


5-2020

## Plant-Based Diet: How it Affects Health

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### Recommended Citation

Marsland, Sarah, "Plant-Based Diet: How it Affects Health" (2020). *Senior Honors Projects*. Paper 771.  
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# PLANT-BASED DIET: HOW IT AFFECTS HEALTH

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Sponsor: Betsey MacDonald

## Introduction

Plant-based dieting is believed to have a positive impact on overall health, including the prevention and reversal of chronic disease. A plant-based diet is composed of primarily fruits, vegetables, whole grains and non-processed foods. It is essential to understand this relationship because chronic diseases are the leading cause of death in the United States.



Chickpea pasta with roasted sweet potatoes, spinach, and tomatoes topped with an avocado oil vinaigrette.

## Methods

- Two subjects who typically consume meat and dairy committed to a plant-based diet for six weeks
- Subject 1 was a 21 year-old female who was in a healthy weight range and had no significant health concerns.
- Subject 2 was a 59 year-old male who was overweight and had several health concerns, including hypertension, pre-diabetes, and a history of blood clots
- Pre-diet questionnaire was conducted, including complete health history, knowledge of plant-based eating and current health status
- Throughout research period, subjects recorded weight loss, foods they were eating, challenges faced and benefits noticed
- Post-diet questionnaire including any changes in health status, exercise routine and diet as well as a reflection on the experience

## Results

### Before Planet-Based Diet

"I am overall healthy, but adopting this diet will help my health in the future. As a twenty-one-year-old, it can be common to take on unhealthy habits because they don't seem to affect me in the moment." — Subject 1	"As someone who is used to consuming meat and dairy products, it may be difficult at first to adjust to this style of eating. But overtime, this diet should feel less like a "diet" and more like a lifestyle." — Subject 1	"I have low energy levels. I feel tired despite a full night rest and currently do not exercise. I plan on exercising 1 hour per day after starting the plant-based diet." — Subject 2	"Physically, my health could be better. I need to lose weight. I have pre-diabetes and high cholesterol, triglycerides and blood pressure." — Subject 2
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### After Plant-Based Diet

"I feel empowered because I am making decisions now that will affect my health in the future. It feels good to create healthy habits and stick to them." — Subject 1	"It was most challenging to stick to the plant-based diet in social situations. However, I found that there are always ways to accommodate my needs and put my health first." — Subject 1	"I feel more energized. I walk about 1 hour 4-6 times per week. Now that I live a more healthy lifestyle, it is easier to exercise. It has become something that I enjoy." — Subject 2	"My health has improved with a 19 lb. weight loss and decreases in my hemoglobin A1C, cholesterol, triglycerides and blood pressure." — Subject 2
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PLANT BASED DIET AFFECTS WEIGHT

