

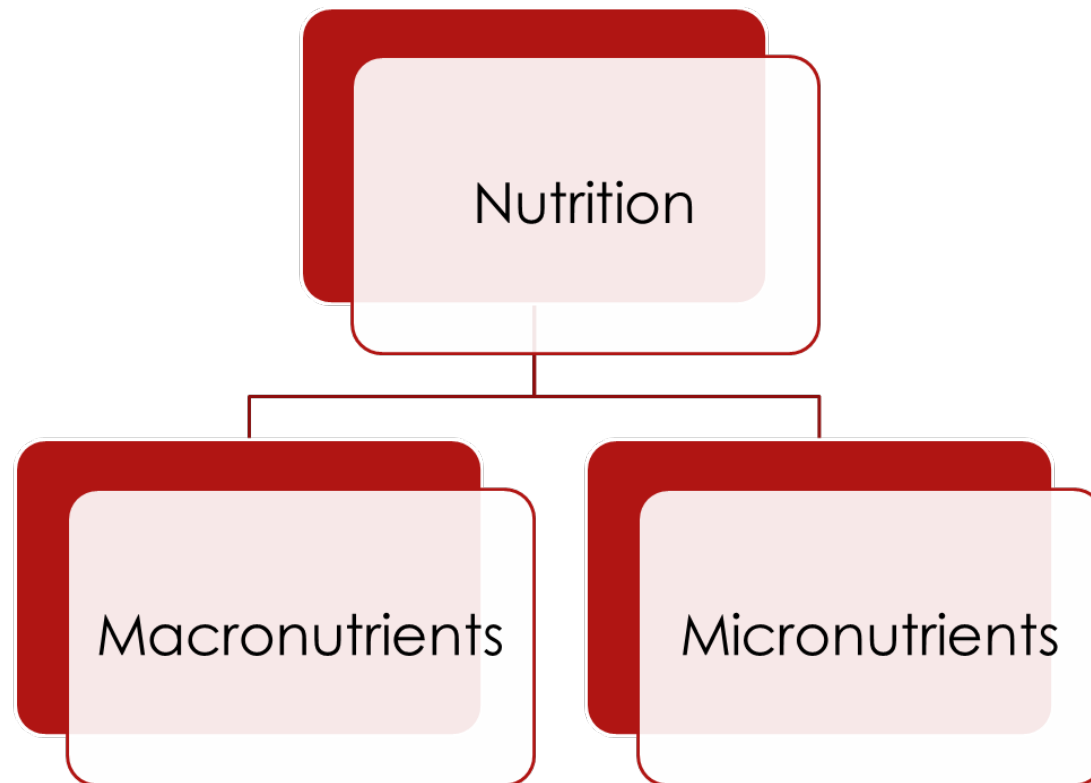
Nutrition Tips For Healthy Eating

USPHS Wellness Champions



Nutrition Basics

Macronutrients vs Micronutrients



Macronutrients

What are they?

- Proteins
- Carbohydrates
- Lipids
- Alcohol?

WHAT ARE MACRONUTRIENTS?

THERE ARE 4 CATEGORIES OF MACRONUTRIENTS:

CARBOHYDRATE



PROTEIN



FAT



ALCOHOL



dreamstime.com

ID 134645182 © Anna Bergbauer



Protein

- Large molecules composed of amino acids
- 4kcal of energy per gram
- Amino acids help synthesize enzymes, hormones, antibodies, cytokines, transporters and neurotransmitters

- Protein malnutrition

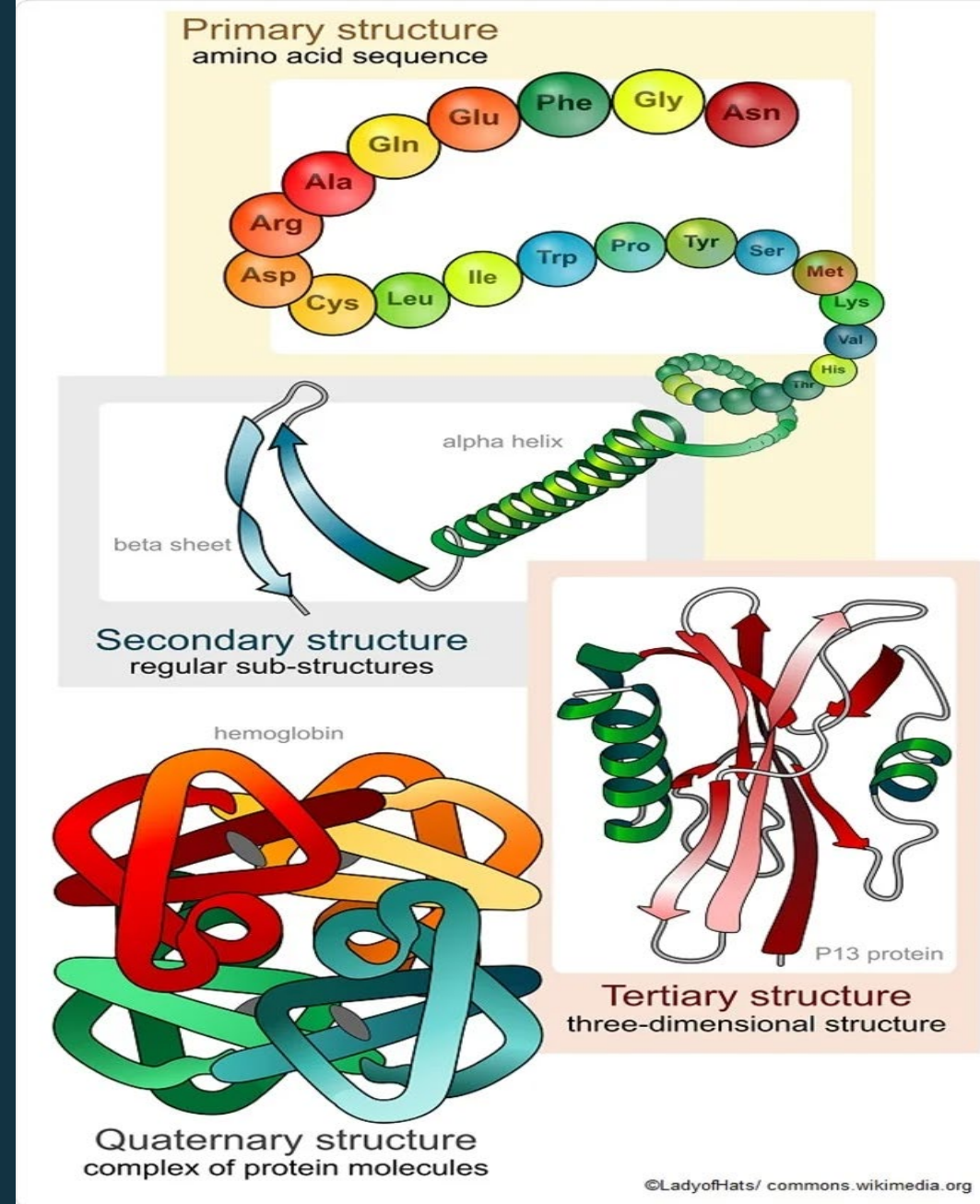
Stunting growth

Anemia

Impaired nutrient absorption

Muscle wasting

Loss of bone mass



Protein sources

What are some examples of foods that contain protein?

- Meats and Dairy
 - Chicken, beef, turkey, fish, eggs, milk, yogurt, cheese
- Beans, nuts and seeds
 - Black and kidney beans, pintos, lentils, chickpeas, peanuts, almonds
- Soy products
 - Soy nuts, soy milks, tofu, soybeans



Carbohydrates

Carbs are the enemy.....right?

- Important dietary energy source
- 4kcal of energy per gram
- Promotes glycogen storage
- Fiber is a non-digestible carbohydrate
 - Promotes satiety
 - Improves gastrointestinal function
 - Reduces cholesterol levels



Carbohydrate sources

Where are the carbs?

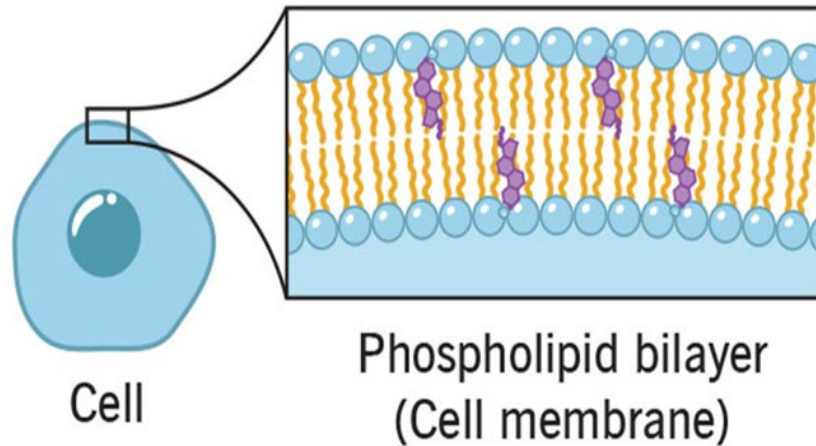
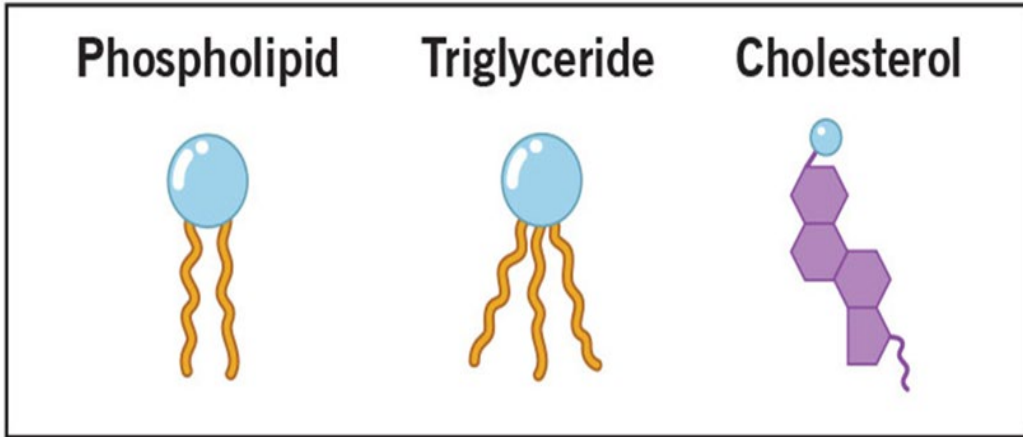
- Whole grains
 - Whole grain bread, quinoa, brown rice
- Fruits and Veggies
 - Corn, peas, banana, apple, grapes, pineapples
- Fiber-rich
 - Oats, barley, brown rice, buckwheat, legumes, berries

carb counting guide

 WATERMELON 1 cup cubed (152g) 11G	 APPLE 1 medium (182g) 25G	 PINEAPPLE 1 cup chopped (165g) 22G	 BANANA 1 medium (118g) 27G	 ORANGE 1 large (184g) 22G
 CUCUMBER 1 cup slices (104g) 4g	 BROCCOLI 1 cup chopped (91g) 6g	 EGGPLANT 1 cup cubed (82g) 5g	 ONION 1 medium (110g) 10g	 POTATO 1 medium (213g) 37g
 BURGER 1 big mac 29g	 FALAFEL 1 sandwich 54g	 BIBIMBAP large bowl 89g	 PIZZA 1 slice of 12" pie 24g	 FRIED EGG 1 large (46g) .5g
 MUFFIN 1 medium (113g) 61g	 CINNAMON ROLL 1 bun (65g) 32g	 ICED DONUT 1 donut (100g) 30g	 CHOCOLATE CAKE 1 slice (64g) 34g	 BAGEL 1 bagel (108g) 60g
 BLACK COFFEE 1 serving (6 oz) 0g	 RED WINE 1 glass (5 oz) 4g	 BUBBLE TEA unsweetened (16 oz) 33g	 BEER 1 can (12 oz) 12g	 FRUIT SMOOTHIE 1 serving (16 oz) 49g



Lipids



Lipids or Dietary Fats

What is fat even for?

- Most energy dense macronutrient
- 9kcal of energy per gram
- Essential for
 - Sex hormone production
 - Maintenance of cellular structure
 - Energy storage
 - Regulation of body temperature
 - Protection from physical trauma
 - Absorption of fat-soluble vitamins



Fat Sources

Where are the fats?

- Dairy and fruits
 - Eggs, milk, butter, cheese, olives, avocados
- Meats and animal fats
 - Salmon, sardines, beef, pork, lamb
- Nuts and seed oils
 - Walnuts, almonds, peanuts, chia seeds, sunflower seeds, olive oil



Micronutrients

Vitamins

- “Essential” organic nutrients
- Classified according to solubility
- Fat soluble – Vitamins A, D, E, K
- Water soluble – B vitamins and vitamin C

Minerals

- “Essential” inorganic nutrients
- Calcium
- Phosphorus
- Potassium
- Sodium
- Chloride
- Magnesium
- Iron
- Zinc
- Copper
- Iodine



Micronutrients



Types of Micronutrients



Water-soluble vitamins

Vitamin C, Vitamin B



Fat-soluble vitamins

Vitamin A, Vitamin D
Vitamin E, Vitamin K



Macrominerals

Calcium, Phosphorus
Magnesium, Sodium



Trace minerals

Iron, Zinc, Copper, Iodine
Selenium, Manganese



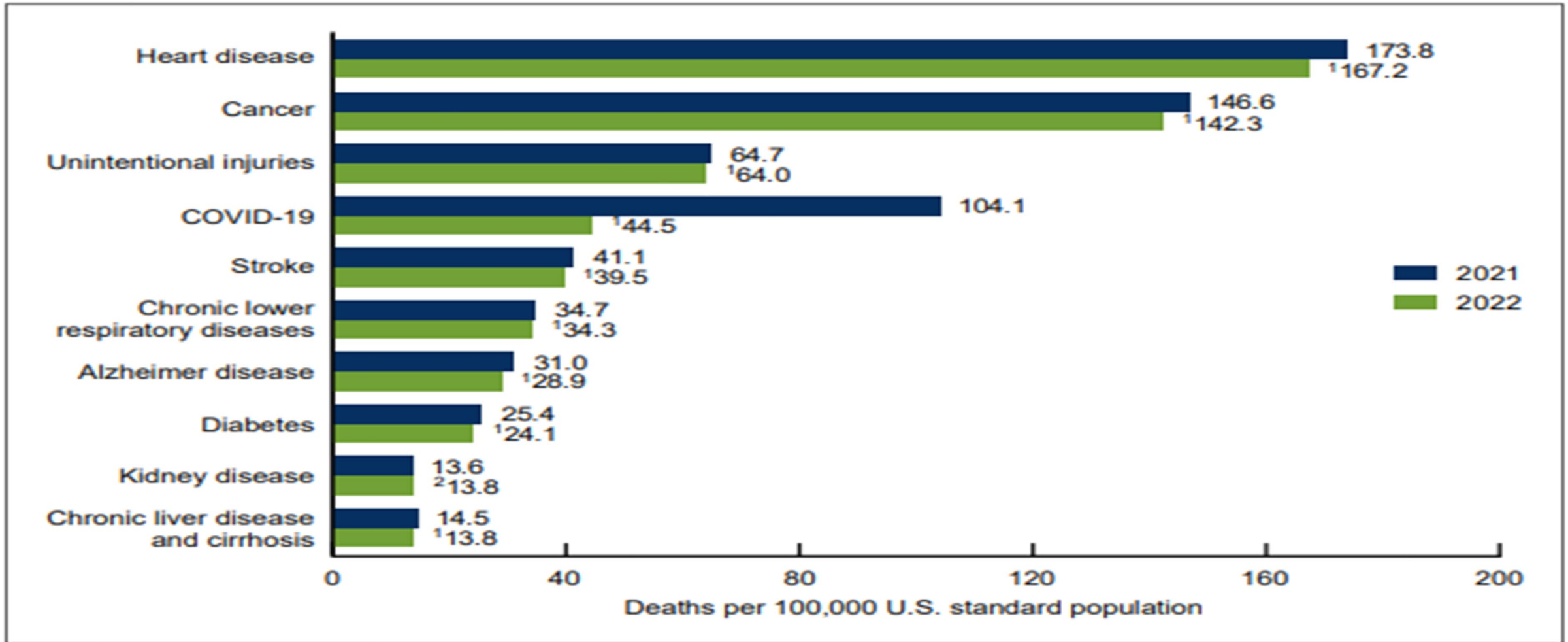
Risk Factors and Chronic Disease

	Obesity	Atherosclerosis	Stroke	Hypertension	Diabetes (type 2)	Cancers
Dietary Risk Factors						
Diets high in added sugars	✓					
Diets high in salty or pickled foods				✓		✓
Diets high in saturated and/or <i>trans</i> fats	✓	✓	✓	✓	✓	✓
Diets low in fruits, vegetables, and other foods rich in fiber and phytochemicals	✓	✓	✓	✓	✓	✓
Diets low in vitamins and/or minerals		✓	✓	✓		✓
Excessive alcohol intake	✓	✓	✓	✓		✓
Other Risk Factors						
Age		✓	✓	✓	✓	✓
Environmental contaminants						✓
Genetics	✓	✓	✓	✓	✓	✓
Sedentary lifestyle	✓	✓	✓	✓	✓	✓
Smoking and tobacco use		✓	✓	✓		✓
Stress		✓	✓	✓		

Resource: Whitney, Eleanor Noss. *Understanding Nutrition*. Stamford, CT :Cengage Learning, 2022.



Figure 4. Age-adjusted death rate for the 10 leading causes of death in 2022: United States, 2021 and 2022



¹Statistically significant decrease from 2021 to 2022 ($p < 0.05$).

²Statistically significant increase from 2021 to 2022 ($p < 0.05$).

NOTES: A total of 3,279,857 resident deaths were registered in the United States in 2022. The 10 leading causes of death accounted for 72.3% of all U.S. deaths in 2022. Causes of death are ranked according to number of deaths. Rankings for 2021 data are not shown. Data table for Figure 4 includes the number of deaths for leading causes and the percentage of total deaths. Access data table for Figure 4 at: <https://www.odc.gov/nchs/data/databriefs/db492-tables.pdf#4>.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.



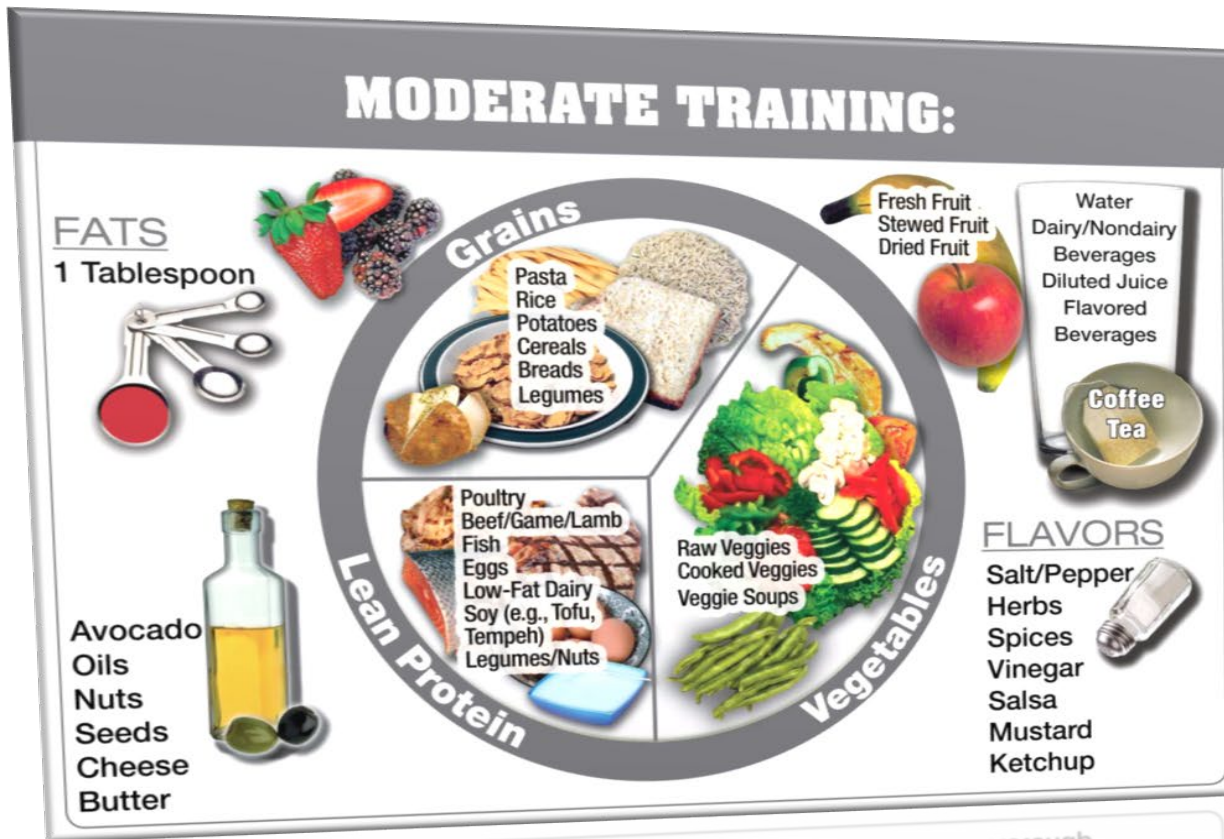
Well Balanced Diet: Your Plate

What should your plate look like?

- Examples from the US Olympic and Paralympic nutrition page
- Based on intensity of training
- www.usopc.org/nutrition



Well Balanced Diet: Your Plate



MyPlate Kitchen

www.myplate.gov/myplate-kitchen

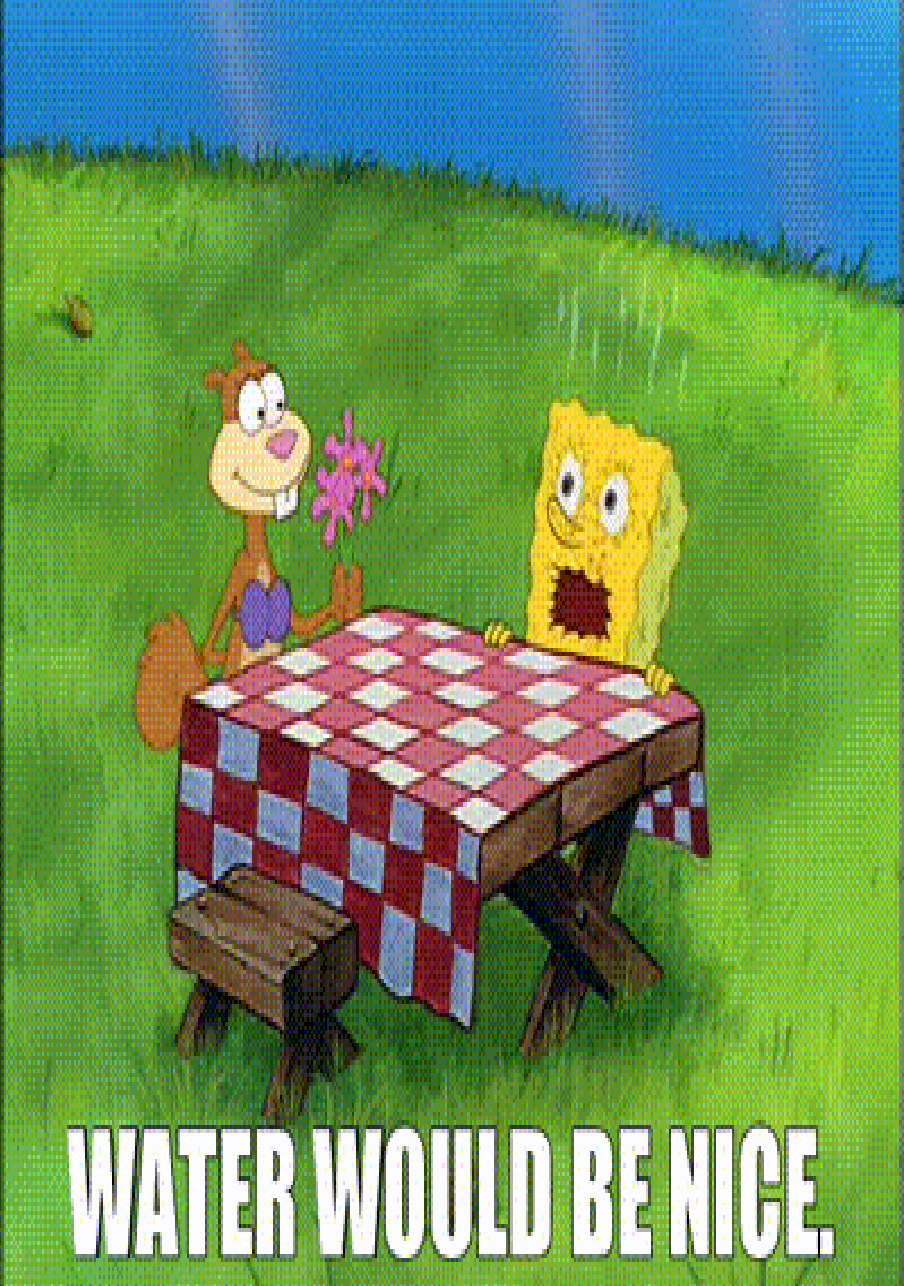
- Comprehensive search filters such as program area, cooking equipment, cuisine as well as nutrition related messages to help users find recipes according to personal interest.
- Browse related to total cost
- Save your favorite recipes with an e-Auth account or add them to a personal online cookbook

The screenshot displays the MyPlate Kitchen website interface. At the top, it features the USDA MyPlate logo and navigation links such as 'HOME', 'EAT HEALTHY', 'LIFE STAGES', 'RESOURCES', 'PROFESSIONALS', and 'MYPLATE KITCHEN'. A search bar is visible on the right. Below the navigation, there are tabs for 'Recipes', 'My Saved Recipes', 'My Cookbooks', 'Recipe Videos', and 'Recipe Resources'. The main content area shows a search results page with a left sidebar for refining search filters. The filters include Program, Course, Nutrition Focus - Food Groups, Nutrition Focus - Nutrients, Food Groups, Cooking Equipment, Cuisine, and Total Cost. The search results display three recipes: '20-Minute Chicken Creole', '2-Step Chicken', and '3-Can Chili'. Each recipe entry includes a thumbnail image, a title, a brief description, a star rating, and a cost indicator (e.g., '\$\$\$\$').

Let's talk about water

- Water is vital to our survival and makes up to 50-70% of our body weight
- Water helps the body in many ways
 - Temperature regulation
 - Waste removal
 - Joint protection
 - Tissue protection
 - Nutrient delivery
 - Digestion
 - Urinary tract health
 - Exercise performance





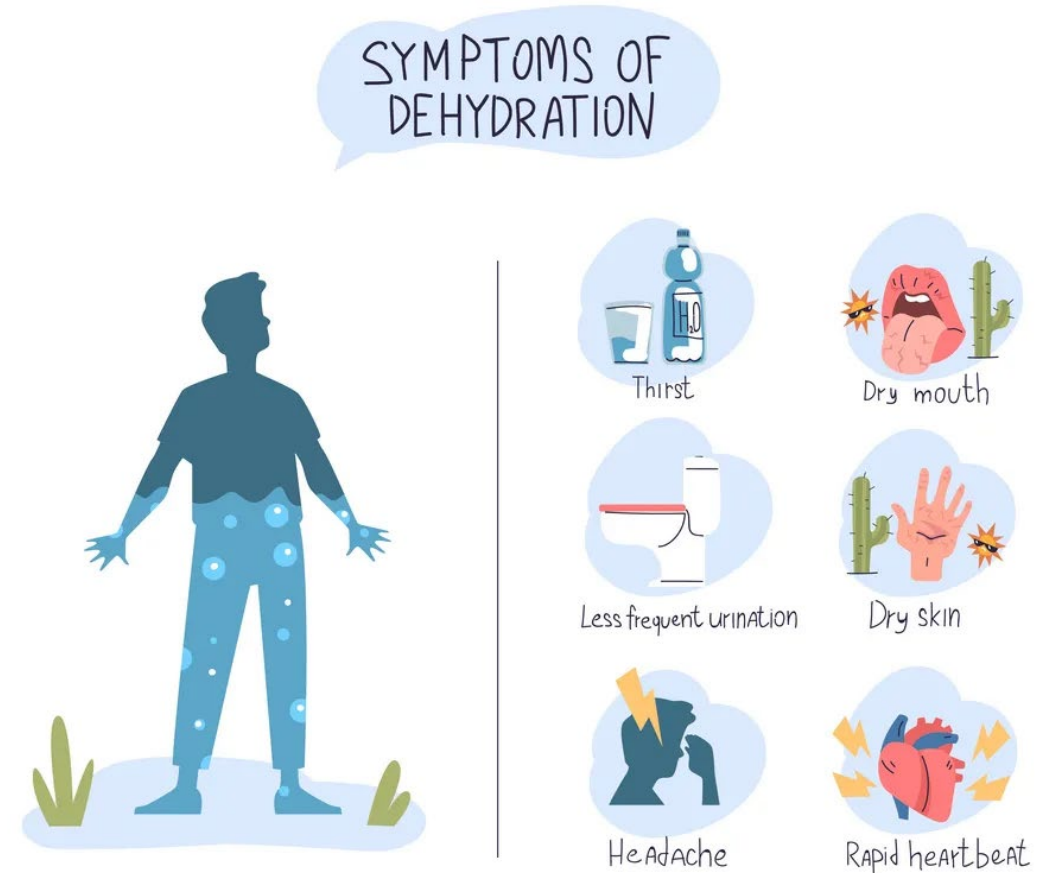
What happens when you don't drink enough water?

- Dehydration
 - Using more fluid than you take in
- Causes of dehydration
 - Vomiting and diarrhea
 - Not drinking enough fluid
 - Sweating in excess
 - Fever
 - Urinating too much
 - Taking certain medications



Symptoms of Dehydration

- Feeling thirsty
- Dark yellow, strong-smelling pee
- Peeing less than usual
- Feeling dizzy or lightheaded
- Feeling tired
- Dry mouth, lips and tongue
- Sunken eyes
- Fatigue and confusion



VectorStock®

VectorStock.com/48004240



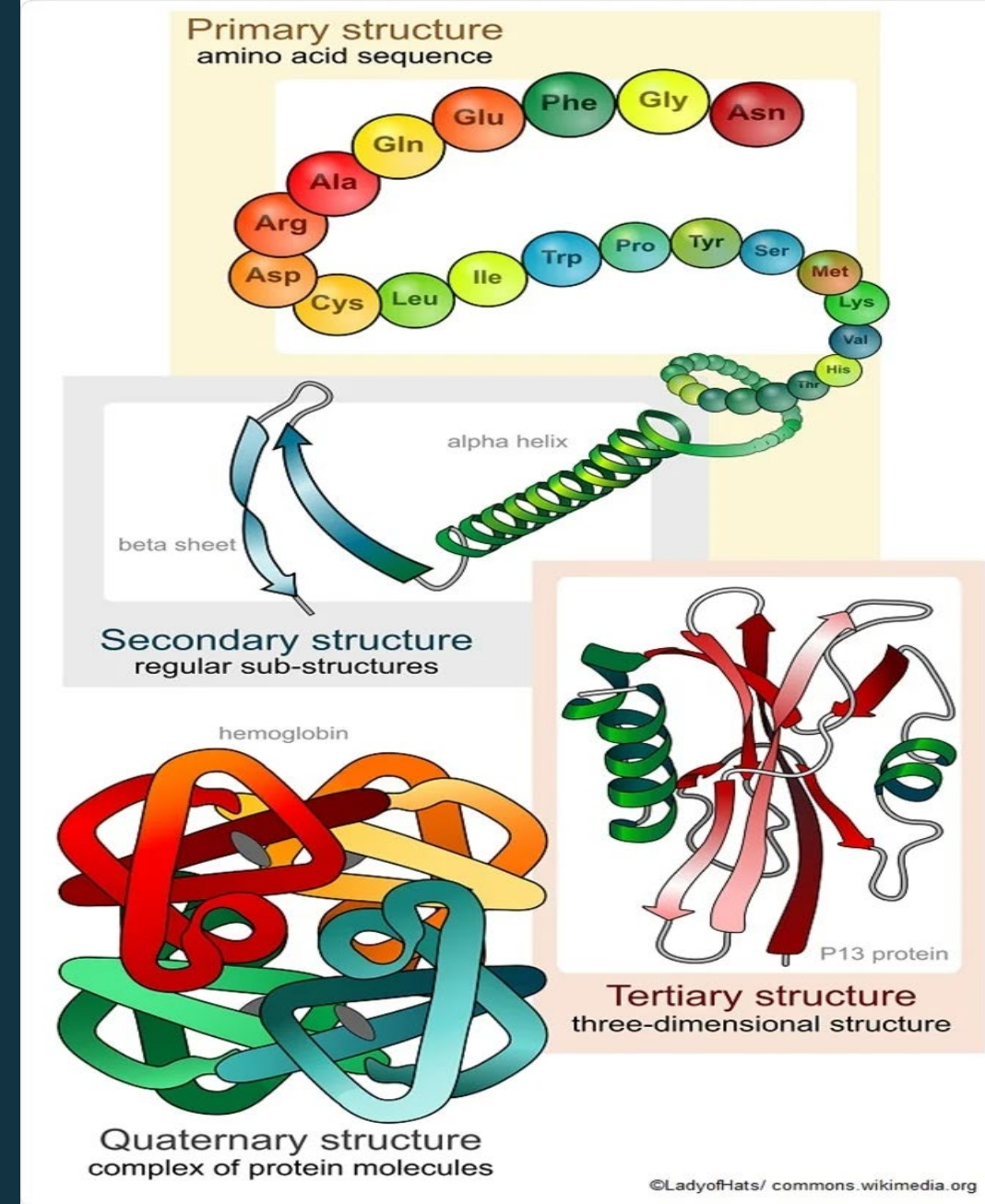
How much water should you drink?

- Individual water needs depend on many factors, including your health, age, how active you are and where you live
- You lose water through your breath, perspiration, urine and bowel movements
- The U.S. National Academies of Sciences, Engineering and Medicine determined that an adequate daily fluid intake is 3.7L for men and 2.7L for women



Water and weight loss

- Water can naturally suppress appetite
- Stimulated metabolism
- Reduce your overall liquid calorie intake
- Helps the body remove waste
- The body needs water to burn fat
- May improve motivation and reduce stress



Mindful eating



- According to a 2011 report from the U.S. Department of Agriculture, the average American spends more than 2.5 hours a day eating, but more than half the time, we're doing something else too



- Working, driving, reading, watching TV or fiddling with an electronic device, we're not fully aware of what we are eating or how much



- Mindless eating or a lack of awareness of the food we're consuming can lead to overeating and weight gain



Mindful eating

What is it?

- Mindfulness, a practice based on Zen Buddhism, has become popular as a way of self-calming and as a method of changing eating behaviors
- Mindfulness is a conscious awareness approach to food that focuses on individuals' sensual awareness of the food and their experience of the food
- It is not about rules or guidelines but about the individual experience changing one's overall approach to eating



Mindful eating

- Eating slow without distractions
- Listening to physical hunger cues
- Distinguish between true hunger and non-hunger triggers
- Engage your senses
- