

Participant Handbook

MHN

Learning Objectives

- · Understand the basics about diabetes
- · Identify diabetes symptoms and risk factors
- Discuss lifestyle tips to prevent and/or delay the onset of type 2 diabetes
- Identify first steps to take if diagnosed with type 2 diabetes

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What is Diabetes?

- Diabetes is the disease that occurs when the body doesn't:
 - make enough insulin
 - make any insulin
 - use insulin well
 - ... leading to high blood sugar levels
- Over time, diabetes can lead to complications such as kidney disease, heart disease, or blindness
- Most common types: Type 1, Type 2 and Gestational

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What is Diabetes? cont.

Glucose and Insulin

- The body converts carbohydrates in food into simple sugars (glucose) in the digestive system
- · Glucose serves as the fuel source for the body
- When glucose enters the bloodstream, the pancreas is signaled to produce insulin
- Insulin acts like a key to let the glucose into the cells for use as energy

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Type 1 Diabetes (once known as juvenile diabetes or insulin-dependent diabetes)

- · Immune system damages its' insulin-producing cells
- · The body makes very little insulin or no insulin at all
- Major organs including the heart, blood vessels, nerves, eyes and kidneys can be impacted
- · Insulin shots or an insulin pump are required
- · Typically diagnosed in children or young adults
- · Accounts for about 5% of all cases of diabetes

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Type 1 Diabetes cont.

- The exact cause is unknown
- Factors that may signal an increased risk include:
 - Family history if a parent or sibling has it
 - Environment such as exposure to a viral illness
 - Genetic susceptibility the presence of damaging immune system cells (autoantibodies)
 - Geography certain countries such as Finland and Sweden have higher rates
- · Weight is not believed to be a factor in type 1 diabetes

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Type 2 Diabetes

- The body doesn't use insulin properly (insulin resistance)
 - Insufficient glucose enters the cells, builds up in blood
 - Major organs including the heart, blood vessels, nerves, eyes and kidneys can be impacted
- Typically diagnosed in people who are overweight, have a family history, are inactive, middle-aged or older
 - Becoming more common for children, teens, young adults
- Accounts for about 90% 95% of all cases of diabetes
- · In many cases, can be prevented or delayed

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Type 2 Diabetes cont.

- Believed to be caused by a combination of genetic susceptibility and environmental factors
- Certain factors increase the risk:
 - Weight
 - Inactivity
 - Family history
 - Age
 - Gestational diabetes
 - Polycystic ovary syndrome
 - High blood pressure
 - Abnormal cholesterol and triglyceride levels
 - Race Hispanic, African American, Asian, or Native American

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Prediabetes

Prediabetes

- Blood sugar levels are higher than normal, but not high enough yet to be diagnosed as type 2 diabetes
- 84.1 million adults (more than 1 in 3) have prediabetes
- · 90% of them don't know they have it
- Prediabetes raises your <u>risk</u> for type 2 diabetes, heart disease, and stroke
- Via early diagnosis (blood tests), it can often be reversed
- Specific lifestyle changes may help to reverse it

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Gestational Diabetes

- · Develops during pregnancy (gestation)
 - The placenta produces hormones which make cells more resistant to insulin, raising blood sugar
 - Pancreas produces more insulin but can't always keep up
 - Insufficient glucose enters the cells, builds up in blood
- Complications for baby can include: early preterm birth, respiratory distress syndrome, low blood sugar
- Risk factors include: age, family or personal history, excess weight and nonwhite race

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Symptoms of Diabetes

If you have the following symptoms, see your doctor about getting your blood sugar tested:

- · Urinate (pee) a lot, often at night
- · Are very thirsty
- · Lose weight without trying
- · Are very hungry
- Have blurry vision
- · Have numb or tingling hands or feet
- · Feel very tired
- · Have very dry skin
- · Have sores that heal slowly
- · Have more infections than usual

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Symptoms of Diabetes (cont.)

- Type 1 diabetes
 - May experience nausea, vomiting, or stomach pains
 - Symptoms can develop in a few weeks/months, may be severe
- Type 2 diabetes
 - Symptoms often develop over several years, can go unnoticed
 - Because symptoms are hard to spot, it's important to know the risk factors and visit your doctor if you have any of them
- Gestational diabetes
 - Usually shows up in the middle of the pregnancy, no symptoms
 - Women should be tested between 24 28 weeks of pregnancy

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Getting Tested - Type 1 Diabetes, Type 2 Diabetes, and Prediabetes

- Remember, you cannot rely on symptoms to know if you have type 2 diabetes
- It's not guaranteed that your doctor is screening for prediabetes during your annual physical
- If you have risk factors for prediabetes or type 2 diabetes, be sure to ask your doctor to include the test as part of your exam and discuss the results

See Handout B: Blood Sugar Testing

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Healthy Lifestyle Tips to Prevent or Delay the Onset of Type 2 Diabetes

If you learn you are at risk for Type 2 Diabetes...

