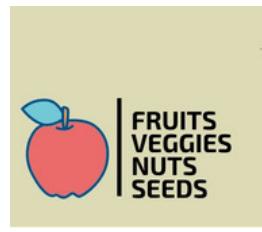


OPPORTUNITY FOR IMPROVING HEALTH AND QUALITY OF LIFE

A Solution to Type II Diabetes: A Plant-Based Diet

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Progress or Problem?

While longevity of life has seen an increase in recent decades, quality of life unfortunately has not. Prevalence of diseases are growing at an astronomical rate and show no signs of slowing down.

Treatment and prevention of these diseases must be taken seriously by health-care professionals and those suffering from diseases such as diabetes. According to The American Diabetes Association:

"Over 30.3 million American adults have been diagnosed with diabetes and 1.5 million more are diagnosed every year" (1).

Science provides evidence that a diagnosis of type II diabetes results from a combination of factors including an individual's genes and being overweight/obese. Extra weight can cause insulin resistance; a condition in which muscles, liver, and fat cells do not use insulin well. Insulin resistance is only one of the many dangers associated with type II diabetes.

Unfortunately, dangers of type II diabetes have proven to also be deadly. According to The American Diabetes Association, in 2015:

"Diabetes was the seventh leading cause of death in the United States and studies indicated this may be higher due to under reported death certificates" (1).

This epidemic raises serious concerns for health-care professionals and those diagnosed with type II diabetes. Treatment or management of this disease must be taken seriously to avoid further increasing growth rates.

Favorably, a positive form of treatment and management of type II diabetes does not require any form of expensive medication or dangerous medical procedures.

According to The Academy of Nutrition and Dietetics, consuming a plant-based diet – especially one rich in high quality fruits, vegetables, nuts, and seeds – is linked with substantially lower risk of developing type II diabetes (2).



Back To Our Roots

Research has shown that 58% of type two diabetes can be prevented or delayed through lifestyle changes such as increased physical activity, healthy eating, and weight loss (3).

Among the turn of the century, the industrial revolution of the 1900's brought more than just automobiles and air conditioning. World War I brought about new methods of food processing, including: canned and frozen goods, gas stoves, refrigerators, and other kitchen appliances. These provided foods to be stored and ready-to-cook whenever desired. By 1910, trans fats (now outlawed in large quantities) were available in processed foods to increase shelf life of items. By the 1940's fast food restaurants opened and high fructose corn syrup was introduced because of its cheap costs and easy preservation.

Unfortunately, the convenience of ready-to-eat, processed foods has some major consequences. According to The International Diabetes Federation:

"The most influential factor for the development of type 2 diabetes is poor diet (eg, processed and high fructose content foods)" (4).

Ready-to-eat processed foods and poor lifestyle habits are compromising lives of thousands of diabetic individuals yearly. It is time to ditch the food industry and highly processed foods and return to our roots; this means cutting out processed sugars, fats, and meats.

A quote by Micheal Pollan defines the base concept of a plant-based diet: **"If it comes from a plant, eat it. If it was made in a plant, don't."**

Individuals who incorporate this concept and consume a diet high in **whole grains, fruits, vegetables, legumes, seeds, and nuts**, gain improvements in glycemic control and blood lipids. They also show great benefit for control and prevention of diabetes (5).

Root foods were once the staple of human diets up until the past 100 years. Returning to our roots will provide the body with powerful resources to control, prevent, and treat type II diabetes. According to The Academy of Nutrition and Dietetics, three biological factors may explain why a low-fat, plant-based eating pattern is effective for glycemic control.

First, foods from plants contain less total and saturated fat, resulting in reduced caloric intake, weight loss, and improved A1C levels.

Second, a low-fat, plant-based diet improves insulin sensitivity, presumably by reducing intramyocellular lipid accumulation. As insulin sensitivity improves, carbohydrate tolerance increases.

Third, plant-based diets have demonstrated improvements in glycemic control while also reducing macro- and micro-vascular risks of type 2 diabetes (2).

Remember: Plant-based eating patterns do not have to be boring or intimidating. With a plethora of foods coming from plants, varied cooking tactics, and delicious spices, eating plant-based should never feel like you're missing out on delicious food.

For more information visit: The Academy of Nutrition and Dietetics

LIVING A PLANT- BASED LIFE

"Plant-based eating patterns combined with exercise have been found to improve diabetes control and reduce the need for medication in intervention trials as far back as 1976."

-American Diabetes Association (1)

Type II diabetics and health care professionals considering adopting a plant-based diet for treatment or prevention of type II diabetes should follow these practical guidelines:

EAT whole plants such as grains, nuts, and fruit

Plant foods are packed with a plethora of health benefits. Fiber, vitamins, minerals, healthy fats, and phytochemicals are just a few to mention. Due to the high fiber content of fruits and vegetables, people on a plant-based diet experience a slow breakdown of carbohydrates into sugar. Whole plant foods are known for their low- glycemic index. The fibrous coatings around beans and seeds mean the body breaks them down more slowly, thus causing a slower release of sugar in the blood steam. For individuals suffering from diabetes, this means better management of dangerous blood sugar levels.

AVOID animal products such as meat, eggs, and dairy

Along with dangerously high levels of saturated fat, red meats, eggs, and dairy products can raise blood cholesterol levels. This can lead to the clogging of arteries and a heightened risk of developing heart disease. Since diabetic patients are at a higher risk of heart attacks, avoiding high levels of saturated fat, cholesterol, and heme iron in animal products can help increase longevity of life. Dairy such as yogurts and cottage cheese often contain added sugars that can disrupt blood glucose levels. A plant-based diet high in beans, nuts, and whole grains will stabilize blood sugars and lower cholesterol levels.



FRUITS	VEGGIES	NUTS & SEEDS	GRAINS	LEGUMES
Apple	Broccoli	Cashew	Wheat	Kidney bean
Banana	Celery	Peanut	Rice	Navy bean
Orange	Turnip	Flax seed	Oats	Chickpea
Kiwi	Carrots	Almond	Amaranth	Black bean
Grapes	Cabbage	Walnut	Buckwheat	Soy bean
Blueberries	Spinach	Chia seed	Quinoa	Pinto bean
Mango	Kale	Pistachio	Barley	Lima bean
Pineapple	Asparagus	Sunflower	Millet	Lentils
and more...	and more...	and more...	and more...	and more...

Building a Plant-Based Plate

AVOID added sugars

Added sugars can be found in more than just processed sweets. Often times they are found lurking in foods such as pasta sauce, bread, and fruit juices. People with type II diabetes must be extremely aware of the sugar they are consuming to avoid the dangers of diabetic ketoacidosis. Review products ingredient lists to avoid sugars labeled as: pure cane sugar, brown sugar, corn syrup, honey, and fruit juice concentrate.

AVOID processed foods and added fats

The food industry first introduced trans fats, also known as hydrogenated oils, as a means to preserve and maintain shelf-life. Trans fats raise bad cholesterol while lowering the good cholesterol, and are very dangerous for people with type II diabetes. Steer clear of purchasing processed foods and avoid items that contain the words "hydrogenated oil" or "trans fat".

References

- (1) Trapp, Caroline, and Susan Levin. "Preparing to Prescribe Plant-Based Diets for Diabetes Prevention and Treatment." *Diabetes Spectrum*, American Diabetes Association, 1 Feb. 2012, spectrum.diabetesjournals.org/content/25/1/38.
- (2) <https://www.eatrightpro.org/-/media/eatrightpro-files/practice/position-and-practice-papers/position-papers/vegetarian-diet.pdf?la=en&hash=13D2FB5B600CF0778F6FE12B50ED9CE2645CAEF9>
- (3) "Diabetes Home." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 20 Feb. 2018, www.cdc.gov/diabetes/data/statistics-report/deaths-cost.html.
- (4) International Diabetes Federation. IDF diabetes atlas seventh edition. Brussels: International Diabetes Federation, 2015.
- (5) Tonstad S, Butler T, Yan R, Fraser GE: Type of vegetarian diet, body weight, and prevalence of type 2 diabetes. *Diabetes Care* 32:791–796, 2009
- (6) All images by: About Canva, Canva, www.canva.com/.