







**Type 2 Diabetes** is a chronic disease that decreases your body's ability to turn the food you eat into energy, causing high blood sugar levels. This happens because your body does not have enough insulin or does not respond to insulin.

Insulin is a hormone that is made by the pancreas, a gland in the abdomen responsible for picking up glucose (also known as sugar) in the blood and delivering it into a variety of cells throughout your body. Your body uses this glucose for energy. With Type 2 diabetes, your body is not able to make enough insulin for the amount of glucose in the blood to deliver it throughout the body. Glucose is left in the bloodstream and eventually builds up, leading to high blood sugar levels.

Fortunately, Type 2 diabetes can be managed through lifestyle changes such as diet and exercise to help control blood sugar levels.

Please note that nutrition needs for Type 2 Diabetes vary from person to person. Talk to your Registered Dietitian or other healthcare provider to learn which foods are best for you and your symptoms.

## **MACRONUTRIENTS**

Macronutrients - including **carbohydrates**, **protein**, **and fat** - provide energy to the body. Each of these have a different effect on blood sugar levels. We'll explore these macronutrients throughout this packet to help you manage Type 2 Diabetes.



# **CARBOHYDRATES**

Carbohydrates, also known as carbs, are the body's main source of energy. Carbohydrate-rich foods include grains, fruits, dairy, starchy vegetables such as potatoes or peas, and sugar. Carbs have the biggest influence on your blood sugar. There are two types of carbs: simple carbs and complex carbs.



## SIMPLE CARBOHYDRATES

Simple carbs are smaller sugar molecules. Examples include table sugar and processed foods with added sugar.



### **COMPLEX CARBOHYDRATES**

Complex carbs are larger sugar molecules. Complex carbs usually have more nutrients such as vitamins, minerals, and fiber. Examples include whole fruits, milk, whole grain breads and pasta, and starchy vegetables.

Eating any carbohydrate food raises blood sugar levels. However, how quickly blood sugar levels rise depends on the type of carbohydrate. Simple carbs are more easily and quickly broken down and absorbed, therefore, they raise blood sugar levels quicker and have a bigger influence on blood sugar levels. On the other hand, complex carbohydrates take a longer time to break down and absorb, therefore, the release of sugar from these foods is slower and the effect they have on blood sugar levels is less. The slower release of sugar helps the body keep blood sugar levels at a healthy level.

To help manage Type 2 Diabetes when choosing carbohydrate foods, **choose more complex carbohydrates and fewer simple carbohydrates.** 

### Side Note on Fiber: A Carbohydrate

Fiber is a complex carbohydrate found in a variety of fruits, vegetables, and whole grain foods. Fiber keeps our bowel movements regular, helps maintain good gut health, and lowers cholesterol. Our body cannot digest or absorb fiber; therefore, it does not have an effect on blood sugar levels. Fiber also moves slower in the body, which slows down the movement of sugar through the body as well, keeping blood sugars from rising too high.





# **PROTEIN**

Protein helps keep muscles strong. Protein foods include meats, dairy and dairy products, beans, lentils and nuts. Protein foods have little to no effect on blood sugar and come from a variety of protein food sources including:



#### Lean cuts of meat

Examples: chicken breasts, pork loin, pork chops, turkey, lean beef



Fish and eggs



Low-fat or fat-free dairy products



## Plant-based proteins

Examples: nuts, seeds, and legumes (e.g., black beans, kidney beans, pinto beans, lentils, chickpeas)

# **FAT**

Fat serves many important roles in your body, including protecting your organs, supporting cell function, and helping your body absorb nutrients. Fat has little to no effect on blood sugar. However, consuming too much **saturated and trans fat** increases unhealthy cholesterol, which heightens your risk for diseases such as heart disease.

Focus on eating a variety of foods containing **unsaturated fat**, which can be beneficial in lowering cholesterol levels and managing blood sugar levels. Unsaturated fat is found in foods like salmon, tuna, avocados, nuts, and olive oil.