- · Lose/manage weight
- · Eat a healthy diet
- · Get regular physical activity
- · Quit smoking
- Ask your doctor about a lifestyle changes program

Note:

Sometimes these measures are not enough to bring blood glucose levels down near the normal range. A next step might be combining lifestyle tips with taking a diabetes medicine that lowers blood glucose levels (under the supervision of your doctor).

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Lose/Manage Weight

- · Lose weight if you are overweight, and keep it off
 - You may be able to prevent or delay diabetes by losing 5 to 7% of your current weight
- · Use a safe weight loss plan
 - Don't lose weight too quickly; aim for ½ to 2 lbs. per week
- · Make solid lifestyle changes; miracle pills don't exist
- Come up with a plan
 - Different strategies work for different people, so you may have to try a few different approaches or a combination of techniques to be successful

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Lose/Manage Weight cont.

- · Major factors for weight loss and weight maintenance
 - Control the size of your portions
 - Choose the most nutritious foods over less nutritious foods

And...

- Increase physical activity

See Handout D: Weight Loss & Healthy Eating - The Basics

- · If desired, follow a diabetes-friendly diet, such as:
 - DASH (Dietary Approaches to Stop Hypertension) diet, or the
 - Mediterranean diet

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Aerobic Activity

- Helps keep your blood glucose, blood pressure and cholesterol levels on target, improves blood circulation and helps insulin work more effectively
- If you haven't been very active, start gradually
 - Your doctor may need to advise you if it's safe to start and how to proceed
- If you're healthy, aim for 30 minutes a day, 5 days a week
 - May be more if needing to lose weight
- You can also split up your activity for the day

Examples: brisk walks, dancing, swimming, water aerobics, biking or using a stationary bike

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Being Active Throughout the Day

- There are many ways to be more active that can help you burn calories and lower your blood glucose
 - Walk instead of drive
 - Get off the bus a stop early and walk the rest of the way
 - Work in the garden, rake leaves or wash the car
 - Play actively with kids
 - Walk around while talking on the phone
 - Park at the far end of the lot and walk

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If You Are Diagnosed with Diabetes

- Work with your doctor to identify your personal blood sugar goals based on your age, health, diabetes treatment, and whether you have type 1 or type 2 diabetes
- Your doctor may prescribe medicine and/or insulin to help get/keep your blood glucose in your target range
- · Maintain healthy lifestyle practices
- Ask your doctor for a referral for Diabetes Self-Management Education and Support (DSMES) services

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Diabetes Self-Management Education and Support (DSMES) services

DSMES services will help you:

- · Get the support you need from your healthcare team
- Learn the skills to:
 - Eat healthy
 - Be active
 - Check your blood sugar (glucose)
 - Take your medicine
 - Solve problem
 - Cope with the emotional side of diabetes
 - Reduce your risk of other health problems

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Summary

- · Diabetes impacts millions of Americans
- A healthy lifestyle can help us manage diabetes and in some cases, prevent type 2 diabetes
- · Keep the symptoms and risk factors in mind
- · If you're at risk, get tested
- If diagnosed, get support to manage the disease
- · Know you're not alone

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Resources

Online

- Find a CDC-recognized diabetes prevention program online or in-class https://nccd.cdc.gov/DDT_DPRP/Programs.aspx
- Get started safely with exercise www.diabetes.org/food-and-fitness/fitness/get-started-safely/blood-glucose-control-and-exercise.htmltes/managing/active.html
- DASH and Mediterranean diets https://health.usnews.com/best-diet/best-diabetes-diets
- Healthy eating on holidays and special occasions www.cdc.gov/diabetes/managing/eatwell.html
- Recently diagnosed www.diabetes.org/living-with-diabetes/recently-diagnosed/where-do-ibegin/getting-started-with-diabetes.html
- Living with type 2 diabetes http://main.diabetes.org/dorg/lwt2d/Where_Do_I_Begin-American_Diabetes_Association-v4.pdf
- Find a diabetes education program in your area www.diabeteseducator.org/living-withdiabetes/find-an-education-program

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www.mhn.com

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Handout A: Risk Test

Are you at risk for type 2 diabetes?



