

Fiber is your best Friend!

Practical recommendations for establishing a healthy eating lifestyle

Presented by Dr. Eduardo Cancino
Region One ESC Professional Staff Development Day - Personal Improvement Strand
December 14, 2018

Fiber is your Best Friend!

- ▶ Making Better Choices
 - ▶ A Personal journey...
- ▶ Glycemic Index
 - ▶ Not all Carbohydrates are the same
- ▶ Glycemic Load
 - ▶ Benefits of introducing Fiber-rich foods in your meals
- ▶ The Tortilla Dilemma!
 - ▶ Should it stay or should it go?
- ▶ Quality Food Combinations
 - ▶ From focus on Diet to focus on Healthy Lifestyle

Extreme Longevity

Areas of the World Where People Live Longer



Sardinia, Italy



Loma Linda, California, U.S.A.



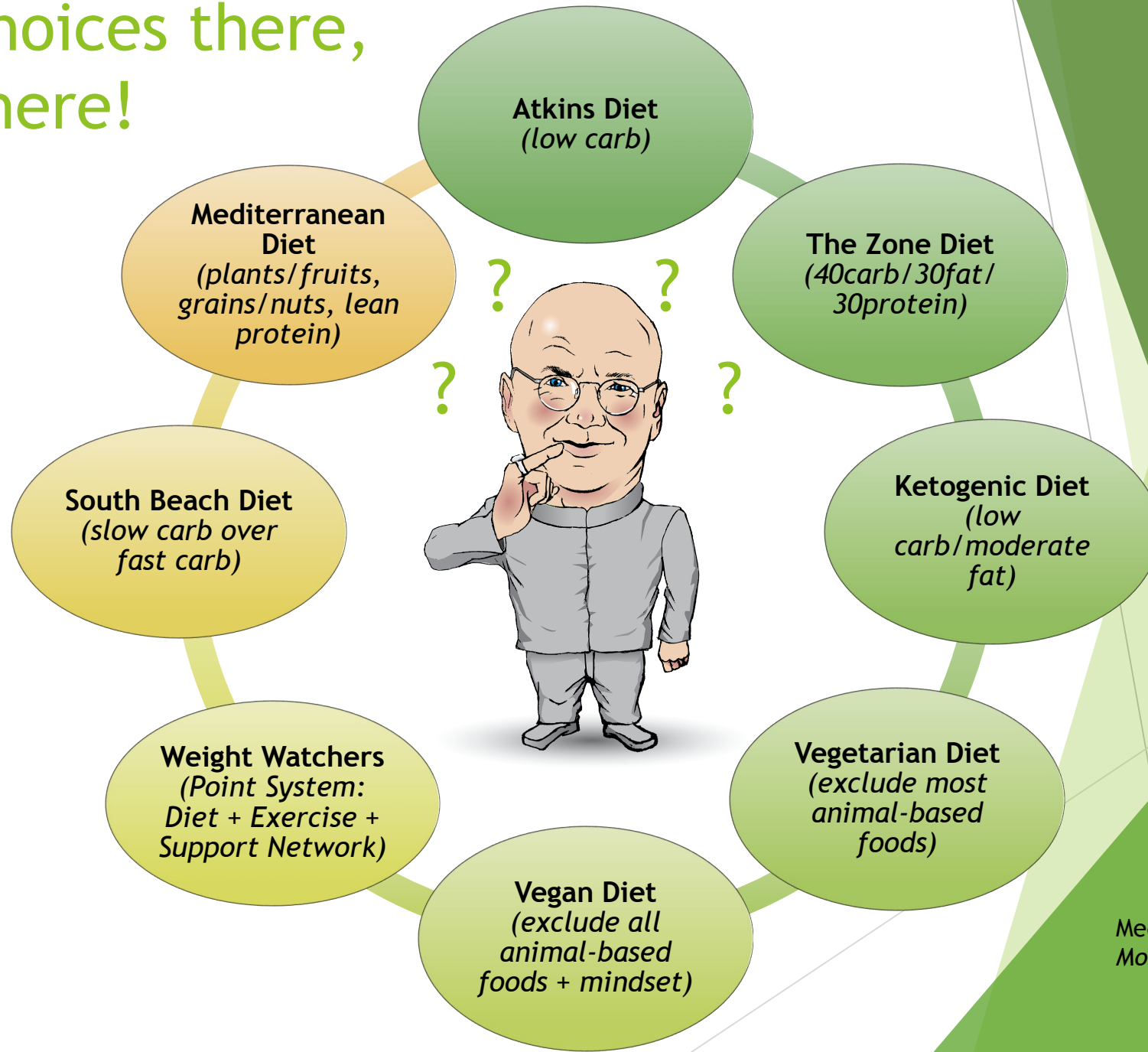
Okinawa, Japan

Large number of people over 100 years!

- Physical activity
- Strong social networks
- Diet rich in antioxidant fruits and vegetables, healthy grains and proteins

Choices here, choices there, choices everywhere!

