

# OVERWEIGHT AND UNDERNOURISHED

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What does nutrient density have to do with it?

# Current State of the Plate<sup>1</sup>

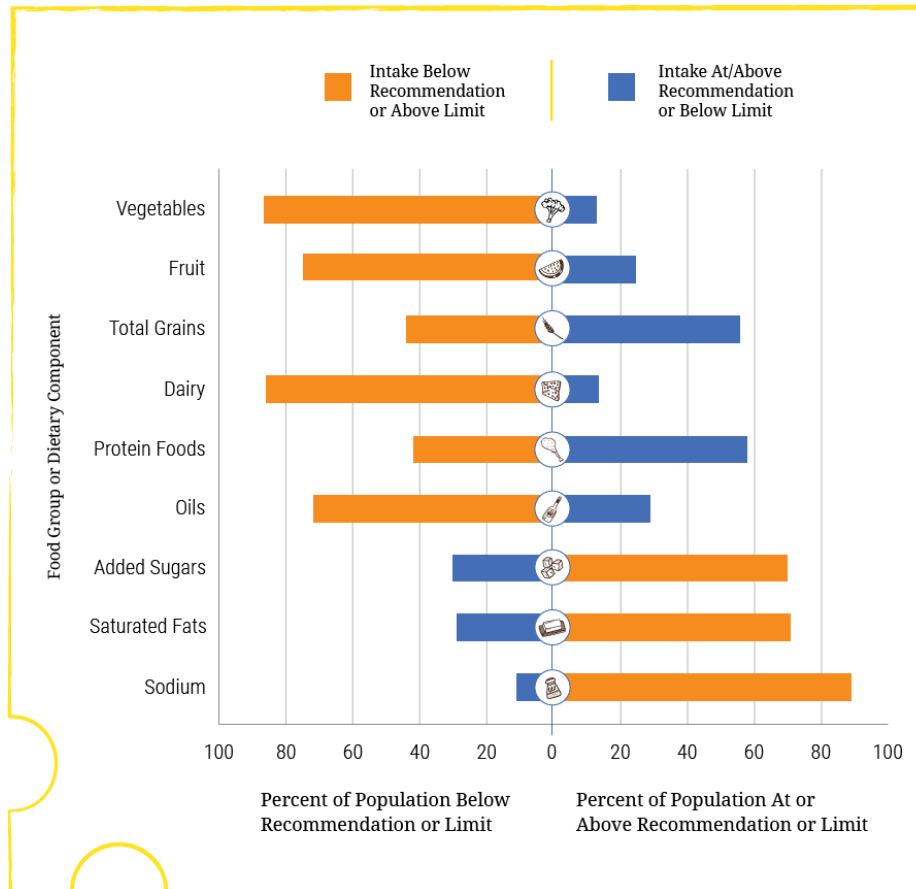


Figure 2-1 from the *Dietary Guidelines for Americans* is a bar graph indicating the percentage of the U.S. population ages 1 year and older with intakes below the recommendation or above the limit for different food groups and dietary components.

# Recommended State of the Plate<sup>2</sup>

	Macronutrient intake (possible range), g/day	Caloric intake, kcal/day
<b>Whole grains*</b>		
Rice, wheat, corn, and other†	232 (total gains 0-60% of energy)	811
<b>Tubers or starchy vegetables</b>		
Potatoes and cassava	50 (0-100)	39
<b>Vegetables</b>		
All vegetables	300 (200-600)	..
Dark green vegetables	100	23
Red and orange vegetables	100	30
Other vegetables	100	25
<b>Fruits</b>		
All fruit	200 (100-300)	126
<b>Dairy foods</b>		
Whole milk or derivative equivalents (eg, cheese)	250 (0-500)	153
<b>Protein sources‡</b>		
Beef and lamb	7 (0-14)	15
Pork	7 (0-14)	15
Chicken and other poultry	29 (0-58)	62
Eggs	13 (0-25)	19
Fish§	28 (0-100)	40
<b>Legumes</b>		
Dry beans, lentils, and peas*	50 (0-100)	172
Soy foods	25 (0-50)	112
Peanuts	25 (0-75)	142
Tree nuts	25	149
<b>Added fats</b>		
Palm oil	6.8 (0-6.8)	60
Unsaturated oils¶	40 (20-80)	354
Dairy fats (included in milk)	0	0
Lard or tallow	5 (0-5)	36
<b>Added sugars</b>		
All sweeteners	31 (0-31)	120





<https://www.enkivillage.org/2500-calorie-meal-plan.html>



[@UnosChicagoGrill/Twitter](https://twitter.com/UnosChicagoGrill)



<https://www.eatthis.com/restaurant-menu-worst-options/>

# What is “Processed Food”<sup>3</sup>?



Bagged Spinach  
Cut Vegetables  
Roasted Nuts

Canned Tomatoes  
Frozen Fruit  
Canned Tuna  
Yogurt

Crackers  
Granola  
Deli meats

Frozen pizzas  
Snacks  
Desserts



# Current Health of Americans

- Diseases associated with unhealthy diets and overconsumption account for 40% of the global burden of disease<sup>5</sup>
  - There has been a shift from diseases associated with infection and underconsumption to those associated with unhealthy diets and overconsumption.

