

Your Gut Health: Cooking Tips and Tricks
A Fight CRC Webinar
October 20, 2021
Colin Zhu, DO, DipABLM, Chef

Colin Zhu, DO, DipABLM, Chef

I teach healthcare professionals and the general public eating and living a whole foods plant-based lifestyle, enhancing emotional wellness and creating a thriving mindset.

- 01 | Board Certified in Family Practice
- 02 | American College of Lifestyle Medicine Diplomate
- 03 | Diploma in health-supportive culinary arts
- 04 | Certification in health-coaching
- 05 | Author, international speaker, podcast & summit host









What Is Culinary Medicine?

“Culinary Medicine is the utilization of a unique combination of nutrition and culinary knowledge to assist patients in achieving and maintaining optimal health.”



Calorie is a calorie but...

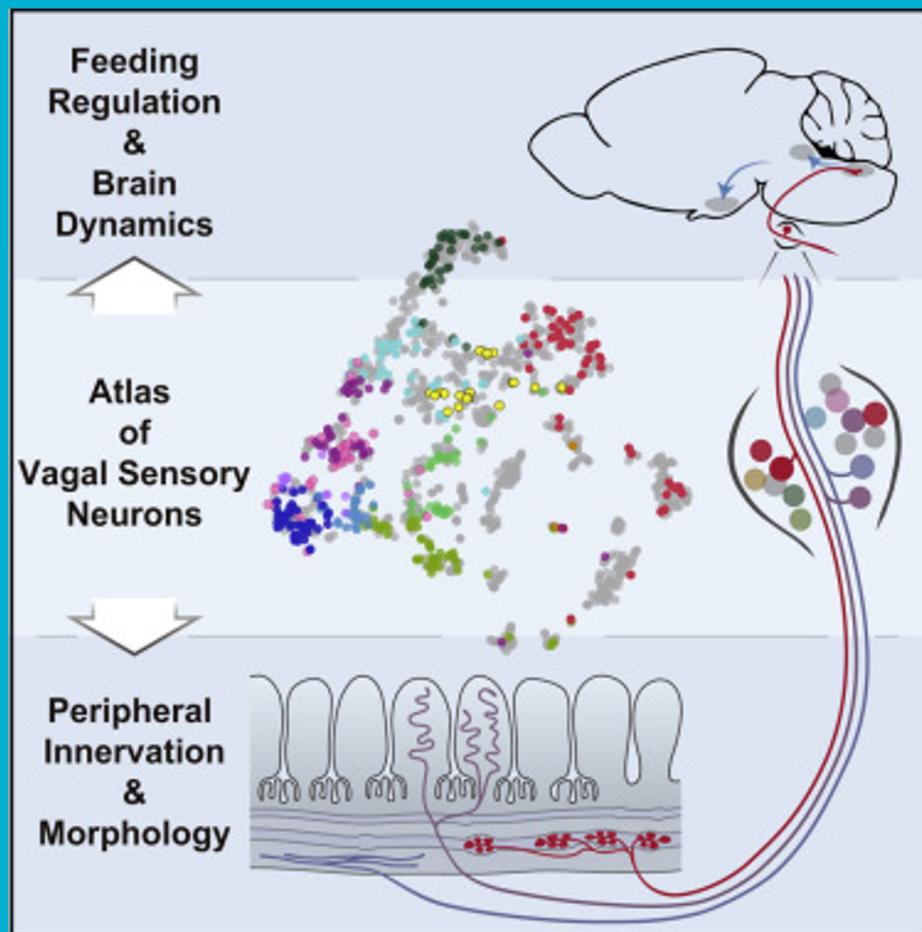
- Biochemically it is, however, depending on the food item, it comes with so much more.
- 1 gram of carbohydrate, sugar, or protein = 4 calories
- 1 gram of fat = 9 calories
- Eating the same amount of calories in different foods can have different effects.

This is what
200 calories
of food
looks like in
different
food groups:

 Grapes 290 grams = 200 Calories	 Ketchup 226 grams = 200 Calories	 Sliced Smoked Turkey 204 grams = 200 Calories	 Celery 1425 grams = 200 Calories	 Mini Peppers 740 grams = 200 Calories	 Broccoli 588 grams = 200 Calories
 Balsamic Vinegar 200 ml = 200 Calories	 Lowfat Strawberry Yogurt 196 grams = 200 Calories	 Canned Chili con Carne 189 grams = 200 Calories	 Baby Carrots 570 grams = 200 Calories	 Honeydew Melon 553 grams = 200 Calories	 Coca Cola 496 ml = 200 Calories
 Canned Black Beans 186 grams = 200 Calories	 Canned Pork and Beans 186 grams = 200 Calories	 Eggs 150 grams = 200 Calories	 Red Onions 475 grams = 200 Calories	 Apples 385 grams = 200 Calories	 Canned Green Peas 357 grams = 200 Calories
 Cooked Pasta 145 grams = 200 Calories	 Avocado 125 grams = 200 Calories	 Canned Tuna Packed in Oil 102 grams = 200 Calories	 Whole Milk 333 ml = 200 Calories	 Kiwi Fruit 328 grams = 200 Calories	 Canned Sweet Corn 308 grams = 200 Calories
 Snickers Chocolate Bar 41 grams = 200 Calories	 Doritos 41 grams = 200 Calories	 Marshmallow Treat 40 grams = 200 Calories	 Fiber One Cereal 100 grams = 200 Calories	 Flax Bread 90 grams = 200 Calories	 Dried Apricots 83 grams = 200 Calories
 M&M Candy 40 grams = 200 Calories	 Peanut Butter Crackers 39 grams = 200 Calories	 Cheetos 38 grams = 200 Calories	 Jack in the Box Cheeseburger 75 grams = 200 Calories	 Jack in the Box French Fries 73 grams = 200 Calories	 Jack in the Box Chicken Sandwich 72 grams = 200 Calories
 Potato Chips 37 grams = 200 Calories	 Hersey Kisses 36 grams = 200 Calories	 Sliced and Toasted Almonds 35 grams = 200 Calories	 French Sandwich Roll 72 grams = 200 Calories	 Blueberry Muffin 72 grams = 200 Calories	 Sesame Seed Bagel 70 grams = 200 Calories
 Fried Bacon 34 grams = 200 Calories	 Peanut Butter 34 grams = 200 Calories	 Salted Mixed Nuts 33 grams = 200 Calories	 Tootsie Pops 68 grams = 200 Calories	 Hot Dogs 66 grams = 200 Calories	 Wheat Dinner Rolls 66 grams = 200 Calories

What we know of the stomach

- Is a sac-like organ with strong muscular walls where it mixes and grinds our food.
- The stomach can hold up to 1 quart or 1.7 liters of food.
- Maximum volume is from 2-4 liters.
- Digestion starts mainly in the mouth, not the stomach.
- The vagus nerve is the major neural pathway that transmits information from the gut to the brain.
- Newer research by Bai, et al., has found that stretch receptors or mechanoreceptors are also found not only in the stomach but also in the small intestine and are more potent than the stomach.



Calorie Density vs. Nutritional Density

- No food is one single nutrient, it is actually an abundance of nutrients!
- When you eating whole foods plant-based, you are eating a package of “nutrients.”
- Calorie density is the number of calories in a given weight of food.
- WFPB in general are significantly lower in calorie per pound (calorie density) than animal products and processed foods.
- Consuming foods with a higher calorie density, they will take up less space in your stomach and you will tend to consume more calories than you need to feel full.
- Body weight is more of a function of proper food choices.

WHAT 500 CALORIES LOOKS LIKE

OIL



CHEESE



MEAT



GRAINS &
BEANS



FRUITS &
VEGGIES



FOOD	CALORIES PER POUND
Vegetables	65 to 195
Fresh Fruits	135 to 420
Potatoes, pastas, brown rice, sweet potatoes, corn, hot cereals	280 to 650
Legumes: peas and beans, such as pinto, garbanzo, black, and lentil beans	400 to 750
Nonfat dairy foods	180 to 450
Seafood, lean poultry, lean red meat	400 to 870
Dried fruit, jams, fat-free muffins and breads, including sourdough rolls, bagels, pita breads, and baguettes	1,200 to 1,400
Dried cereal, pretzels, fat-free cookies, fat-free potato chips	1,600 to 1,750
Regular salad dressing	1,800 to 2,000
Chocolate bars, croissants, doughnuts	2,200 to 2,500
Nuts and regular potato chips	2,500 to 3,000
Butter, margarine	3,200
Olive oil, corn oil, lard	4,010

FIBER that feeds
your microbiome

PHYTOCHEMICALS



VITAMINS

MINERALS

the MICROBIOME

that the apple contains

The name of the game is FIBER!

- Your best friend for weight loss.
- Essentially, “plant-roughage.” Made of up insoluble and soluble fiber.
- Average American consumes about 15 grams when what is recommended is from 28 grams (RDA).
- Only 3% of Americans actually get the daily recommendations!
- It is a complex carbohydrate nutritionally speaking.
- Also not found in animal-based foods.
- Prebiotics + Probiotics = Postbiotics
- They produce short-chain fatty acids which is unleashed by our gut bacteria.

Changing Our Microbiome

1. According to the American Gut Project in 2016, the #1 predictor of a health gut microbiome is the diversity of plants in your diet.
2. Fiber is food for the microbiome (prebiotic).
3. Microbes process parts of the fiber (soluble) in the colon and metabolize it.
4. Short-chain fatty acids (SCFAs) are released and they help with:
 - a. Reduce inflammatory microbes
 - b. Protect your heart
 - c. Lower cholesterol
 - d. Maintain a healthy gut
 - e. Communicate with your immune system
 - f. Cross the blood-brain barrier
 - g. *promotes satiety hormones

Fruits

Fruits are grouped by amount of fiber per serving. The serving size is ½ cup unless noted.

At Least 4 Grams per Serving (fiber rich)

Pear, medium, unpeeled	5.5
Apple, large, unpeeled	5.4
Avocado, raw, cubed	5.0
Dates, 3 dried	4.8
Raspberries	4.0

3.0 – 3.9 Grams per Serving

Blackberries	3.8
Orange, 1 medium	3.8
Prunes, 5 dried	3.5
Banana (8-3/4" long)	3.5
Raisins, packed	3.1

1.0 – 2.9 Grams per Serving

Apricots, 4 halves	1.2
Strawberries	1.5
Peach, peeled	2.2
Cherries, sweet	1.5
Mango	1.5
Applesauce, cooked	1.5

Vegetables

Vegetables are grouped by the amount of fiber in a serving. A serving size is ½ cup of fresh vegetables unless noted.

Note: Cooked vegetables often shrink so there are more in a ½ cup cooked portion than a ½ cup raw portion. Therefore, a ½ cup cooked vegetables likely has more fiber than ½ cup raw. Cooking does not decrease the fiber content of a food.

At Least 4 Grams per Serving

Lima beans	6.6
Kidney beans	5.7
Potato with skin, large	4.6
Green peas	4.4
Edamame	4.0

3.0 – 3.9 Grams per Serving

Artichokes	3.8
Sweet potato, peeled, med	3.8
Butternut squash	3.3
Parsnip	3.2
Beets, canned	3.0

Nutritional Components To Pay Attention To!

- Studies have shown that Turmeric has been able to reduce all three stages of colorectal cancer
- Phytates, found in the seeds of plants - in whole grains, beans, nuts, and seeds - have been shown to detoxify excess iron in the body preventing free radicals
- Phytates target cancer cells through a combo of antioxidant, anti-inflammatory, and immune-enhancing activities.
- There is an 8X difference in colorectal cancer risk between the two extremes of high-vegetable, low-meat diets and low-vegetable, high-meat diets.
- The NIH-AARP study - the largest study of diet and health in history - over a course of 10 years followed about 545,000 men and women aged 50-71 in the largest study and meat and mortality ever conducted: meat consumption was associated with increased risk of dying from cancer, heart disease, and dying prematurely in general.
- The body is more effective in preventing excess iron as opposed to getting rid of excess.
- Healthiest sources of iron are whole grains, legumes, nuts, seeds, dried fruits, and green, leafy vegetables
- Avoid drinking tea with meals and consume Vitamin C rich foods can improve iron absorption.

Practical Tips

1. Try one new recipe every week.
2. Experiment with one new herb or spice every week.
3. Eat more plants, follow the perimeter of a supermarket.
4. Simple kitchen utensils and appliances.
5. Cook with other family members and friends.
6. Experiment with a new vegetable, fruit, or whole grain per week.
7. Start with one knife, cutting board, spatula, pot, or saucepan.
8. Shop for bulk, whole dry foods and grains and stock up a pantry.
9. Consider decreasing grazing and eating less frequently and eat effectively.
10. Eat with others, eat sitting down, eat without distractions.