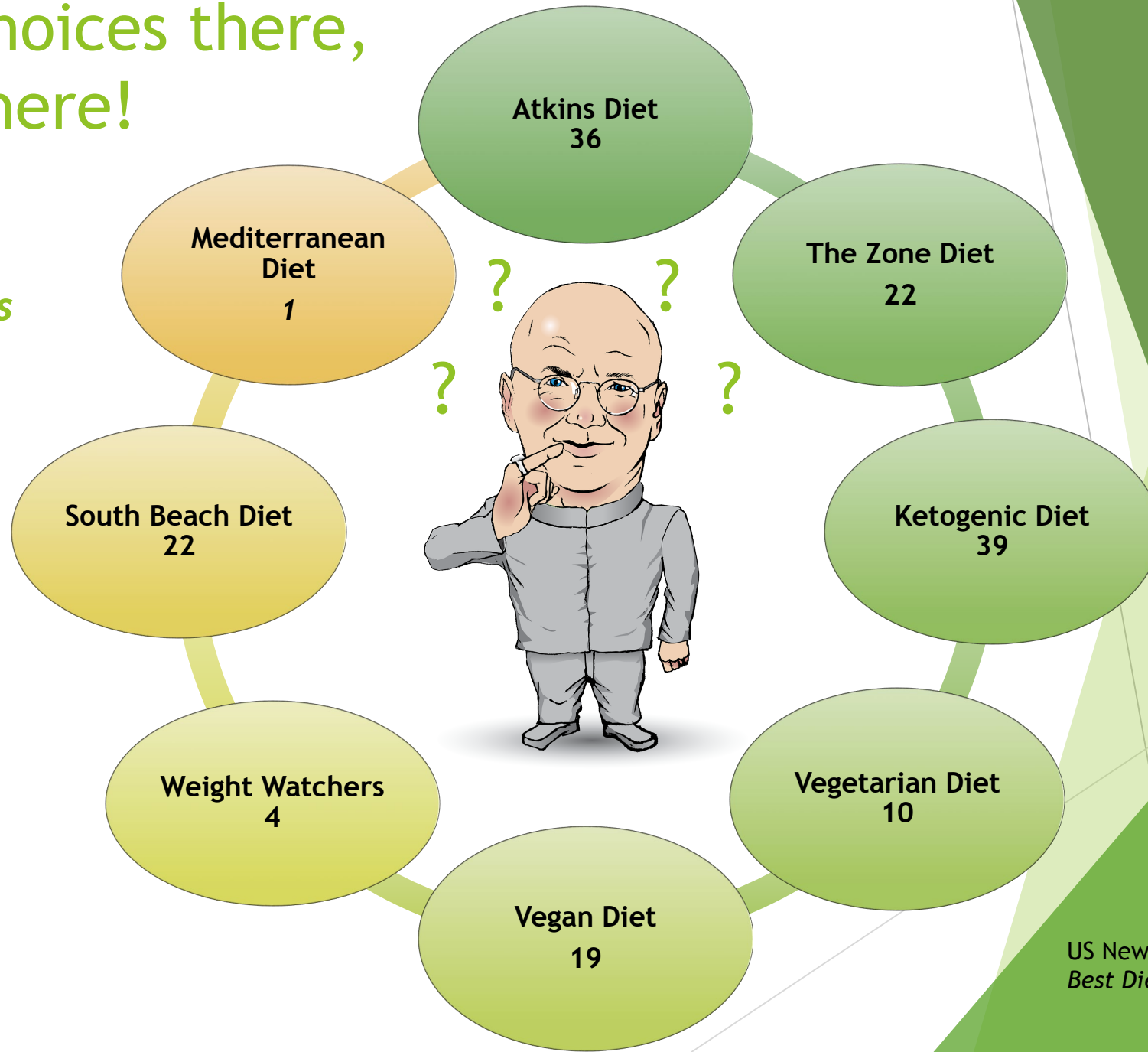
Most Popular “Diets”...



Medical New Today, 2017;
Most Popular Diets

Choices here, choices there, choices everywhere!

“Diet” Rankings:
+Short-Term Weight Loss
+Long-Term Weight Loss
+Positive Impact on
Overall Health