# GENERAL NUTRITION FOR TYPE 2 DIABETES

Here are some general nutrition recommendations to help manage your diabetes:

Eat a diet consisting of at least three of the following food groups: fruits, vegetables, protein, dairy, and grains.

Eat consistently throughout the day to help manage blood sugar levels. Aim to eat three meals a day and a snack or two.

Pair carbohydrate sources with protein, fat, and/or fiber foods. This slows down the digestion, absorption, and movement of sugar through the body, keeping blood sugars from rising too high too quickly. This leaves us with lower blood sugar levels and sustained energy throughout the day.

Examples: Pair apple slices (carb) with peanut butter (fat/protein) or crackers (carb) with tuna (protein)

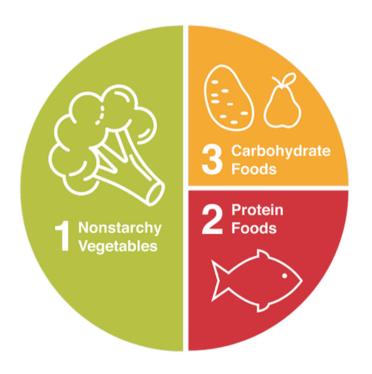




# MEAL PLANNING FOR DIABETES

### THE PLATE METHOD

The Plate Method is a simple way to meal plan created by the American Diabetes Association. It focuses on portioning out the foods you are eating using a 9-inch plate as a guide. This plate limits carbohydrates to ¼ of a plate and encourages more non-starchy vegetables and protein to help with blood sugar management.



### CARBOHYDRATE COUNTING

Another meal planning method is to count the number of carbs you are eating. Work with a dietitian to determine the recommended number of carbohydrates for your needs and what may be the best approach to start counting your carbohydrate intake. They can also help with portion control and reading food labels.





## PHYSICAL ACTIVITY

Being active is a very important part of managing Type 2 diabetes. Whether it is riding your bike, walking, swimming, gardening, going to the gym, playing basketball, or yoga, being active helps with managing weight, lowers the risk of heart disease and stroke, improves overall well-being, and, of course, regulates blood sugar levels.

Physical activity helps to regulate blood sugar levels by using glucose as energy to fuel your muscles and helps your body use insulin more effectively. Both help in lowering the amount of glucose in the blood. Consider adding a 10–15-minute walk to your after dinner routine!

It is recommended that adults engage in 150 minutes per week of moderate to intense heart-pumping aerobic activity and 2-3 strength-training activities per week. Before beginning any new physical activity or exercise routine, check with your healthcare provider to ensure your safety and health are being prioritized.







## **OPEN ARMS IS HERE TO HELP**

### YOUR OPEN ARMS MENU

Open Arms does not have a specific menu for type 2 diabetes; however, all Open Arms meals are diabetes-friendly, meaning, we keep the amount of carbohydrates in our meals between an average of 45-75 grams of carbohydrates and offer a variety of complex carbohydrates.

### **OTHER RESOURCES**

For more information about type 2 diabetes and nutrition, scan the QR codes or visit:



The American Diabetes Association: https://diabetes.org/



The Diabetes Plate: <a href="https://diabetesfoodhub.org/blog/what-diabetes-plate">https://diabetesfoodhub.org/blog/what-diabetes-plate</a>



Diabetes-Friendly Recipes: https://diabetesfoodhub.org/

### **GET IN TOUCH WITH OPEN ARMS**

Open Arms has a team of Registered Dietitians that provide free-of-cost nutrition education and counseling to Open Arms clients over the phone. If you have a question about your meals or want to schedule a one-on-one call, contact the Open Arms nutrition team!

## Our Registered Dietitians can help:

- Recommend a menu based on your needs and preferences
- Answer your questions about food, nutrition, and health
- Provide nutrition coaching to support you in reaching your health goals
- Suggest additional food resources if you need them
- Give you meal and snack ideas according to your likes, dislikes, and medical needs
- Provide nutrition information about Open Arms meals, such as calorie, nutrient, and allergen information





**612-767-7333** Ask to speak with a registered dietitian



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