poultry without the skin or fish fillets make good choices for the other quarter of the plate.
- To lessen calories, consider fat-free or 1% milk. Yogurt can be eaten in the place of milk; choose lower-calorie versions. Milk alternatives, such as almond or soy milk, can also be used.
- Choose whole fruits as dessert or save for a snack.
- To round out this meal, you can use a small to moderate amount of heart-healthy fat for a potato or salad or in which to sauté your veggies.
- A plate method breakfast might consist of eggs or egg whites, whole grain toast or cereal, milk or yogurt, berries or other fruit and 100% vegetable juice or veggies to go in an omelet.
- Resist the temptation to refill your plate with a second helping unless it is only with low-calorie veggies. Instead, drink a zero-calorie beverage, go for a short stroll or engage in another distracting activity.

# Size Up Your Servings

Measure food portions to know exactly how much you are eating. You can estimate serving portions when a scale or measuring cup is not available.

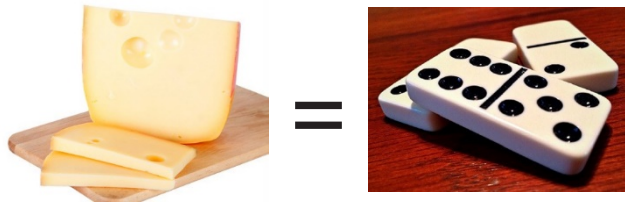
3 ounces of meat is about the size and thickness of a computer mouse, deck of cards, bar of soap or audiocassette.



A medium apple or peach is about the size of a tennis ball.



1 1/2 oz of cheese is about the size of 3 dominoes.



1/2 cup of ice cream is about the size of a racquet ball or tennis ball.



1 cup of mashed potatoes or broccoli is about the size of a small fist.



1 teaspoon of butter or peanut butter is about the size of the tip of your thumb.



1 ounce of nuts or small candies is equal to one handful.



## Important tips:

Choose nutrient-rich foods, especially when cutting calories.

2-4 servings from the Milk Group for calcium & Vitamin D.

2-3 servings from the Meat Group for protein & iron.

3-5 servings from the Vegetable Group for Vitamin A & other vitamins, antioxidants & fiber.

2-4 servings from the Fruit Group for Vitamin C.

6-11 servings from the Grain Group for Vitamin B & fiber.



# Using the Food Label for Healthy Choices and Healthy Blood Sugars

Here's what to look for:

## Serving Size

• Note that some packages have more than one serving. If you plan to eat more or less than one serving, be sure to note how that impacts the calories and nutrients you'll get.

## Saturated & Trans-Fat

• Choose foods low in saturated fat, 5% Daily Value or less, no more than 10-15 g/day.  
 • Avoid trans-fats  
 - Check the ingredient list for "partially hydrogenated oil" to find "hidden" trans fat, even if label indicates 0 g

## Total Carbohydrate

• For the purpose of managing blood sugar, TOTAL CARBOHYDRATE is more important than sugar grams  
 • Look for higher fiber foods with at least 3-5 grams per serving  
 • For overall health, limit added sugars to 9 tsp. or less for men and 6 tsp. or less for women  
 • Each 4 g of sugar = 1 tsp. of sugar.

<b>Nutrition Facts</b>	
8 servings per container	
<b>Serving size</b>	<b>10 (30g)</b>
<b>Amount Per Serving</b>	
<b>Calories</b>	<b>140</b>
<small>% Daily Values*</small>	
<b>Total Fat 6g</b>	<b>9%</b>
Saturated Fat 1g	<b>5%</b>
Trans Fat 0g	
<b>Sodium 260mg</b>	<b>11%</b>
<b>Total Carbohydrate 60g</b>	<b>20%</b>
Dietary Fiber 4g	<b>16%</b>
Total Sugars 3g	
Includes 1g Added Sugars	<b>2%</b>
<b>Protein 2g</b>	<b>4%</b>
<small>*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.</small>	

You can also check the ingredient list to see if a form of sugar has been added.