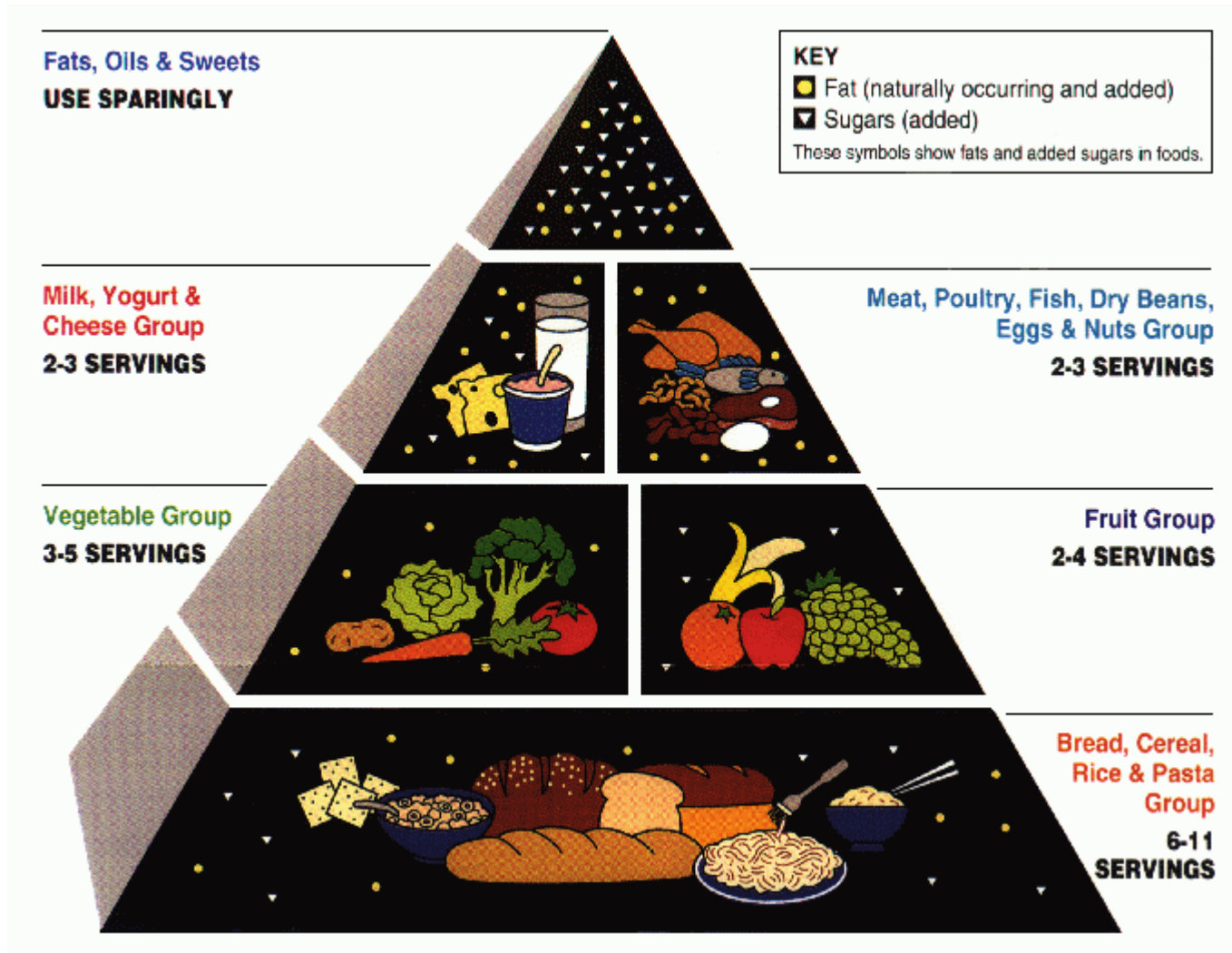
US News and World Report, 2018;
Best Diets Rankings

Making Healthier Choices



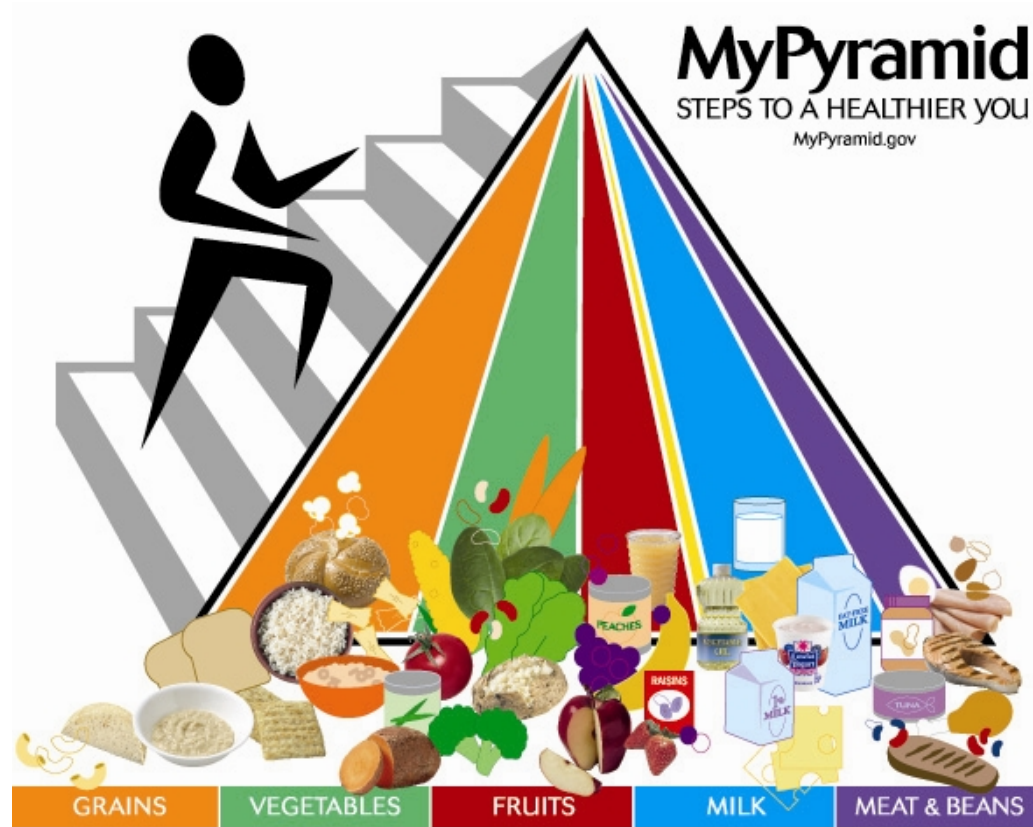
United States Department of Agriculture, 2018:
A Brief History of USDA Food Guides

Making Healthier Choices



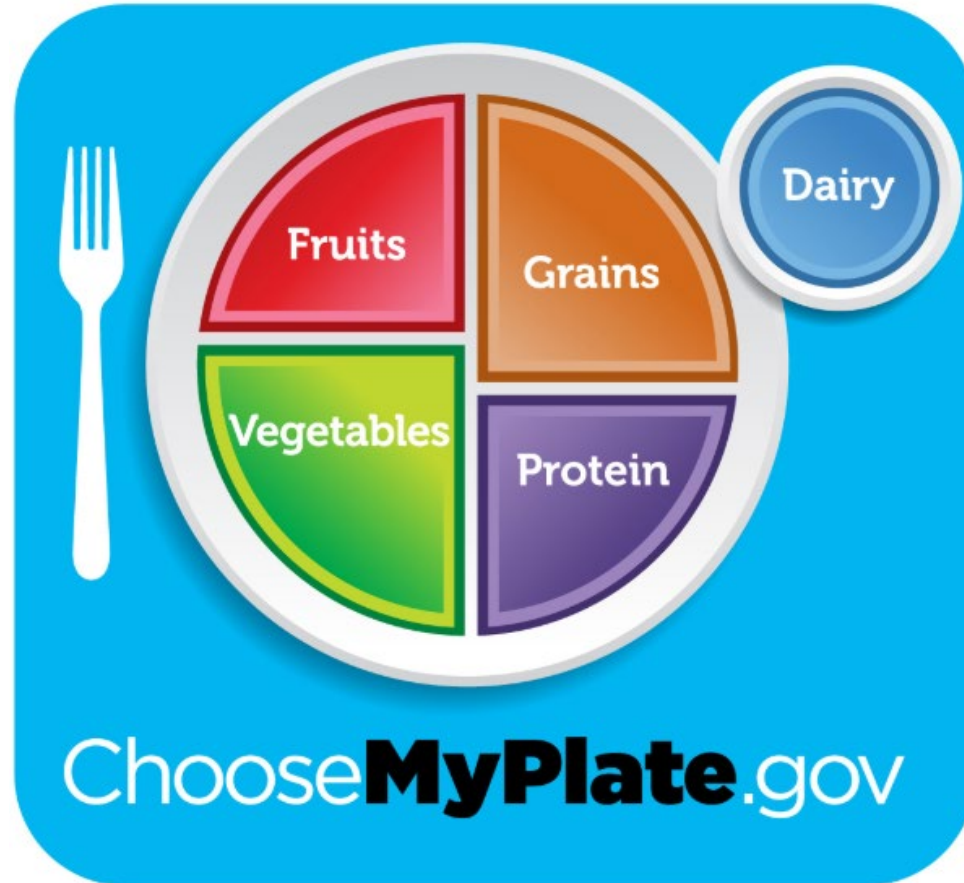
United States Department of Agriculture, 1992;
Dietary Guidelines for Americans - Food Guide Pyramid

Making Healthier Choices

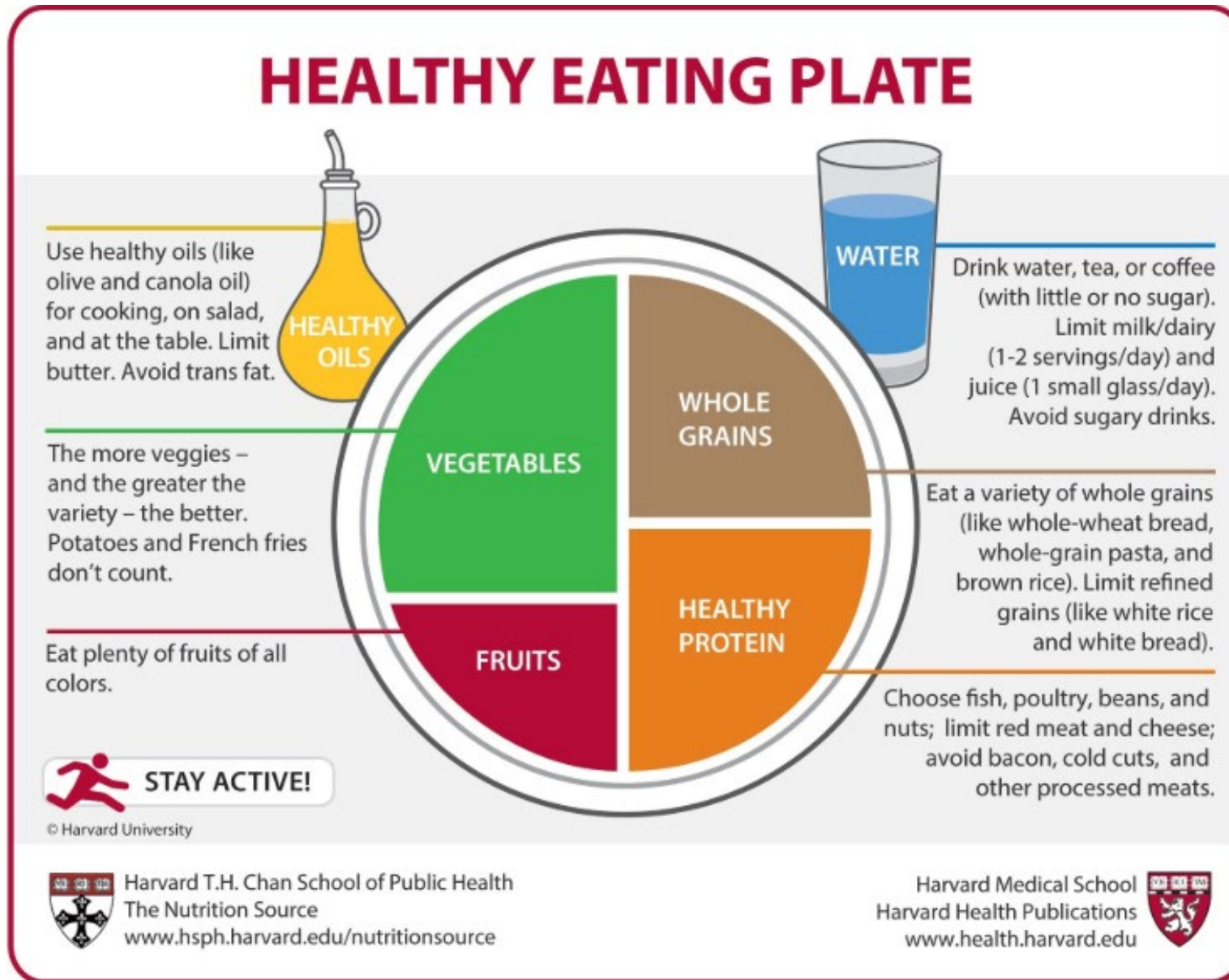


United States Department of Agriculture,
2005; *Dietary Guidelines for Americans -
My Pyramid*

Making Healthier Choices



Making Better Choices



Making Healthier Choices



Mayo Foundation for Medical Education and Research, 2017;
The May Clinic Diet

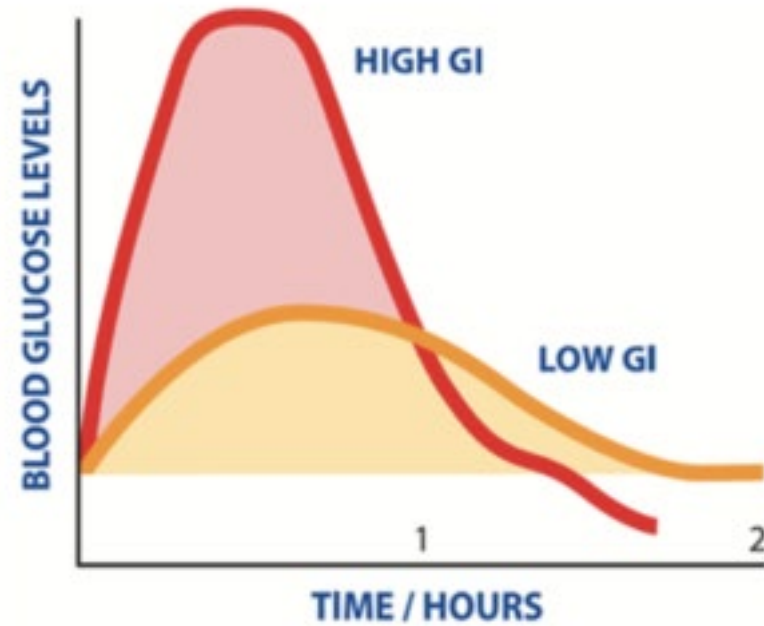
Making Healthier Choices



Making Better Choices -Carbohydrates

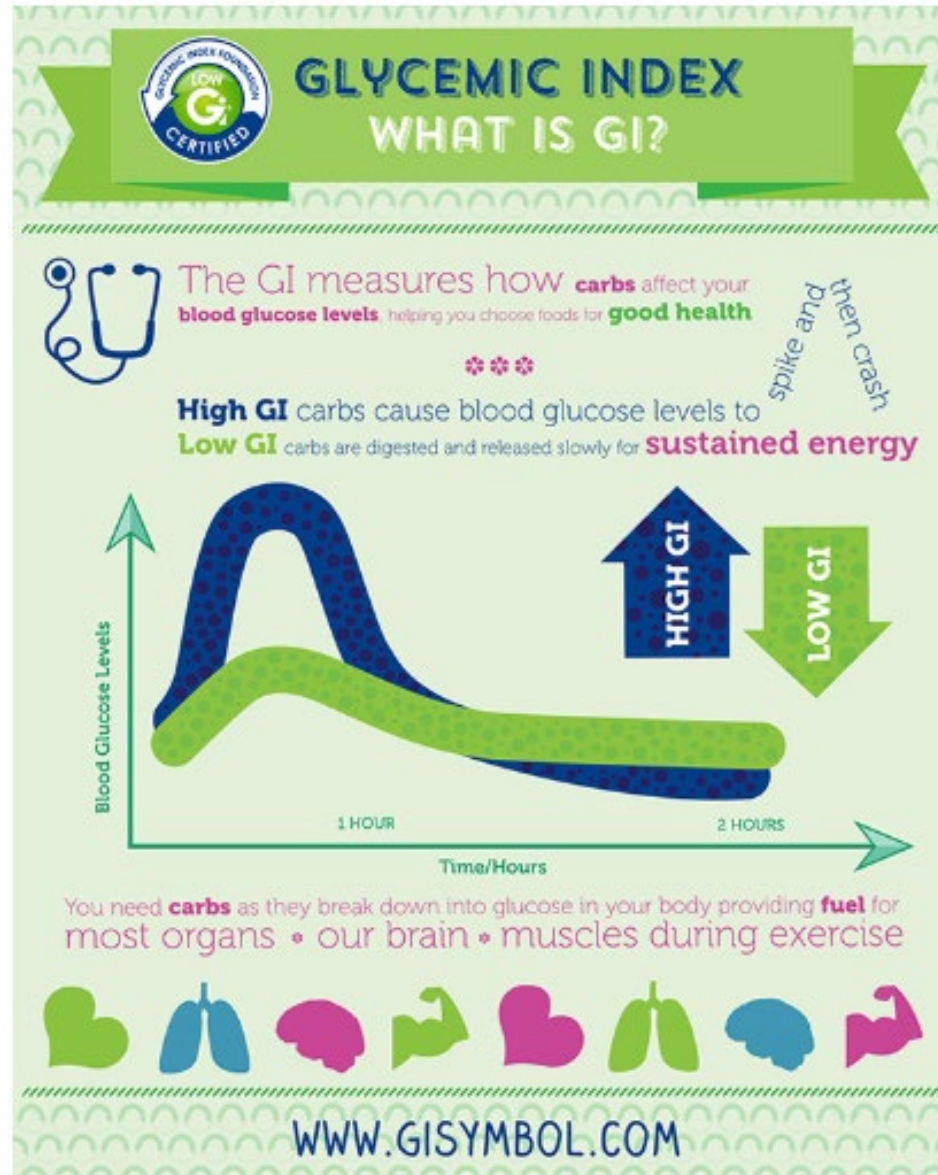
- Carbohydrates are one of the most important sources of energy for our bodies and are mainly found in plants (fruits, vegetables, grains & legumes) or in foods made from plant sources.
- Carbohydrates take two forms:
 - **starches** - such as potatoes, cereals, bread, and pasta
 - **sugars** - such as table sugar (sucrose), milk sugar (lactose), and fruit sugar (fructose).
- When digested, the starches and sugars in carbohydrates are broken down into millions of glucose molecules which are released into the bloodstream.
 - When blood glucose levels rise, your body releases a hormone called insulin, which allows glucose to enter cells.
 - Insulin also plays a key role in fat storage: when insulin levels rise, our cells are forced to burn glucose rather than fat.

Glycemic Index (GI)



The amount of carbohydrate in the reference and test food must be the same.

Glycemic Index (GI)



Glycemic Index (GI)



GLYCEMIC INDEX THE LOW DOWN

Social Media Toolkit

A healthy low GI diet is for everyone. It gives you sustained energy, helps you to manage your weight and reduces your risk of type 2 diabetes, heart disease and some cancers.

The glycemic index is based on strong scientific evidence and the Glycemic Index Foundation (GIF) is a not-for-profit health promotion charity that aims to educate people on its benefits. The GI Symbol program is run by the GIF to help people make healthy low GI choices easier because foods that carry the GI Symbol are required to meet strict nutrient criteria and have been tested at an accredited laboratory.

This information kit has been developed by the team at GIF to share accurate information on the benefits of a healthy low GI diet. We encourage you to use its content.

What is GI?

f Confused about what GI is? It's a tool that measures how carbs affect your blood glucose levels, helping you choose foods for sustained energy and good health. A quick & easy way to know if a food has been credibly tested and meets strict nutritional criteria is to look out for the Glycemic Index Foundation symbol on products. [#GISymbol www.gisymbol.com/glycemic-index](https://www.gisymbol.com/glycemic-index)

t What is GI? GI measures how carbs affect your blood glucose levels. [#GISymbol www.gisymbol.com/glycemic-index](https://www.gisymbol.com/glycemic-index)

What is GL?

f Want to know how to calculate the glycemic load of your meal? Multiply the GI value by the amount of carbs per serve and divide by 100. Aim to keep your daily load under 100. www.gisymbol.com/glycemic-load

t Calculate glycemic load by multiplying GI value by the amount of carbs per serve & dividing by 100. www.gisymbol.com/glycemic-load

Why go low?

f Choose healthy low GI foods for sustained energy and good health. High GI foods cause blood glucose levels to spike and crash, whereas low GI foods are released slowly. [#LowDownLowGI www.gisymbol.com/general-health](https://www.gisymbol.com/general-health)

t Going [#lowGI](https://www.gisymbol.com/top-tips-to-go-low-gi) helps you choose foods for sustained energy and good health. Get started: www.gisymbol.com/top-tips-to-go-low-gi [#GISymbol](https://www.gisymbol.com)



**GLYCEMIC INDEX
WHAT IS GI?**

The GI measures how **carbs** affect your blood glucose levels. **High GI** carbs cause blood glucose levels to spike and crash. **Low GI** carbs are digested and released slowly for **sustained energy**.

You need **carbs** as they break down into glucose in your body providing **fuel** for most organs + our brain + muscles during exercise.

www.gisymbol.com

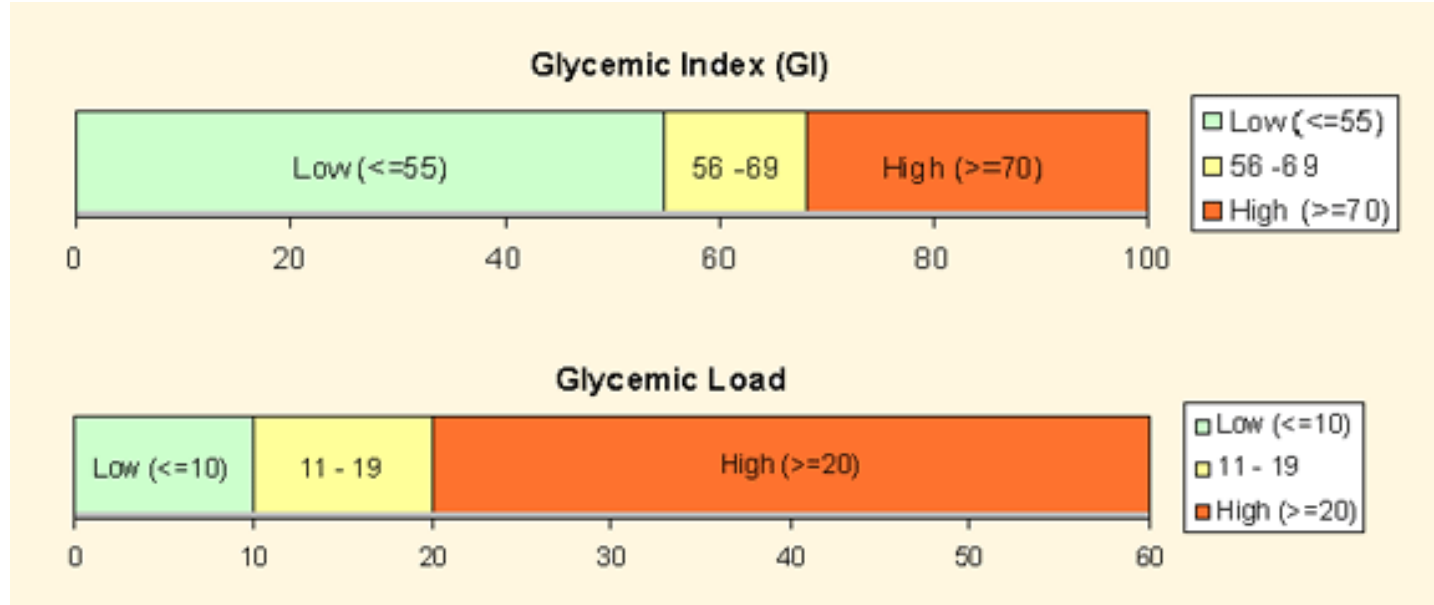
f Want the low down on what GI is and why going low GI is good for health? www.gisymbol.com/general-health

t Want the low down on what GI is and why going [#lowGI](https://www.gisymbol.com/#lowGI) is good for health? www.gisymbol.com/general-health

Glycemic Index (GI) vs Glycemic Load (GL)

- ❑ The glycemic index (GI) assigns a numeric score to a food based on how drastically it makes your blood sugar rise. Foods are ranked on a scale of 0 to 100, with pure glucose (sugar) given a value of 100. The lower a food's glycemic index, the slower blood sugar rises after eating that food. In general, the more cooked or processed a food is, the higher its GI, and the more fiber or fat in a food, the lower its GI.
- ❑ But the glycemic index tells just part of the story. What it doesn't tell you is how high your blood sugar could go when you actually eat the food. To understand a food's complete effect on blood sugar, you need to know both how quickly it makes glucose enter the bloodstream and how much glucose per serving it can deliver. A separate measure called the glycemic load does both — which gives you a more accurate picture of a food's real-life impact on your blood sugar. Watermelon, for example, has a high glycemic index (80). But a serving of watermelon has so little carbohydrate that its glycemic load is only 5.

GI and GL Rating of Foods



GI Rating of Foods

Glycemic Index

Low GI (<55), Medium GI (56-69) and High GI (70>)

Grains / Starchs		Vegetables		Fruits		Dairy		Proteins	
Rice Bran	27	Asparagus	15	Grapefruit	25	Low-Fat Yogurt	14	Peanuts	21
Bran Cereal	42	Broccoli	15	Apple	38	Plain Yogurt	14	Beans, Dried	40
Spaghetti	42	Celery	15	Peach	42	Whole Milk	27	Lentils	41
Corn, sweet	54	Cucumber	15	Orange	44	Soy Milk	30	Kidney Beans	41
Wild Rice	57	Lettuce	15	Grape	46	Fat-Free Milk	32	Split Peas	45
Sweet Potatoes	61	Peppers	15	Banana	54	Skim Milk	32	Lima Beans	46
White Rice	64	Spinach	15	Mango	56	Chocolate Milk	35	Chickpeas	47
Cous Cous	65	Tomatoes	15	Pineapple	66	Fruit Yogurt	36	Pinto Beans	55
Whole Wheat Bread	71	Chickpeas	33	Watermelon	72	Ice Cream	61	Black-Eyed Beans	59
Muesli	80	Cooked Carrots	39						
Baked Potatoes	85								
Oatmeal	87								
Taco Shells	97								
White Bread	100								
Bagel, White	103								



HealthJade, 2008; *International Tables of Glycemic Index and Glycemic Load*

GI and GL Rating of Foods

Food Values: Glycemic Index/Glycemic Load

	Low GI	Med GI	High GI
Low GL	All-bran cereal (8,42) Apples (6,38) Carrots (3,47) Peanuts (1,14) Strawberries (1,40) Sweet Corn (9,54)	Beets (5,64) Cantaloupe (4,65) Pineapple (7,59) Sucrose, i.e. table sugar (7,68)	Popcorn (8,72) Watermelon (4,72) Whole wheat flour bread (9,71)
Med GL	Apple juice (11,40) Bananas (12,52) Fettucine (18,40) Orange juice (12,50) Sourdough wheat bread (15,54)	Life Cereal (16,66) New potatoes (12,57) Wild rice (18,57)	Cheerios (15,74) Shredded wheat (15,75)
High GL	Linguine (23,52) Macaroni (23,47) Spaghetti (20,42)	Couscous (23,65) White rice (23,64)	Baked Russet potatoes (26,85) Cornflakes (21,81)

Source: Revised International Table of Glycemic Index (GI) and Glycemic Load (GL), *The American Journal of Clinical Nutrition*, July 2002

The Tortilla Dilemma!!

Corn, Wheat, or Flour??

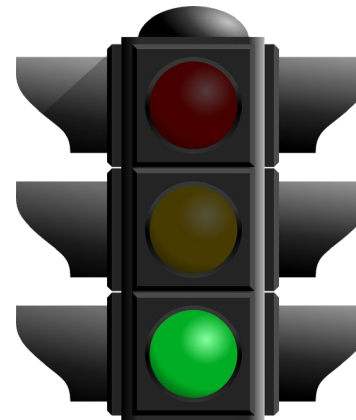
Food Item	Additional Food Items	Glycemic Index	Glycemic Load
Corn Tortilla	None	52	8
Corn Tortilla	Refried pinto beans and Tomato Sauce	39	9
Corn Tortilla	Fried, Potato, Tomato, Lettuce	78	11
Wheat Tortilla	None	30	8
Wheat Tortilla	Refried pinto beans and Tomato Sauce	28	5
Flour Tortilla	None*	30	11

http://care.diabetesjournals.org/content/diacare/suppl/2008/09/18/dc08-1239.DC1/TableA1_1.pdf

The complete list of the glycemic index and glycemic load for more than 1,000 foods can be found in the article "International tables of glycemic index and glycemic load values: 2008" by Fiona S. Atkinson, Kaye Foster-Powell, and Jennie C. Brand-Miller in the December 2008 issue of Diabetes Care, Vol. 31, number 12, pages 2281-2283.

Fiber here, fiber there, fiber everywhere...

- ▶ There are 2 different types of fiber -- soluble and insoluble. Both are important for health, digestion, and preventing diseases.
- ▶ **Soluble fiber** attracts water and turns to gel during digestion. This slows digestion. Soluble fiber is found in oat bran, barley, nuts, seeds, beans, lentils, peas, and some fruits and vegetables. It is also found in psyllium, a common fiber supplement. Some types of soluble fiber may help lower risk of heart disease.
- ▶ **Insoluble fiber** is found in foods such as wheat bran, vegetables, and whole grains. It adds bulk to the stool and appears to help food pass more quickly through the stomach and intestines.



Some things I have learned...

- ▶ GI can change with Processing:
 - ▶ Juice has higher GI value than the source fruit
 - ▶ Stone ground whole wheat bread has lower GI than whole wheat bread
 - ▶ Fried potato has higher GI than baked potato, mashed potato has high GI than baked potato
- ▶ GI can change with Storage Time:
 - ▶ The more ripe a fruit (to a lesser degree root vegetables) then the higher the GI value
- ▶ Medium and High GI foods are not off the table
 - ▶ These foods still contain essential vitamins, minerals, and other beneficial nutrients

Some things I have learned...

- ▶ GL can change by Quantity of Meal Options:
 - ▶ Portion sizes matter
- ▶ GL can change by the Quality of Meal Combination:
 - ▶ The overall GL of a meal can be lowered by combining lower GI foods with higher GI foods.
- ▶ GL can change your food source options:
 - ▶ From After, to During, to Before in terms of meal selection.
 - ▶ A long term quality nutritional lifestyle is your choice and, with some foundational knowledge, the decisions are clearer to make.

Some things I have learned...

- ▶ Mindset:
 - ▶ From After, to During, to Before in terms of meal selection.
 - ▶ A long term quality nutritional lifestyle is your choice and, with some foundational knowledge, the decisions are clearer to make.
- ▶ Impact Extends Beyond the Individual
 - ▶ On immediate family
 - ▶ On extended family
 - ▶ On friends
 - ▶ On the overall community...

Nutritional approaches that lead to long-term weight loss and establish a healthy pattern of eating.