	WRITE YOUR SCORE IN THE BOX.	Height		Weight (lbs.))							
1. How old are you?		4' 10"	119-142	143-190	191+							
Less than 40 years (0 points) 40-49 years (1 point)		4' 11"	124-147	148-197	198+							
50-59 years (2 points)		5.0.	128-152	153-203	204+							
60 years or older (3 points)		5'1"	132-157	158-210	211+							
2. Are you a man or a woman?		5' 2"	136-163	164-217	218+							
Man (1 point) Woman (0 points)		5.3.	141-168	169-224	225+							
3. If you are a woman, have you ever been		5' 4"	145-173	174-231	232+							
diagnosed with gestational diabetes?		5' 5"	150-179	180-239	240+							
Yes (1 point) No (0 points)		5' 6"	155-185	186-246	247+							
4. Do you have a mother, father, sister or brother with diabetes?		5. 1.	159-190	191-254	255+							
Yes (1 point) No (0 points)		5'8"	164-196	197-261	262+							
5. Have you ever been diagnosed with high		5' 9"	169-202	203-269	270+							
blood pressure?		5. 10.	174-208	209-277	278+							
Yes (1 point) No (0 points)		5' 11"	179-214	215-285	286+							
6. Are you physically active?		6.0.	184-220	221-293	294+							
Yes (0 points) No (1 point)		6'1"	189-226	227-301	302+							
7. What is your weight category?		6.5	194-232	233-310	311+							
See chart at right.		6'3"	200-239	240-318	319+							
If you scored 5 or higher:	ADD UP	6' 4"	205-245	246-327	328+							
	YOUR SCORE.		1 point	2 points	3 points							
You are at increased risk for having type 2 diabetes. However, only your doctor can tell for sure if you do have type 2 diabetes or prediabetes, a condition in which blood glucose levels are higher than normal but not yet high enough to be diagnosed as diabetes. Talk to your doctor to see if additional testing is needed.			Adapted to 151:775-783 Original aig	gh less than t column: O po m Bang et al., An , 2009. orithm was validal diabetes as part o	ints Intern Med							
Type 2 diabetes is more common in African Americans, Hispanics/Latinos, Native Americans, Asian Americans, and Native Hawaiians and Pacific Islanders. Higher body weight increases diabetes risk for	type 2 diab	The good news is you can manage your risk for type 2 diabetes. Small steps make a big difference in helping you live a longer, healthler life. For more information, visit us at diabetes.org/alertdayor call 1-800-DIABETES (800-342-2383).										
everyone. Asian Americans are at increased diabetes risk at lower body weight than the rest of the general public (about 15 pounds lower).												

Handout B: Blood Sugar Testing

You'll need to get your blood sugar tested to find out for sure if you have prediabetes or type 1, type 2, or gestational diabetes. Testing is simple, and results are usually available quickly.

Type 1 Diabetes, Type 2 Diabetes, and Prediabetes

Your doctor will have you take one or more of the following blood tests to confirm a diagnosis:

A1C Test

This measures your average blood sugar level over the past 2 or 3 months. An A1C below 5.7% is normal, between 5.7 and 6.4% indicates you have prediabetes, and 6.5% or higher indicates you have diabetes.

Fasting Blood Sugar Test

This measures your blood sugar after an overnight fast (not eating). A fasting blood sugar level of 99 mg/dL or lower is normal, 100 to 125 mg/dL indicates you have prediabetes, and 126 mg/dL or higher indicates you have diabetes.

Glucose Tolerance Test

This measures your blood sugar before and after you drink a liquid that contains glucose. You'll fast (not eat) overnight before the test and have your blood drawn to determine your fasting blood sugar level. Then you'll drink the liquid and have your blood sugar level checked 1 hour, 2 hours, and possibly 3 hours afterward. At 2 hours, a blood sugar level of 140 mg/dL or lower is considered normal, 140 to 199 mg/dL indicates you have prediabetes, and 200 mg/dL or higher indicates you have diabetes.

Random Blood Sugar Test

This measures your blood sugar at the time you're tested. You can take this test at any time and don't need to fast (not eat) first. A blood sugar level of 200 mg/dL or higher indicates you have diabetes.

Result*	A1C Test	Fasting Blood Sugar Test	Glucose Tolerance Test	Random Blood Sugar Test
Normal	Below 5.7%	99 mg/dL or below	140 mg/dL or below	
Prediabetes	5.7 - 6.4%	100 - 125 mg/dL	140 - 199 mg/dL	
Diabetes	6.5% or above	126 mg/dL or above	200 mg/dL or above	200 mg/dL or above

^{*}Results for gestational diabetes can differ. Ask your health care provider what your results mean if you're being tested for gestational diabetes.

Source: American Diabetes Association

If your doctor thinks you have type 1 diabetes, your blood may also be tested for autoantibodies (substances that indicate your body is attacking itself) that are often present in type 1 diabetes but

not in type 2 diabetes. You may have your urine tested for ketones (produced when your body burns fat for energy), which also indicate type 1 diabetes instead of type 2 diabetes.