**Some other names for sugar:** agave syrup or nectar, cane syrup, caramel, carob syrup, coconut sugar, fruit juice concentrate, maple syrup, rice syrup, dextrose, fructose, and other ingredients ending in "ose". (The exception is "sucralose", which is another name for the sugar substitute, Splenda®) For more info, go to <http://bit.ly/2zIY9QI>

**% Daily Value gives you an idea if the food is low or high in a nutrient**

• 5% or less = low  
 • 6-10% = medium  
 • 11% or higher = high; take care to mostly avoid products with a high DV of saturated or trans-fat and sodium

# Cholesterol and Triglycerides

**Cholesterol** is an important and necessary bodily substance, a part of the structure of every cell. It is also needed for hormone development and the production of bile, which aids in fat digestion, plus several other functions. However, the body needs very little and too much cholesterol in your blood, raises your risk for heart disease & stroke.

**Triglycerides** refer to a type of fat or lipid found in your blood. Each time you eat more calories than you need, your body converts those calories into triglycerides, which are stored in fat cells. Later, hormones release triglycerides for energy between meals. If you regularly eat more calories than you burn, especially calories from carbohydrates, alcohol and fats, you may end up with high triglycerides.

Use the table below to learn more about triglycerides and the various types of cholesterol. Then compare the triglycerides and cholesterol in your blood to the desired ranges. If any of your results are out of range, decide now on lifestyle changes you'll make to improve the numbers.

Types of fat and cholesterol in the blood				
	Total Cholesterol	HDL (High Density Lipoprotein)	LDL (Low Density)	Triglycerides
Description	<ul style="list-style-type: none"> <li>Transported in the blood by carriers called lipoproteins</li> </ul>	<ul style="list-style-type: none"> <li>Has a small amount of cholesterol at its core</li> <li>Serves as a "garbage truck" to carry LDL cholesterol from the arteries to the liver to be recycled or removed from the body</li> <li>Think of it as "HELPFUL"</li> <li>a <b>HIGH</b> value is better</li> </ul>	<ul style="list-style-type: none"> <li>Has a lot of cholesterol at its core</li> <li>Can attach to artery walls &amp; combined with other substances form artery-clogging plaque</li> <li>Think of it as "LOUSY" or "LETHAL"</li> <li>a <b>LOW</b> value is better</li> </ul>	<ul style="list-style-type: none"> <li>A type of fat in the blood that comes from food &amp; body fat</li> <li>Often too high when HDL is low, possibly increasing the risk of heart disease</li> </ul>
Desired Range	Generally < 200 mg/dL	Men > 40 mg/dL Women > 50 mg/dL	<100 mg/dL (< 70 mg/dL for some)	<150 mg/dL

- Have these measured yearly or as recommended by your healthcare professional.
- Improve your numbers** with aerobic activity, a heart-healthy meal plan that includes lean proteins, whole grains, beans & fruits and vegetables. In addition, take any prescribed medications as directed. Inquire with your doctor or nutrition professional about adding the use of plant sterols or stanols as well.

**What are plant sterols/stanols?** Molecules that look a lot like cholesterol. As they travel through your intestines, they block cholesterol absorption. Many grains, veggies, fruits, legumes, nuts and seeds contain them, but in amounts too small to lower LDL cholesterol. However, manufacturers add them to some margarine spreads, orange juice, cereals, granola bars, etc. Plant sterols/stanols are also available in supplement form to help you reach the goal of 2 gms/day recommended by the National Cholesterol Education Program. Talk to your healthcare provider before taking this or any supplement. And keep in mind that supplements are a not substitute for a healthy lifestyle.

# BLOOD PRESSURE

An important puzzle piece you shouldn't ignore in your diabetes care

## WHAT is it?

High blood pressure (HBP) or hypertension is

- Blood flow pressure in the blood vessels that is higher than it should be
- A common and dangerous condition that makes the heart work harder
- Often referred to as the SILENT KILLER because there are usually no signs or symptoms

According to the American Heart Association about 1 of 3 U.S. adults—or about 85 million people—have high blood pressure.

*What is the blood pressure goal for those with diabetes?*  
**LESS THAN 140/90**

## WHO's at risk?

You are at greater risk for HBP if:

- You are overweight or obese
- You are physically inactive
- You have diabetes or kidney disease
- You are older. Risk increases with age, but HBP can occur at any age
- You are African American
- Your parents or other close relatives have HBP
- You have a high sodium diet

## WHY care?

HBP puts you at greater risk for:

- stroke
- heart attack
- heart failure
- kidney disease

## WHEN AND WHERE to monitor?

Have your BP checked at:

- Each doctor's visit
- Home with a home monitor, which you can purchase at your pharmacy.

Research shows BP improves when monitored at home.

## HOW to achieve a healthier BP:

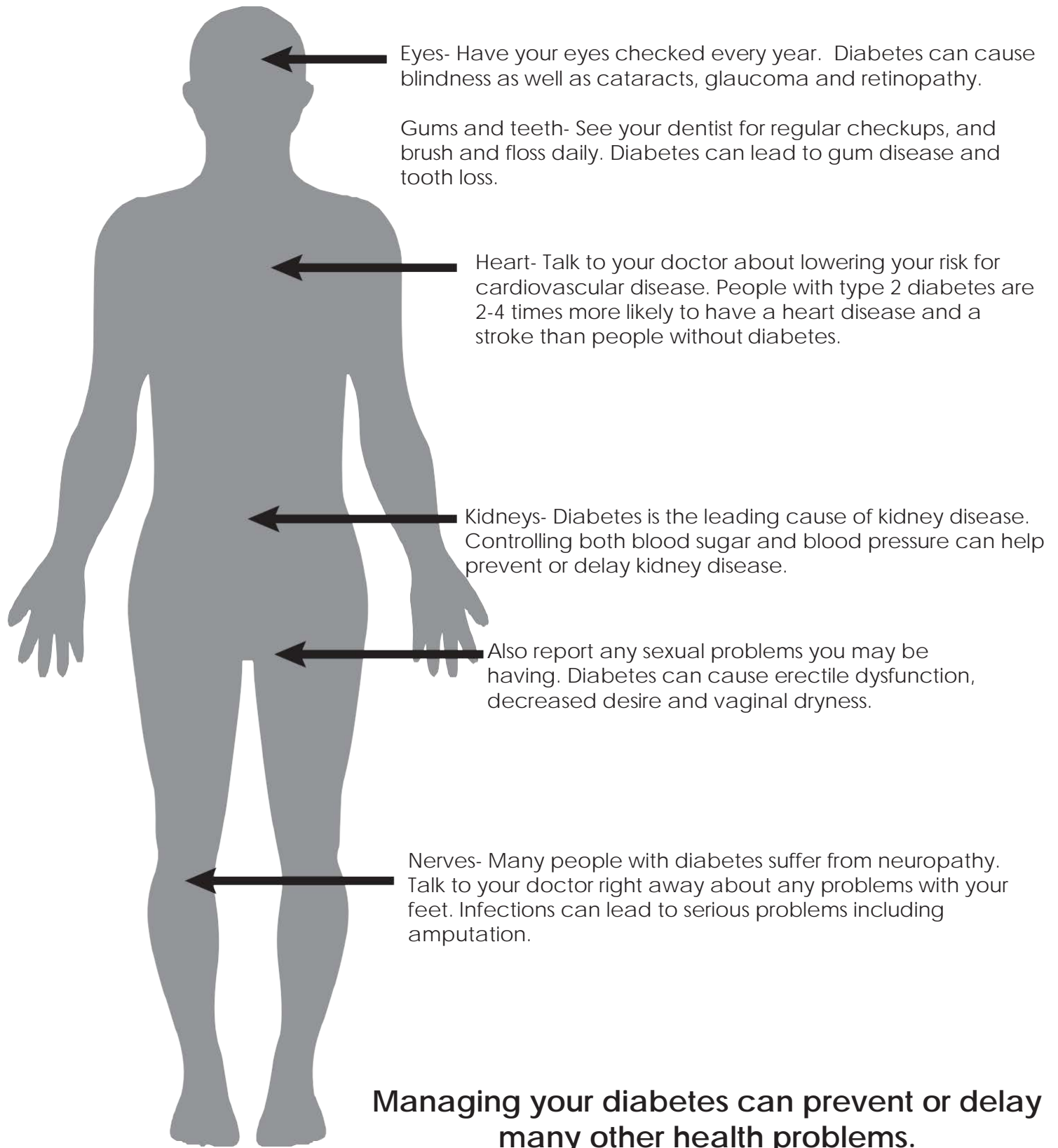
- Know your BP numbers
- Maintain a healthy weight or lose weight
- Limit alcohol to 1 drink daily for women, 2 for men
- Limit sodium intake to 1500-2300 mg/day or follow the DASH meal plan
- Be physically active
- Don't skip prescribed BP medications. Let your PCP know if you have side effects.

References: [www.heart.org/hbp](http://www.heart.org/hbp) , <https://millionhearts.hhs.gov> , <https://www.cdc.gov/bloodpressure>



# Diabetes, Head to Toe Risk of Complications <sup>9</sup>

Prolonged high blood sugars can be devastating to the human body.



# Do you know your A1C?

- The (Hemoglobin) A1C\* test measures your “sugar-coated” red blood cells.
- Research shows that keeping your A1C at 7 % or lower DRAMATICALLY reduces your risk for complications of diabetes such as damage to your eyes, kidneys, feet, and nerves.
- The A1C, along with your daily blood sugar results, provides valuable information for any needed changes in your treatment plan to achieve or maintain safe blood sugar levels.
- Track your A1C every 3-4 months.
- Just as you know your age & social security number, track and know these important numbers as well: A1C, blood pressure, cholesterol and urinary creatinine to microalbumin ratio. Review them regularly with your doctor and/or diabetes team.
- Stay educated with trustworthy information and tools to help you keep all these numbers in a healthy range.

Your estimated average blood glucose (mg/dl) is	If your A1C* is	Your most recent A1C*, measured on _____ (date)	Complications Risk
355	14		<b>High</b> risk of complications
326	13		
298	12		
269	11		
240	10		<b>Considerable</b> risk of complications
212	9		
183	8		
<b>154</b>	<b>7</b>		<b>Healthy range—less risk of complications**</b>
<b>140</b>	<b>6.5</b>		
126	6		Normal—low risk of complications**
97	5		

\*also known as glycohemoglobin, glycosylated hemoglobin, or glycated hemoglobin test

\*\*assuming daily blood sugar is not fluctuating between too high and too low

# Balancing Food, Medicines/Insulin And Exercise For Healthy Blood Sugars

## What raises blood sugar too much?

- Too much food, especially carbohydrates
- Fatty meals
- Skipping or taking little insulin and/or diabetes medicine, or taking it at the wrong time(s)\*
- Too little exercise\*\*\*
- Some medicines\* for other conditions

## What lowers blood sugar too much?

- Skipping or delaying meals or snacks or eating too little, especially too little carbohydrate
- Alcoholic beverages on an empty stomach
- Too much diabetes medicine and/or insulin or taking at the wrong time\*
- Some medicines for other conditions\*
- More exercise\*\*\* than usual

## What promotes safe and healthy blood sugars?

- Adequate exercise\*\*\* at suitable time(s) balanced with healthy foods & beverages\*\* consumed at regular intervals
- Correct dose and timing of insulin and/or diabetes medicine\*

NOTE: \*Don't make changes in your medicines or insulin without first consulting with your doctor and/or diabetes educator.

\*\*A registered dietitian or certified diabetes educator can assist you with designing a meal plan that includes foods you enjoy.

\*\*\*Obtain your doctor's approval before starting or significantly changing your

exercise. Reviewed/updated May, 2018