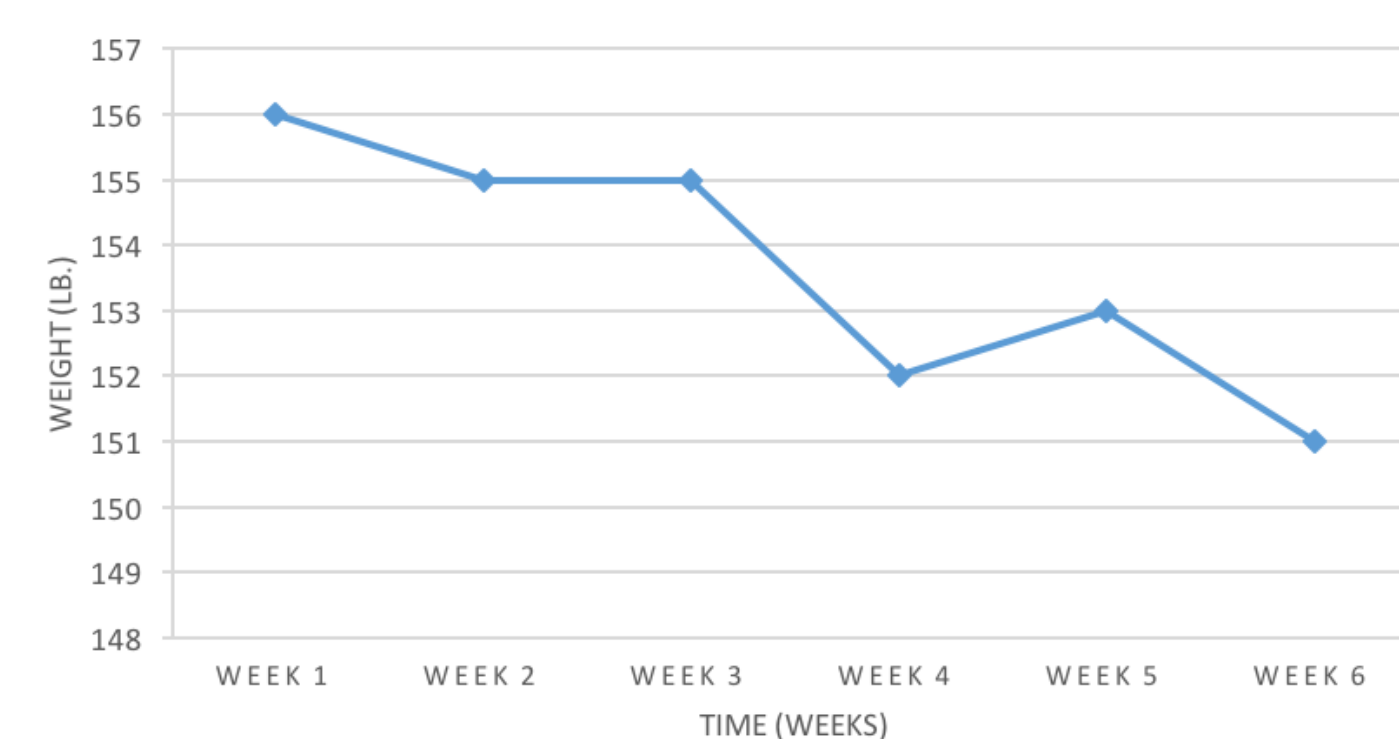


Figure 1: Subject 1 experienced an overall weight loss of 5 lbs. over 6 weeks.

PLANT BASED DIET AFFECTS WEIGHT

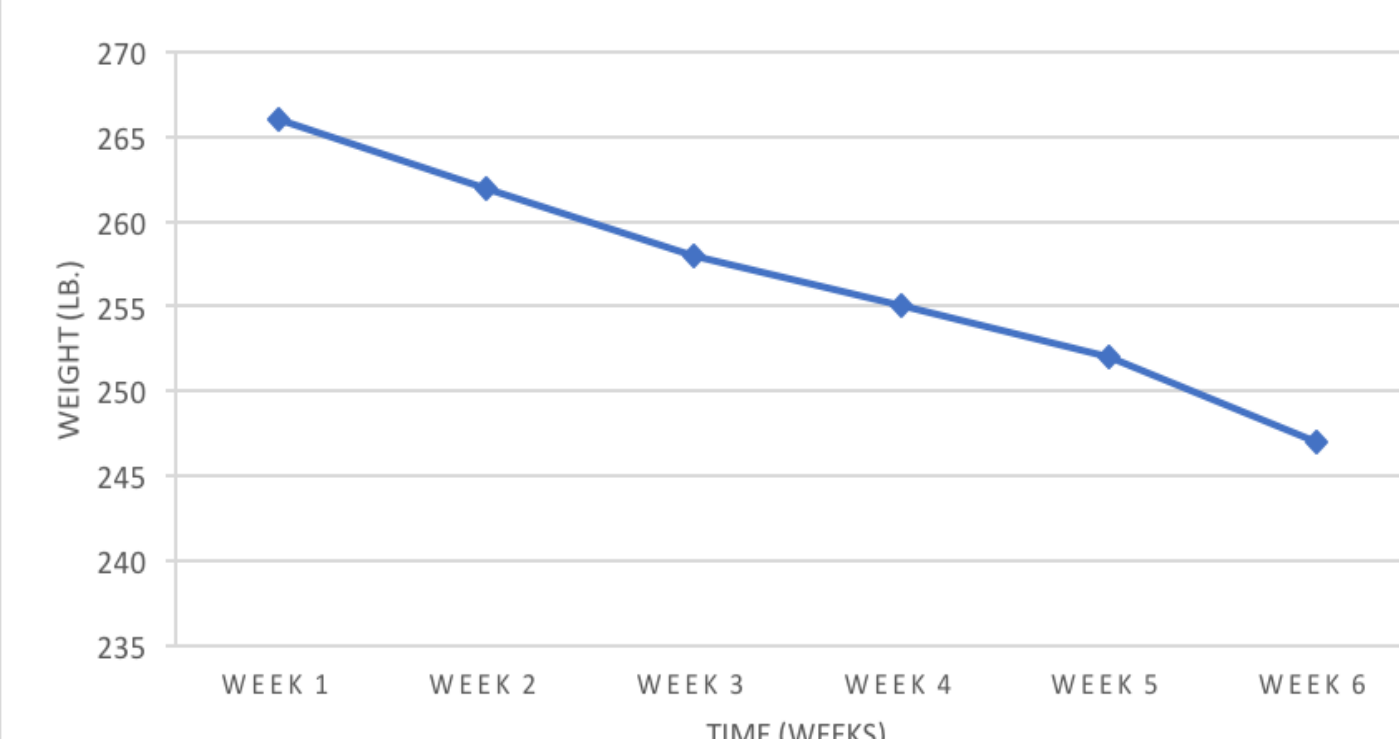


Figure 2: Subject 2 experienced an overall weight loss of 19 lbs. over 6 weeks.

"Some people think plant-base diet, whole foods diet is extreme. Half a million people a year will have their chests opened up and a vein take from their leg and sew onto their coronary artery. Some people would call that extreme."  
— Dr. Caldwell Esselstyn

"Good health is about being able to fully enjoy the time we do have. It is about being as functional as possible throughout our entire lives and avoiding crippling, painful and lengthy battles with disease. There are many better ways to die, and to live."  
— Dr. T. Colin Campbell

"It's never too late to start eating well. A good diet can reverse many of those conditions as well. In short: change the way you eat and you can transform your health for the better."  
— Dr. T. Colin Campbell

## Discussion

- Participating in the plant-based diet had several positive impacts:
  - **Improved energy:** Resulted in increased exercise, which improves cardiovascular health
  - **Decreased weight:** Reduces the likelihood of hypertension, cardiovascular and renal disease as well as several types of cancers
  - **Improved cholesterol levels:** Decreases plaque build up in arteries, leading to lower risk of blood clots resulting in stroke, coronary artery disease and peripheral vascular disease
  - **Improved blood pressure:** Decreases risk of of stoke, heart failure, heart attack, and kidney disease/failure
  - **Promoted cognitive health:** Healthier mind leads to a healthier body
- With these positive impacts, the likelihood of chronic disease is decreased, and the severity of existing chronic disease is significantly reduced
- These findings indicate that plant-based dieting drastically improves one's health and overall well being while increasing their life expectancy



Green tropical smoothie with spinach, cucumber, mango, and spirulina powder.

### Literature Cited

- Campbell II, T. M. (2004). *The China study: the most comprehensive study of nutrition ever conducted and the startling implications for diet, weight loss and long-term health.* Ben Bella Books, Inc.
- Esselstyn Jr, C. B. (2011). *Prevent and Reverse Heart Disease: The Revolutionary, Scientifically Proven. Nutrition-Based Cure.* New York: Avery.

### Acknowledgements

I would like to thank her sponsor for providing her guidance and insights throughout the honors project. I would also like to thank the subject who participated in my 6-week study.