Gestational Diabetes

Gestational diabetes is diagnosed using blood tests. You'll probably be tested between 24 and 28 weeks of pregnancy. If your risk is higher for getting gestational diabetes (due to having more risk factors), your doctor may test you earlier. Blood sugar that's higher than normal early in your pregnancy may indicate you have type 1 or type 2 diabetes rather than gestational diabetes.

Glucose Screening Test

This measures your blood sugar at the time you're tested. You'll drink a liquid that contains glucose, and then 1 hour later your blood will be drawn to check your blood sugar level. A normal result is 140 mg/dL or lower. If your level is higher than 140 mg/dL, you'll need to take a glucose tolerance test.

Glucose Tolerance Test

This measures your blood sugar before and after you drink a liquid that contains glucose. You'll fast (not eat) overnight before the test and have your blood drawn to determine your fasting blood sugar level. Then you'll drink the liquid and have your blood sugar level checked 1 hour, 2 hours, and possibly 3 hours afterward. Results can differ depending on the size of the glucose drink and how often your blood sugar is tested. Ask your doctor what your test results mean.

What's Next?

If your test results show you have prediabetes, ask your doctor or nurse if there is a lifestyle change program offered through the CDC-led <u>National Diabetes Prevention Program</u> in your community. You can also search for an online or in-person program. Having prediabetes puts you at greater risk for developing type 2 diabetes but participating in the program can lower your risk by as much as 58% (71% if you're over age 60).

If your test results show you have type 1, type 2, or gestational diabetes, talk with your doctor or nurse about a detailed treatment plan—including <u>diabetes self-management education</u>—and specific steps you need to take to be your healthiest.

Source: www.cdc.gov/diabetes/basics/getting-tested.html

Handout C: Assess Whether or Not You Need to Lose Weight - Check your BMI

A quick way to assess whether or not you need to lose weight is to identify your body mass index (BMI).

Your BMI is based on a calculation of your weight and height. It can help you find out if you need to lose weight and how much weight you need to lose. Knowing this can help you set a weight loss goal.

Weight loss goals vary. For example, if you are very overweight, your goal might be to 10% of your current weight. Or you may just set a short-term goal to lose 10-15 pounds to start.

Using the table below:

- Calculate your height in inches (first column on the left).
- Follow the row to your corresponding body weight in pounds.
- Identify the category you fall under: normal, overweight, obese or extreme obesity.

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62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
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Source: Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report

Note: Health care professionals often use the Body Mass Index (BMI) as one tool to identify potential weight issues. While it certainly has limitations (inability to distinguish fat from muscle, to measure fat directly, etc.), it can serve as one tool in helping us identify the need to lose weight.

HANDOUT D: Develop A Weight Loss Plan

Are you ready to lose weight? You'll boost your chances for success by making a realistic, achievable plan. Remember to pick realistic goals – maybe start with one change in your diet and one physical activity change.

Remember to take it one step at a time, and to stay patient. Permanent weight loss won't happen over-night! Make your plan as specific as possible. Use the outline below as a guide.

Where am I now?

Example: I am 40 pounds over my desired weight.

Here's what I'll do to start working toward weight loss:

Example:

- 1. I'll take a 30-minute brisk walk 5 days a week at lunchtime.
- 2. I'll switch to diet soda and water instead of drinking regular soda and sweet tea.

Here's when I'll do it:

Example:

- 1. During the week, I'll walk for 30 minutes during my lunch hour.
- 2. Every meal and between.

Here's what I need to get ready:

Example:

- 1. I'll need comfortable walking shoes.
- 2. I'll need to buy diet sodas.

This might get in the way of my plan:

Example:

- 1. If it's raining, I won't be able to walk outside.
- 2. I might run out of diet soda.

If that happens, I'll do this instead:

Example:

- 1. I'll go to the recreation center and walk around inside.
- 2. I'll plan ahead to make sure that I don't run out or I can drink water instead.

Here's when I'll start:

Example: I'll start working toward both of these goals on Monday.

Here's how I'll reward myself (try to stay away from rewards that involve food):

Example: I'll go to the movies if I stick to my plan for the next month.

Once you've reached your first goals, set more!

Example of next steps:

- I will walk for 40 minutes instead of just 30 minutes, 5 days a week.
- I will change my afternoon snack from cookies to fruit.

Source: http://diabetes.org/food-and-fitness/weight-loss/getting-started/your-weight-loss-plan.html

For tips on eating out and grocery shopping, go to: www.cdc.gov/diabetes/managing/eat-well.html

Handout E: Weight Loss & Healthy Eating – The Basics

Let's get back to basics with how we eat and exercise. One truth remains in the battle of weight loss: you must eat and drink fewer calories than your body burns off.