Resources

<https://kickstart.pcrm.org/en>

<https://www.lifestylemedicine.org/>

<https://listenable.io/web/courses/308/how-to-get-started-on-a-whole-foods-plant-based-lifestyle/>

The screenshot shows the homepage of the American College of Lifestyle Medicine. At the top, there is a navigation bar with the logo, social media icons, and links for 'MY PROFILE', 'CART', 'MEMBERS ONLY', 'DONATE', and 'SIGN OUT'. Below the navigation bar is a search bar and a main banner featuring a woman wearing a headset and working on a laptop. The banner includes the text 'LM2020 Lifestyle Medicine Health Restored' and several icons representing health and education. To the right of the banner are buttons for 'Monthly Webinars', 'Annual Conference', and 'My Learning Center'. Below these buttons is a 'JOIN TODAY' section with a 'Become a member' button. At the bottom, there are four columns of text: 'What is Lifestyle Medicine? Explore the Basics', 'Certification Board Exam', 'Program Certification Health Promotion', and 'LM101 New Curriculum Available'.

The screenshot shows the homepage of the 21-Day Vegan Kickstart program. The top navigation bar includes 'En Español', 'About', 'Login', and 'P'. The main banner features a close-up of fresh vegetables and a bowl of salad, with the text 'Start Your Journey to Health' and 'The 21-Day Vegan Kickstart will help you take control of your health with a plant-based diet.' Below the banner are two main sections: 'Download the App' with 'Download on the App Store' and 'GET IT ON Google play' buttons, and 'Sign Up Free Online' with a 'Sign Up' button. The text for 'Sign Up Free Online' says 'Register today to access everything you need to start a plant-based diet.'

Lessons

▶ Introduction

🔒 How to Set Up Your Kitchen Literally & Mentally

🔒 How to Set Up Your Pantry

🔒 How to Set Up Your Fridge & Freezer

🔒 Kitchen Appliances & Utensils

🔒 The Food Groups of WFPB

🔒 How to Navigate the Supermarket: Part 1

🔒 How to Navigate the Supermarket: Part 2

🔒 Cooking Techniques & Meal Prep & What to Make

🔒 Tips and Resources

07:01

09:08

07:26

06:45

05:36

07:03

08:29

HEALTH & FITNESS

How to Get Started on a Whole Foods Plant-Based Lifestyle

These are the best essentials on what you need to know on how to get started incorporating more whole plant-based foods into your lifestyle. Want to get healthier in 2021 and beyond? Look no further!

👤 Created by [Colin Zhu, DO](#)

👤 10 lessons | ⌚ 1h 6m | 🏆 95%



You Learn Our 5 To THR5™ Pillars



Resilience

Enhancing our emotional and mental fortitude as a necessary skillset



Food As Medicine

Reestablishing cooking as a way of life using a whole foods plant-based approach



Community

Understanding service, leadership, tribe-building, & our impact on the environment to flourish together

Where To Find Dr. Zhu

Websites: <https://www.thethr5formula.co/>

<https://www.chefdoczhu.com/home>

FB/IG: [@thechefdoc](#)

Podcast: <https://www.youtube.com/thechefdoc>



Free GIFT and OFFER!

SCAN ME



50OFFFIGHTCRC

References:

1. <https://www.cdc.gov/nchs/products/databriefs/db360.htm>
2. <https://www.cdc.gov/healthyweight/effects/index.html>
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2992692/#:~:text=The%20normal%20capacity%20of%20the,of%20meal%20ingested%2C%20and%20the>
4. <https://www.webmd.com/women/features/stomach-problems##1>
5. <https://www.pritikin.com/your-health/health-benefits/healthy-weight-loss/1318-why-not-just-count-calories.html>
6. <https://www.uwhealth.org/healthfacts/nutrition/190.pdf>
7. <https://doi.org/10.1016/j.cell.2019.10.031>
8. The Forks Over Knives Plan by Alona Pulde, MD and Matthew Lederman, MD
9. The Vegan Starter Kit by Neal Barnard, MD
10. Fiber Fueled by Dr. Will Bulsiewicz, MD
11. How Not To Die by Dr. Michael Greger, MD