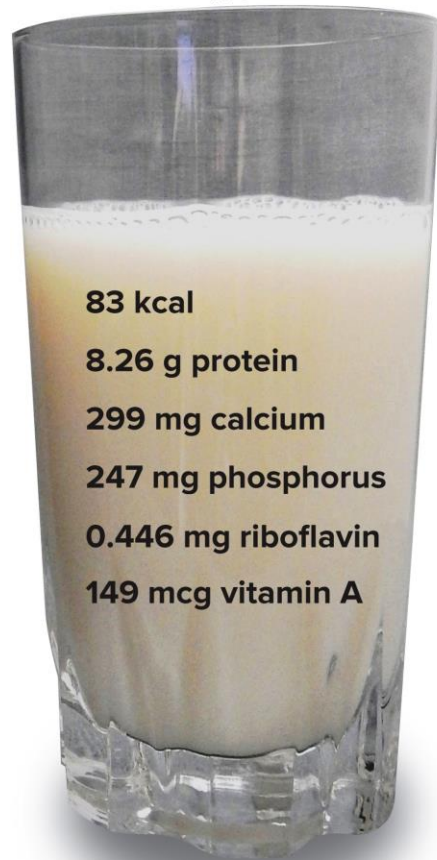
Noncommunicable  
diabetes  
cancers  
disease  
chronic-respiratory  
Cardiovascular

# How can we be overweight and undernourished?

- MAL\*NU\*TRI\*TION
  - Lack of proper nutrition, caused by not having enough to eat, not eating enough of the right things, or being unable to use the food that one does eat. --Definition from the Oxford English Dictionary
- Diets that are high in calories and low in nutrients
  - May be most affordable and available

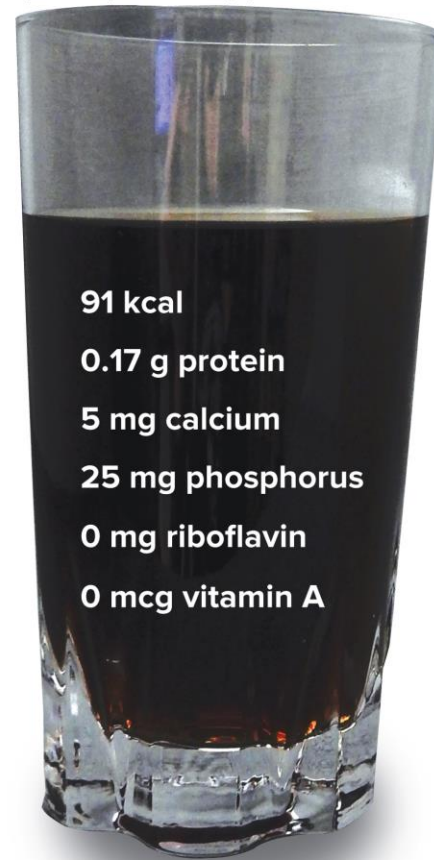
# Why Focus on Nutrient Density?

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**83 kcal**  
**8.26 g protein**  
**299 mg calcium**  
**247 mg phosphorus**  
**0.446 mg riboflavin**  
**149 mcg vitamin A**

8 fluid ounces  
Fat-free milk



**91 kcal**  
**0.17 g protein**  
**5 mg calcium**  
**25 mg phosphorus**  
**0 mg riboflavin**  
**0 mcg vitamin A**

8 fluid ounces  
Sugar-sweetened soft drink

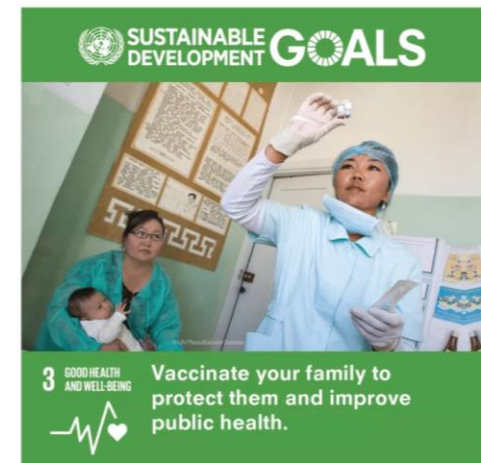


# What Is Being Done?

- UN Sustainable Development Goals<sup>7</sup>
  - Target 3.4: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
- Healthy People 2020<sup>8</sup>
  - Goal: Promote health and reduce chronic disease risk through consumption of healthful diets and achievement and maintenance of healthy body weights.



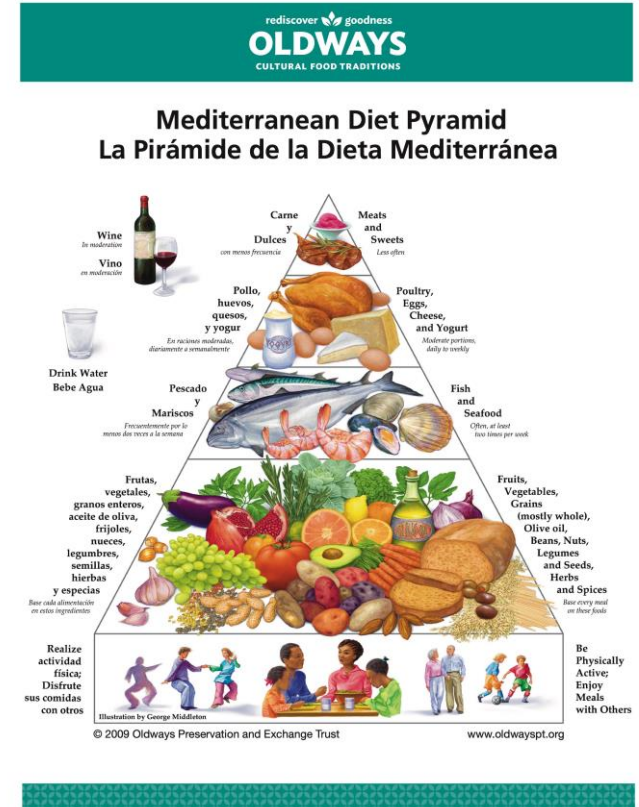
Goal 2: Zero Hunger



Goal 3: Good Health and Well-Being

# What can you do?

- Shifting from a westernized dietary pattern to one that is more similar to a Mediterranean diet reduces risk of diabetes by 7%, and of heart disease by 10%, and total mortality by 8%<sup>5</sup>.
- Pescetarian, vegetarian, and vegan diets also provide health benefits relative to westernized dietary patterns



# Common Foods and Flavors of the Mediterranean Diet<sup>9</sup>

<b>Vegetables &amp; Tubers</b>	Artichokes, Arugula, Beets, Broccoli, Brussels Spouts, Cabbage, Carrots, Celery, Celeriac, Chicory, Collard Cucumber, Dandelion Greens, Eggplant, Fennel, Kale, Leeks, Lemons, Lettuce, Mache, Mushrooms, Mustard Greens, Nettles, Okra, Onions, (red, sweet, white) Peas, Peppers, Potatoes, Pumpkin, Purslane, Radishes, Rutabega, Scallions, Shallots, Spinach, Sweet Potatoes, Turnips, Zucchini
<b>Fruits</b>	Avocados, Apples, Apricots, Cherries, Clementines, Dates, Figs, Grapefruit, Grapes, Oranges, Melons, Nectarines, Olives, Peaches, Pears, Potatoes, Pomegranates, Strawberries, Tangerines, Tomatoes
<b>Grains</b>	Breads, Barley, Buckwheat, Bulgur, Couscous, Durum, Farro, Millet, Oats, Polenta, Rice, Wheatberries
<b>Fish &amp; Seafood</b>	Abalone, Cockles, Clams, Crab, Eel, Flounder, Lobster, Mackerel, Mussels, Octopus, Oysters, Salmon, Sardines, Sea Bass, Shrimp, Squid, Tilapia, Tuna, Whelk, Yellowtail,
<b>Poultry, Eggs, Cheese, &amp; Yogurt</b>	Chicken, Duck, Guinea Fowl Eggs (Chicken, Quail, and Duck) Cheeses (Examples Include: Brie, Chevre, Corvo, Feta, Haloumi, Manchego, Parmigiano-Reggiano, Pecorino, Ricotta) Yogurt, Greek Yogurt
<b>Nuts, Seeds, &amp; Legumes</b>	Almonds, Beans (Cannellini, Chickpeas, Fava, Kidney, Green), Cashews, Hazelnuts, Lentils, Pine Nuts, Pistachios, Sesame Seeds (Tahini), Split Peas, Walnuts
<b>Herbs &amp; Spices</b>	Anise, Basil, Bay Leaf, Chiles, Clove, Cumin, Fennel, Garlic, Lavender, Marjoram, Mint, Oregano, Parsley, Pepper, Pul Biber, Rosemary, Sage, Savory, Sumac, Tarragon, Thyme, Zatar
<b>Meats &amp; Sweets</b>	Pork, Beef, Lamb, Mutton, Goat Sweets (Examples include: Baklava, Biscotti, Creme Caramel, Chocolate, Gelato, Fruit Tarts, Kunefe, Lokum, Mousse Au Chocolat, Sorbet, Tiramisu)
<b>Water &amp; Wine</b>	Drink Plenty Of Water Wine In Moderation

# THANK YOU

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# References

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8. National Center for Health Statistics. Chapter 29: Nutrition and Weight Status. *Healthy People 2020 Midcourse Review*. Hyattsville, MD. 2016.
9. For a wealth of healthy eating information visit: <https://oldwayspt.org/traditional-diets/mediterranean-diet>