No matter what path you choose, make sure you use a safe weight loss plan that will support your ultimate health goals. Losing weight too quickly is not good for you. Aim to lose ½ to 2 pounds per week. This means you would need to cut out 250-1,000 calories from what you would normally eat in a day.

There are many ways to tackle improving your health. But there are no miracle pills – you need to make permanent changes to your lifestyle if you want to lose weight safely and keep it off. It doesn't happen overnight; losing weight gradually over time is the best and healthiest way to go. Different strategies work for different people, so you may have to try a few different approaches or a combination of techniques to be successful.

Portion Control and Nutritious Food Choices

How you eat has a large impact on your weight. You need to choose the most nutritious foods over less nutritious foods and control the size of your portions.

These two eating strategies combined with increased physical activity are major factors for weight loss and weight maintenance.

Portion Control

Seven Simple Steps to Create Your Plate

An easy way to know portion sizes is to use the "plate method." It's simple and effective for both managing diabetes and losing weight. Creating your plate lets you still choose the foods you want but changes the portion sizes, so you are getting larger portions of non-starchy vegetables and a smaller portion of starchy foods. When you are ready, you can try new foods within each food category.

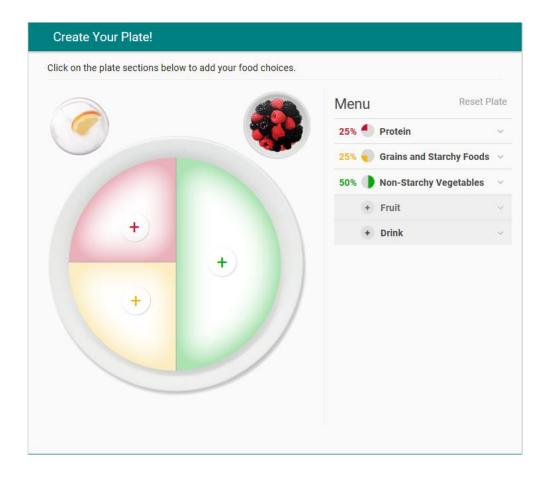
Try these **seven steps** to get started:

- 1. Using your basic 9-inch dinner plate, put a line down the middle of the plate. Then on one side, cut it again so you will have three sections on your plate.
- 2. Fill the largest section with non-starchy vegetables like salad, green beans, broccoli, cauliflower, cabbage, and carrots.
- 3. Now in one of the small sections, put grains or starchy food such as bread, noodles, rice, corn or potatoes.
- 4. And then in the other small section, put your protein. like fish, chicken, lean beef, tofu, or cooked dried beans.

- 5. Add a serving of <u>fruit</u>, a serving of <u>dairy</u> or both as your meal plan allows.
- 6. Choose healthy fats in small amounts. For cooking, use oils. For salads, some healthy additions are nuts, seeds, avocado and vinaigrettes.
- 7. To complete your meal, add a <u>low-calorie drink</u> like water, unsweetened tea or coffee.

Learn more at <u>Create Your Plate</u>, an interactive resource from the American Diabetes Association (ADA) that shows how a healthy plate should look. This tool allows you to select different foods and see the portion sizes you should use in planning your meals.

Source: http://diabetes.org/food-and-fitness/food/planning-meals/create-your-plate/



The Best Food Choices

Today we know more about nutrition than ever before. There is a great deal of information out there and it can be hard to sort through sometimes. So how do we navigate it all? For starters, it will help to know the general principles of healthful eating listed below.

Eat more vegetables, especially non-starchy vegetables. For a list go to:

www.diabetes.org/food-and-fitness/food/what-can-i-eat/making-healthy-food-choices/non-starchy-vegetables.html

- Choose fresh, frozen, and canned without added salt or fat.
- Include a variety of types and colors.
- Try to eat at least 3-5 servings of vegetables a day. 1 serving is: ½ cup of cooked vegetables or 1 cup of raw vegetables.

Choose whole grain foods over foods made with refined grains and flours.

- Try to make at least half the grains you eat whole grains.
- When buying pasta, breads, tortillas, crackers, and cereal, choose those with a whole grain listed as the first ingredient.
- Switch from sugary cereals to unsweetened whole grain cereal or oatmeal.
- For cereals, pick those with at least 3 grams of fiber per serving and less than 6 grams of sugar.

Choose lean protein foods.

- Try to include fish twice per week.
- Choose vegetarian sources of protein often such as beans and soy-based products.
- Eggs and egg substitute are also great sources of protein.
- Remove the skin from chicken and turkey.
- Choose lean cuts of beef and pork, such as those that end in "loin" (pork loin and sirloin).

Fruit is also a great option and can curb your sweet tooth.

• Choose fresh, frozen, or canned fruit without added sugars.

Choose low-fat milk and dairy.

