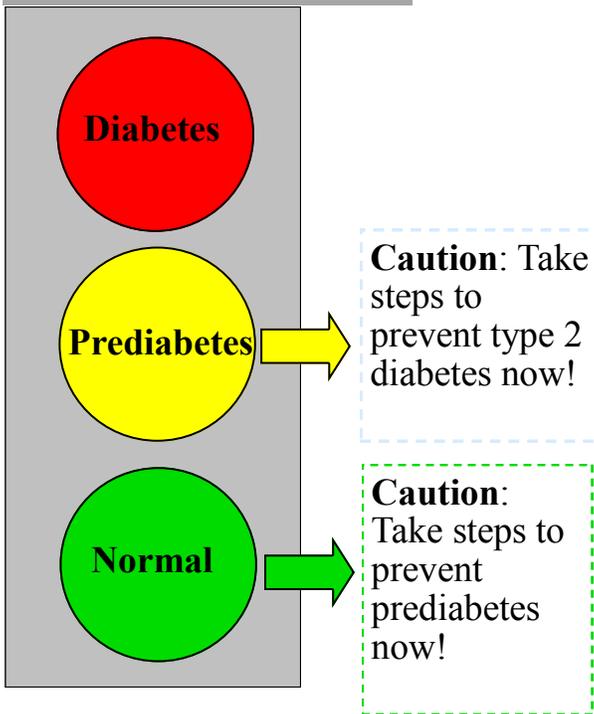


The University
of Michigan
Health System

Prediabetes. An emerging Epidemic.

Healthy Eating Tip
of the Month:
August 2015

Stop Diabetes
Before It Starts!



What is Prediabetes?

- It means your blood glucose level is higher than normal, but not yet high enough to be diagnosed as type 2 diabetes.
- With prediabetes, your body may be producing less insulin, your insulin sensitivity may be decreasing, or a combination of both.
- Insulin is a hormone that regulates the level of blood glucose helping your body turn carbohydrates into energy.
- Having high blood glucose puts you at risk for developing some long-term effects associated with diabetes, such as blindness, damage to nerves and kidneys, and increases the risk of developing heart disease.

Prevalence:

86 million
American adults
or every 1 in 3
adults have
prediabetes.

9 out of 10
people with
prediabetes do
not know they
have it.

Prediabetes
increases the risk
of developing
diabetes and
heart disease.

Half of all
Americans aged
65 years and older
have prediabetes.

Symptoms of Prediabetes:



- Some people with prediabetes have no symptoms, while other people do. You can have prediabetes and diabetes for years and not know it.
- The good news is that you can reverse prediabetes before it turns into Type 2 diabetes.



Risk Factors: The Risks Are Real.

- Obesity
- Aged 45 years and older
- Sedentary lifestyle
- Family history of diabetes
- History of gestational diabetes
- Increases risk of type 2 diabetes, heart disease, and stroke
- Conditions associated with diabetes: high blood pressure, high cholesterol, heart attack, heart disease, kidney failure, stroke, loss of toes, feet, or legs.
- Ethnicity (including Latino, Asian American, African-American, and

People who have diabetes are at higher risk of serious health complications:



STROKE



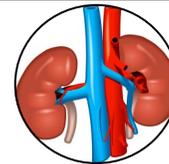
HEART DISEASE



HIGH CHOLESTEROL



LOSS OF TOES, FEET, OR LEGS



KIDNEY FAILURE

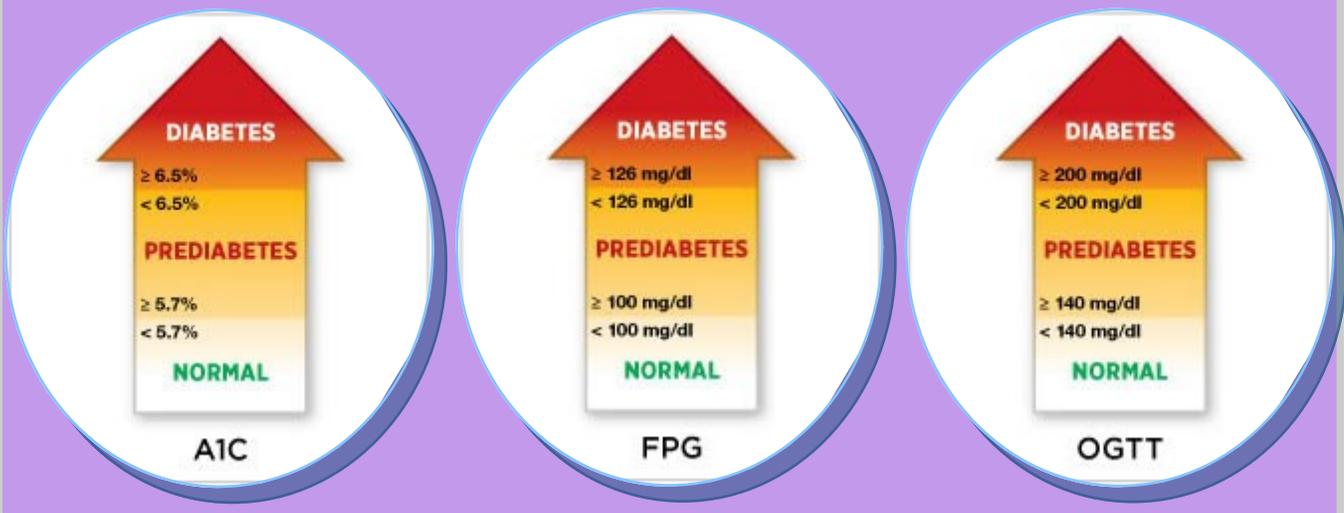


HIGH BLOOD PRESSURE

How is Prediabetes Diagnosed?

- Tests for diagnosing prediabetes should be completed in a health care setting.
- If the doctor finds that your blood glucose is high or you have symptoms of high blood glucose your doctor may need a second test to diagnosis prediabetes.
- **Results indicating prediabetes are:**
 1. Hemoglobin A1C of 5.7 – 6.4%
 2. Fasting plasma glucose (FPG) of 100 – 125 mg/dL on two blood tests or if two random blood sugar tests are \geq 140-200 mg/dL
 3. 2-h oral glucose tolerance test (OGTT) with a blood glucose of 140 mg/dl – 199 mg/dL

These images can help you determine whether your Hemoglobin A1C, Fasting Plasma Glucose or 2-Hour Oral Glucose Tolerance Test lab value level is considered normal, prediabetes, or diabetes.



How is Prediabetes Treated?

- Treating prediabetes and delaying or preventing diabetes is all about controlling your blood sugar.
- You can do this by eating a healthful diet and not skipping meals, exercising moderately for at least 30 minutes five days/week, and losing about 5-7% of your body weight.
- Communicate with your physician about your treatment plan and goals.



Prediabetes Treatment:

You can treat prediabetes and reverse high blood glucose in **4 WAYS**:

1. The first step is to **LOSE** weight!
2. You can achieve this through **DIET** and increased **PHYSICAL ACTIVITY!**



Healthy Eating

&



Being more active

- Treating prediabetes and delaying or preventing diabetes is all about controlling your blood sugar. You can do this by eating a healthful diet and not skipping meals, exercising moderately for at least 30 minutes five days/week, and losing just 5-7% of your body weight.
- Communicate with your physician about your treatment plan and goals.

3. Take diabetes medication prescribed by your physician, most commonly metformin.
4. Not smoking.

Current Research Findings:

- Individuals with prediabetes who lost 5% to 7% of body weight and engaged in regular physical activity reduced their diabetes risk by 58% and 71% respectively, which is doubled than that achieved through medication management.
- Diet and physical activity is shown to significantly reduce the chance that a person with prediabetes will develop diabetes. Metformin also reduced the risk of diabetes, but was not as effective.
- Prevention or delay of diabetes with lifestyle intervention or metformin can continue for at least 10 years.
- People with prediabetes who follow the physicians advice are more likely to try to control or lose weight, reduce fat or calorie intake, and increase physical activity.
- Replacing two daily meals with a low-calorie, high soy-protein drink with a low glycemic index resulted in a reduction in weight, both fasting blood glucose and insulin concentrations.

Preventing Prediabetes



Ways to Prevent Prediabetes:

1. **Watch your weight.** If you're overweight, the easiest way to begin weight loss is by reducing portion sizes, cutting calories, and eating less fat. Even losing 5-7% of total body weight is beneficial.
2. **Make healthy food choices.** Eat a variety of vegetables, fruits, low-fat dairy, whole grains, and lean meat daily.
3. **Add more fiber.** Whole wheat products contain fiber that keeps you full longer and slows down digestion by releasing carbohydrates slowly. Choose more fruits and vegetables.
4. **Be more active.** Physical activity can help you control your blood glucose, lose weight, and lower your blood pressure, as well as raise your "good" cholesterol and lower your "bad" cholesterol.
5. **Stop smoking.**
6. **Keep blood pressure and cholesterol levels under control.** Make an appointment with your physician to learn your numbers.

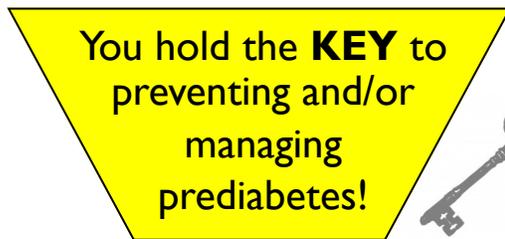
Choose MyPlate:

- The USDA and U.S. Department of Health and Human Services created the Choose My Plate Plan is beneficial to your health because it can help you to eat a variety of foods while encouraging the right amount of calories and fat.
- **Build A Healthy Meal.** Make sure to fill half of your plate with fruits and veggies, 1/4 your plate with whole grains, 1/4 your plate with lean protein, and 1 serving of low-fat dairy.



Healthy Eating Goal: Eat From All Food Groups Daily!

- **Focus on fruits.** Eat a variety of fruits, whether they are fresh, frozen, or canned, or dried.
- **Choose variety of veggies.** Eat more dark green, orange, and red veggies.
- **Consume low-fat dairy products.** Get 3 cups of low-fat or fat-free milk, yogurt, cottage cheese, other cheeses, and broccoli.
- **Switch to whole wheat.** It helps to regulate blood sugar, keep you full longer, lower cholesterol, lower blood pressure, and control weight. Look for food labels that say "100% whole wheat."
- **Go with lean protein.** Choose lean meats, poultry, fish, beans, nuts, and seeds. Bake it, grill it, roast it, broil it.



Small Steps to a Healthier Lifestyle:



Start your own team of supporters to prevent prediabetes. You don't have to do it alone!



Keep track of what you eat and drink each day.



Write down your goals.



Get more sleep. Try to get a least 8 hours of sleep each night to increase your energy and keep your body healthy.



Stay hydrated. Try to drink at least 64 oz. of water daily.



Make 1-2 healthy changes each week. If you fall off the wagon, don't get down on yourself! Review your goals and lean on your support group.



Control Your Portions

You may be asking yourself either of these three questions:

- What kinds of foods should I be eating or what can I do to prevent prediabetes?
- If I have prediabetes: What should I be eating to prevent it from progressing to Type 2 diabetes?
- If I have type 2 diabetes: What should I be eating to help control or manage my diabetes?
- This sheet is your guide to help you answer these questions and lead you in the right direction toward a **healthier lifestyle!**

Manage Your Portions. Plan Satisfying meals.

- ⇒ Eat foods with **fiber, protein, and healthy fat.**
- **Healthy fats** include: nuts, seeds, avocados, olives.
 - **Choose 100% whole wheat** (pasta, bread, cereal)
 - **Increase non-starchy vegetables**, such as broccoli, carrots, dark leafy greens, cucumbers, and peppers.
 - **Add beans to your diet**, such as black, white, pinto, kidney, lima, and garbanzo beans
 - **Stop eating when you feel satisfied**, not full or bloated
 - **Timing.** Eat regularly about every 3-4 hours to avoid getting overly hungry

GET ACTIVE!

Try to get at least 150 minutes of moderate activity a week—that's 30 minutes five days a week. You can get that by walking, bike riding, swimming, or anything else that involves moving your body!

Live. Life. Healthy

Page 7

Portion Control! What is a portion size?

3 oz of meat/fish/poultry/tofu	
1 oz. cheese	3 Dice 
1 tsp of oil/butter/salad dressing	Quarter 
1 cup cooked pasta/1 medium fruit/1 cup yogurt/1 medium potato	Baseball 
2 tbsp. of peanut butter/hummus or 1/4 cup of nuts or dried fruit	Golf ball 

Make a Diabetes Healthy Plate:

*About 45-60 g of carbs per meal. Ask your dietitian for the amount that's right for you!

Here's how:

- 1/4 the plate with 100% whole wheat = 22 g carb
- 1/4 non-starchy vegetables = 5 g carb
- 1/4 fruit = 15 g carb
- 1/4 lean protein = 0 g carb
- 1 cup low-fat/skim milk = 12 g carb
- **Total: 54 g carbohydrates**

How to read a food label for people with diabetes?

- Where are the **total carbohydrates** on the food label?
- A “one carb” serving = 15 grams of total carbohydrate
- Keep **saturated fat** and **sodium** to 5% of the daily value or less
- Good source of **fiber** = 10% or more of % daily value

Check the serving size and calories per serving.

Limit saturated fat, trans fat, cholesterol, and sodium.

Eat enough fiber, vitamin A, vitamin C, calcium, and iron

Sample Label for Flax Seed

Nutrition Facts	
Serving Size 3 Tbsp. (32g)	
Amount Per Serving	
Calories 160	Calories from Fat 100
% Daily Value*	
Total Fat 11g	17%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 10mg	0%
Total Carbohydrate 11g	4%
Dietary Fiber 9g	36%
Sugars 0g	
Protein 6g	
Vitamin A 0% • Vitamin C 0%	
Calcium 8% • Iron 6%	

Get Active, Move More!

3 Easy Tips to help you get started!

Tip 1: Move More, Make it fun!

- Add more activity each day until you reach at least 30 minutes a day, 5 days a week. This can be done in small amounts throughout the day. Each bit of movement counts!



Tip 2: Find ways to move more each day!

- Try not to sit for long periods of time. Standing burns more calories!
- Get off the bus one stop early or park your car farther away. Take advantage of the extra walk.
- Use TV breaks to stretch, walk, march in place, or do sit-ups.
- Walk around the house while you talk on the phone.
- Take the stairs to your office instead of the elevator. It's one way to sneak in exercise at work!
- Do chores. Sweep your house, wash dishes, work in the garden, or outside landscaping.

Tip 3: Get your friends, family, or co-workers involved.

- Have a set time to walk each day.
- Spend time walking your pet after supper each night.
- Walk with a friend during your lunch break and stick to it each day.
- Pick an activity you enjoy. Dance to your favorite music, play a sport, bike ride, hike, or swim.





⇒ Find out if you have prediabetes by seeing your physician to get your blood sugar tested.

⇒ Prevent Prediabetes by:

- ✓ Eat foods lower in fat & calories
- ✓ Be more active on most days
- ✓ Aim for a healthy weight, and lose weight if you're overweight

Need help preventing or managing prediabetes?

- **Consult a registered dietitian nutritionist** in your area to help build a healthy lifestyle eating plan for you.



Rethink Your Drink!



VS



- If you choose to drink sugary drinks, consider cutting back on the amount consumed, choose a smaller portion or container size, and drink it less often.
- Drinks that are sweetened with added sugars come with extra calories and provide few or no nutrients or fiber to support a healthful diet.
- **Added sugars**, also known as caloric sweeteners, are sugars and syrups that are added to foods at the table or during processing or preparation. Some of the names for added sugars are listed below: **Brown sugar, Corn sweetener, Corn syrup, Dextrose, Fruit juice concentrates, Dextrose, High-fructose corn syrup, Honey, Invert Sugar, Lactose, Maltose, Malt syrup, Molasses, Raw sugar, Sucrose, Sugar, and Syrup.**
- Drinking too many sugary beverages can increase your risk of health problems, such as weight gain, obesity, tooth decay, diabetes, and heart disease.
- Substituting zero-calorie or low-calorie drinks for sugar sweetened beverages can cut about 650 calories/day!

Easy Ways to Make SMART Beverage Choices:

- Chose water, diet soda, a small latte with fat-free milk, or other low-calorie beverages
- Make water more exciting! Try adding a slice of lemon, lime, cucumber, or berries
- Try zero calorie sparkling water with a natural lemon flavor
- Serve water with meals



For more information:

Centers for Disease Control and Prevention www.cdc.gov/diabetes
National Diabetes Prevention Program <http://www.cdc.gov/diabetes/prevention>
National Diabetes Education Program <http://www.cdc.gov/diabetes/ndep>
National Diabetes Information Clearinghouse <http://diabetes.niddk.nih.gov>
American Diabetes Association. www.diabetes.org



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Join a CDC recognized
Diabetes Prevention
Program and take the
Prediabetes risk quiz at:
[http://www.cdc.gov/diabetes/
prevention](http://www.cdc.gov/diabetes/prevention)

What's in it for me?

If you decrease your risk of prediabetes you will:

- Increase your energy and feel good about yourself
- Reduce your risk of developing chronic diseases
- Be healthy now and live a healthy lifestyle

Take Action Now. Use the ideas in this tip sheet to make small steps toward a healthier lifestyle and reduce your risk of diabetes and other health problems or diseases.

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