# Understanding the Complex Relationship with Nutrition, Immunity and diabetes

### Jeff Jones\*

Department of Medical Oncology, University of British Columbia, Canada

Accepted on November 16th, 2021

## Introduction

The relationship between diabetes and nutrition can be confusing, especially for people who are recently diagnosed. You are what you eat, as the saying goes, and diabetics are no exception. Unfortunately, many people, particularly newly diagnosed diabetics, feel that their new diet would be bland and monotonous. They believe they'll never be able to eat dessert again, that they'll never be able to indulge in or enjoy sweet treats like the rest of us. This, however, is not the case. Diabetics can eat a wide variety of foods, albeit they must pay closer attention to what they eat than non-diabetics. This article, on the other hand, will provide you a quick overview of a diabetic diet and how to tailor it to your preferences [1].

Suddenly, someone who may never have given much thought to what they ate is faced with calorie monitoring, carbohydrate considerations, and meticulous meal planning. Diabetes and diet have a complex interaction that involves our bodies' ability to use carbs, protein, and fat for energy. All of these require insulin, although carbs necessitate the release of insulin more quickly after they are consumed. Carbohydrates are the primary source of blood sugar, also known as glucose, a chemical formula found in the blood that aids in the proper functioning of the brain and neurological system.

"Our lifestyles, which include activity, what and how much we consume, and weight gain, have an impact on our insulin needs," said Dr. Parilo, a Premier Physician Network physician. Understanding the importance of diet is critical to successfully treating diabetes. Your doctor, a nutritional coach, or a registered dietitian may provide you with a wealth of knowledge about specific parts of a diabetic diet and menu planning. Carbohydrate counts and exchanges are popular terms in diabetes care, and they will help you not only eat wisely, but also maintain a variety of foods that you can and should eat. A dietician will be informed of your unique condition, as well as your insulin or medication dosages, and will devise a manageable food plan for you that will promote your overall health and wellness [2].

In a diabetic diet, carbohydrates are extremely important. You'll learn how to spread out your carbohydrate intake throughout the day to help keep your blood glucose levels stable. Your dietitian or nutritional coach will also assist you in determining the appropriate amount of fats, proteins, and carbs in your diet, as well as provide advice on how to avoid issues like hypertension. A diabetic will typically consume between 40 and 55 percent of their daily calorie intake from carbohydrates. Of course, this is just an average, and your doctor may recommend more or fewer carbohydrates depending on your medical condition and other circumstances. Those newly diagnosed with diabetes should examine their existing eating habits to determine which ones are causing weight gain and high blood sugars and then set a goal to change one of those habits.

## **Diabetic Meal Plans**

Even if you follow a dietary pyramid or guidelines such as the servings indicated above, you may find that certain meals cause your blood glucose levels to jump. Everyone is unique. As a result, keeping a food log is critical, especially if you're newly diagnosed diabetes. Make a notebook or journal to keep track of how much and what kind of food you're eating, when you're eating it, and how you feel afterward. Take a blood glucose reading with your monitor before you eat and again 2 hours after you finish your meal. It's also a good idea to keep track of your levels in your journal [3].

For some people, getting into this habit might be tough and restricting, but with practise, you'll learn to recognise how different foods influence your body and predict how you'll feel after eating particular items. When it comes to diabetes management, diabetics will get familiar with the phrase exchange. A carbohydrate, meat, meat substitute, and fat exchange list is a list of carbohydrates, meats, meat substitutes, and fat contained in specific dishes. Individuals may readily assess the amount of protein, fat, and carbohydrates in certain foods, as well as their calorie level, by using a dietary exchange list.

Some dietary substitution lists are somewhat wide, while others are quite specialised. A nutritionist or dietitian will aim to suit your nutritional and calorie needs while also taking into account you're eating preferences. The exchange list allows you to "swap" foods from one group for those from another. If you don't want an apple in the fruit exchange, for example, 1/2 cup orange juice could be substituted. A diabetic can only trade products from other diabetics. For example, you can swap fruits from one list to another, but you can't swap a fruit with a fat exchange. When you first begin to adapt you're eating patterns and lifestyle to a diabetic diet, the system may appear hard at first, but it is actually rather simple, making decisions about what to eat and how much of it you can consume much easier [4].

Because carbohydrates are so crucial for diabetes management, many exchange lists provide the quantity of carbohydrate grams as well as carbohydrate options accessible in certain exchange lists. A carbohydrate choice list is a popular term for such a list. This list eliminates the need for people to read food labels to figure out how many carbohydrates are in each item, and it provides a simple way for people to translate and swap meals into a "carbohydrate choice" diet. In general, 15 grams of carbohydrates per serving is the suggested quantity for one carbohydrate choice. Instead of measuring grams of carbohydrates for your whole daily meal, the carb choice plan allows you to choose from a limited number of carbohydrate options [5].

#### References

- 1. Thomas MC, Moran J, Forsblom C, et al. The Association Between Dietary Sodium Intake, esrd, and All-Cause Mortality in Patients with Type 1 Diabetes. Diabetes Care. 2011;34(4):861-66.
- 2. Donnell M, Mente A, Rangarajan S, et al. Urinary Sodium and Potassium Excretion, Mortality, and Cardiovascular Events. N Engl J Med. 2014;371:612-23.
- Nakamura Y, Okamura T, Tamaki S, et al. Group N.D.R. Egg Consumption, Serum Cholesterol, and Cause-Specific and All-Cause Mortality: The National Integrated Project for Prospective Observation of Non-Communicable Disease and

its Trends in the Aged, 1980 (nippon data 80). Am J Clin Nutr. 2004;80(1):58-63.

- 4. Van Buul VJ, Tappy L, Brouns FJ. Misconceptions about Fructose-Containing Sugars and their Role in the Obesity Epidemic. Nutr Res Rev. 2014;27(1):119-30.
- Tappy L, Lê KA. Health Effects of Fructose and Fructose-Containing Caloric Sweeteners: Where do we Stand 10 Years after the Initial Whistle Blowings? Curr Diab Rep. 2015;15(8):1-12.

#### \*Correspondence to:

Jeff Jones

Department of Medical Oncology, University of British Columbia, Canada. E-mail: jones@ubc.edu