- 1% or skim milk, or unflavored soy milk are best.
- Non-fat or low-fat yogurt (plain or sweetened with artificial sweetener).
- Opt for reduced-fat cheeses or cottage cheese.

Choose healthy fats in moderation and limit unhealthy <u>fats</u>.

• Healthy fats include vegetable oils, mayonnaise, trans-free margarine, margarine with plant sterols and stanols, <u>avocado</u>, olives, nuts, and seeds.

Some additional guidelines:

- Cut back on high calorie snack foods and desserts.
- Reduce intake of chips, cookies, cakes, full-fat ice cream, etc.
- Watch your portion sizes.
- Eating too much of even healthful foods can lead to weight gain.
- Drink water instead of sweetened beverages
- If you choose to drink <u>alcohol</u>, do so in moderation. (Two or less drinks per day for men and one or less drinks per day for women.)

Source: www.diabetes.org/food-and-fitness/weight-loss/food-choices/the-best-food-choices/

Handout F: Diabetes Superfoods

There are many foods rich in vitamins, minerals and fiber that you can make part of your daily eating plan that are good for your health. Some of these include non-starchy vegetables, fruits, legumes, nuts, seeds, and whole grains.

"Superfood" is a term used by many food and beverage companies as a way to promote a food thought to have health benefits; however, there is no official definition of the word by the Food and Drug Administration (FDA). The FDA regulates the health claims allowed on food labels to ensure there is scientific research to support the claims. The foods below are rich in vitamins, minerals, antioxidants and fiber that are good for overall health and may also help prevent disease.

Beans

Kidney, pinto, navy, or black beans are packed with vitamins and minerals such as magnesium and potassium. They are very high in fiber too.

Beans do contain carbohydrates, but ½ cup also provides as much protein as an ounce of meat without the saturated fat. To save time you can use canned beans but be sure to drain and rinse them to get rid of as much added salt as possible.

Dark Green Leafy Vegetables

Spinach, collards, and kale are dark green leafy vegetables packed with vitamins and minerals such as vitamins A, C, E, and K, iron, calcium and potassium. These powerhouse foods are low in calories and carbohydrates too. Try adding dark leafy vegetables to salads, soups and stews.

Citrus Fruit

Grapefruits, oranges, lemons and limes or pick your favorites to get part of your daily dose of fiber, vitamin C, folate and potassium.

Sweet Potatoes

A starchy vegetable packed full of vitamin A and fiber. They are also a good source of vitamin C and potassium.

Craving something sweet? Try a sweet potato in place of a regular potato and sprinkle cinnamon on top.

Berries

Which are your favorites: blueberries, strawberries or another variety? Regardless, they are all packed with antioxidants, vitamins and fiber. Berries can be a great option to satisfy your sweet tooth and they provide an added benefit of vitamin C, vitamin K, manganese, potassium and fiber.

Tomatoes

The good news is that no matter how you like your tomatoes, pureed, raw, or in a sauce, you're eating vital nutrients like vitamin C, vitamin E and potassium.

Fish High in Omega-3 Fatty Acids

Omega-3 fats may help to reduce the risk of heart disease and inflammation. Fish high in these healthy fats are sometimes referred to as "fatty fish." Salmon is well known in this group. Other fish high in omega-3 are herring, sardines, mackerel, trout, and albacore tuna. Choose fish that is broiled, baked or grilled to avoid the carbohydrate and extra calories that would be in fish that is breaded and fried. The American Diabetes Association Standards of Medical Care in Diabetes 2017 recommends eating fish (mainly fatty fish) twice per week for people with diabetes.

Nuts

An ounce of nuts can go a long way in getting key healthy fats along with helping to manage hunger. In addition, they offer magnesium and fiber. Some nuts and seeds, such as walnuts and flax seeds, are a good source of omega-3 fatty acids.

Whole Grains

It's the whole grain you're after. The first ingredient on the label should have the word "whole" in it. Whole grains are rich in vitamins and minerals like magnesium, B vitamins, chromium, iron and folate. They are a great source of fiber too. Some examples of whole grains are whole oats, quinoa, whole grain barley and farro.

Milk and Yogurt

You may have heard that milk and yogurt can help build strong bones and teeth. In addition to calcium, many milk and yogurt products are a fortified to make them a good source of vitamin D. More research is emerging on the connection between vitamin D and good health. Milk and yogurt do contain carbohydrate that will be a factor in meal planning when you have diabetes. Look for yogurt products that are lower in fat and added sugar.

 $\textbf{Source:} \ www. diabetes. org/food- and-fitness/food/what-can-i-eat/making-healthy-food-choices/diabetes-superfoods. html$

Handout G: Quick and Healthy, Diabetic Friendly Meals

Quick Breakfast Ideas

Pressed for time? You don't have to create an elaborate spread. Here are seven diabetes-friendly breakfast ideas to help you stay healthy and get on with your day.

1. Breakfast Shake

For a meal in a minute, blend one cup of fat-free milk or plain nonfat yogurt with one-half cup of fruit, such as strawberries, bananas, or blueberries. Add one teaspoon of wheat germ, a teaspoon of nuts, and ice and blend for a tasty, filling, and healthy breakfast. Time saver: Measure everything out the night before.

2. Muffin Parfait

Halve a whole grain or other high-fiber muffin (aim for one with 30 grams of carbohydrates and at least 3 grams of fiber), cover with berries, and top with a dollop of low- or nonfat yogurt for a fast and easy breakfast.

3. Whole-Grain Cereal

Hot or cold, the right cereal makes a great breakfast. Enjoy a bowl of high-fiber, low-sugar cereal with skim milk, or heat up plain oatmeal. "When it comes to whole grain cereal, you can't beat a bowl of steel-cut oats," says Kennedy. "They're packed with fiber, vitamins, and minerals and make a great base for a healthy and diabetes-friendly breakfast." Just remember that a little goes along way: A half cup equals one serving and about 15 grams of carbs. And watch what you add to it. Limit the butter and sugar — instead, top with fresh fruit, skim milk, or a sugar substitute to sweeten your meal.

4. Scrambled Eggs and Toast

The old standby breakfast of scrambled eggs and toast can be a healthy way to start the day if you cook them right. Scramble the egg in a nonstick pan with cooking spray. Enjoy this with a slice of whole-wheat toast topped with a light butter substitute, low-fat cream cheese, or sugar-free jam.

5. Breakfast Burrito

This filling and easy meal can be eaten on the go when wrapped in foil. Using a nonstick skillet and cooking spray, scramble an egg with onions and green peppers or spinach. Place in a warmed whole-wheat tortilla, sprinkle with nonfat cheddar cheese, add some salsa, and you have a healthy breakfast to keep you going until lunch.

6. Bagel Thins with Nut Butter

Bagels are notoriously large, so consider enjoying bagel thins instead — otherwise you may overload on carbohydrates. Top the bagel thins or flats with peanut or almond butter for a dose of healthy fat and protein that's a satisfying, lower-carb energy boost.

7. Almonds and Fruit

For a breakfast you can eat on the run, grab a hearty handful of whole, raw almonds and a small serving of low glycemic-index fruit, such as berries, a peach, an apple, or an orange. The fiber and healthy monounsaturated fats in the nuts will help you feel full, and the fruit adds additional fiber and a touch of sweetness to your morning without causing a blood-sugar spike.

https://www.everydayhealth.com/type-2-diabetes/diet/breakfast-ideas-for-diabetes/

More Breakfast Tips for Type 2 Diabetes

Choose healthy fats such as olive or canola oils, avocado, and nuts.

Choose lean meats, such as Canadian bacon, turkey bacon, turkey sausage, or eggs.

Eat low-fat dairy foods, such as nonfat or 1 percent milk, low-fat or fat-free yogurt (choose plain, unflavored yogurt and add one serving of fruit for sweetness, or choose yogurt sweetened with sugar substitutes), and low-fat cheeses.

Avoid fat- and sugar-laden coffee drinks. Drink regular coffee and use 2 percent milk and a sugar substitute.

To get more breakfast ideas and make sure you are eating the right portion sizes and types of foods, work with a registered dietitian or certified diabetes educator. A dietitian can help create a meal plan that is right for you and your type 2 diabetes.

Source: www.everydayhealth.com/type-2-diabetes/diet/breakfast-ideas-for-diabetes/

Quick Lunch Ideas

7 Easy Lunches for Type 2 Diabetes

Sticking to your diabetes diet at lunchtime is easier than you think. Here's a week's worth of ideas to keep your midday meal interesting and healthy.

By Hedy Marks

Medically Reviewed by Kelly Kennedy, RD

If breakfast is the most neglected meal of the day, lunch can often be the most hurried. A recent survey found that 62 percent of Americans rush through lunch at their desks, and even when we manage to leave the office, fast-food restaurants and food courts often prevail over more healthy options. But they don't have to be your only option — and, in fact, they shouldn't be your first choice if you have type 2 diabetes.

In general, try to pack your own lunch whenever possible — the health benefits, not to mention the cost-savings, can be enormous. Short on prep time? Put these quick and nutritious lunch ideas on your menu to fill you up and keep your blood sugar in check.

1. Salads

Salad should be in regular rotation for lunch. You can create a different salad every day of the week by varying your toppings. Try grilled chicken, shrimp, or fish, but avoid heaping on a lot of fattening ingredients, such as bacon bits and heavy cheeses.

Salads with lots of raw vegetables are best, including carrots, cucumbers, radishes, celery, and spinach. Sprinkle nuts or seeds on top, add a few dried cranberries, and garnish with some avocado chunks to give it zip. Choose a salad dressing made with vinegar and olive oil to avoid added sugars found in fat-free and low-fat versions and limit the serving to one tablespoon for a side salad and two tablespoons for an entrée-sized salad.

2. Sandwiches

As with salads, there are many ways to spice up a sandwich. Start with whole-grain bread or a whole-wheat tortilla. Pick a lean meat, such as turkey, ham, or grilled chicken; layer on your choice of veggies; add mustard, low-fat mayonnaise, or hummus to the mix — and you have a filling and tasty lunch. Stay away from greasy chips, French fries, and other fattening sides. Instead choose fruit, a few pretzels, or carrot and celery sticks to complement your meal.

3. Hearty Soups

Soup can be a good option for lunch, with many healthy choices to consider. Chicken noodle, chicken and rice, and tomato (made without cream) are all good choices. Others include butternut squash, gazpacho and other chunky vegetable varieties, miso, and pasta and bean soups. Avoid cream-based soups and chowders. Remember, soup freezes well. You can make a large batch and freeze it in individual containers; with a microwave you have a nearly instant lunch.

4. Pasta

As long as you choose whole-grain pasta, you can eat all types of noodles, such as penne, angel hair, or spaghetti. Top it with a healthy tomato sauce, then throw in chicken, shrimp, or turkey meatballs, and a variety of vegetables. Add a crisp salad and you have a healthy and filling lunch.

5. Pizza

Pizza can be a good choice — in moderation. Choose a thin-crust variety, ask for light cheese, and include vegetables as the topping instead of fatty meats like pepperoni.

6. Tuna, Chicken, and Shrimp Salads

When you make these protein-based mixes, you can control the mayonnaise and the good-health factor. Choose low-fat mayo, and not too much of it. Add fiber and bulk with chopped celery,

diced bell pepper, and chopped onions to taste. Serve on whole-grain bread or scoop onto a bed of lettuce.

7. Veggie Stir-Fry

For a more exotic lunch, go for a bowl of vegetable stir-fry and brown rice. Avoid the fast-food version, which can be high in fat and sodium, and make it yourself by sautéing the vegetables with a healthy cooking spray and soy sauce. Prepare it the night before for dinner, making enough to bring leftovers for lunch.

Source: www.everydayhealth.com/type-2-diabetes/diet/seven-lunch-ideas-for-diabetes/

Quick Dinner Ideas

Quick & Nutritious Dinner Ideas

- 1. Defrost frozen fish filets in the fridge the night before you plan to use them. Brush the fish lightly with olive oil and season with freshly ground pepper and other dried herbs. Bake the fish in the oven until done and serve with ½ cup of pre-cooked brown rice and steamed green beans.
- 2. Make a salad for your entrée. Chop up your favorite non-starchy vegetables and serve them over a bed of greens. Add some rotisserie chicken breast, cottage cheese or another reduced-fat cheese. Have your salad with a side of whole wheat garlic bread or some fresh fruit.
- 3. Try chicken tacos. Use rotisserie chicken or defrost and roast up some frozen chicken. Fill a corn or whole wheat tortilla with shredded chicken, tomatoes, lettuce, fresh cilantro and black beans. If you want, top it all with a spoonful of salsa and some non-fat plain Greek yogurt.
- 4. Scramble up a few eggs for dinner. Top them with peppers and onions that you've heated from frozen. Throw in a slice of whole wheat toast with some trans free margarine.
- 5. Try pasta primavera (vegetables with pasta). Add frozen vegetables to pasta during the last 3 minutes of cooking. Drain the water and then toss with a two tablespoons of light salad dressing and cooked diced chicken. Or, toss in pasta sauce if you prefer a red sauce.
- 6. Stir fry is another easy option! Keep a frozen vegetable stir-fry medley in your freezer. Sauté on the stove with vegetable oil. Add some frozen shrimp or heated chicken and serve over brown rice, quinoa or whole farro.
- 7. Make a veggie flatbread. Sauté some frozen or fresh veggies and pile them onto a premade whole wheat pizza crust (or a whole wheat pita will also work!) and top with reduced-fat mozzarella cheese and tomato slices. Bake in the oven until the cheese melts.
- 8. In the morning, toss some canned beans, canned tomatoes, tomato sauce, and frozen corn in a crockpot with some cumin, chili powder and garlic. Cover and cook on low for 6-8 hours to make a chili that will be ready when you get home. You can also add other vegetables that you have on hand like diced onions, bell pepper or carrots.

Source: www.diabetes.org/food-and-fitness/food/what-can-i-eat/food-tips/quick-meal-ideas/quick-dinner-ideas.html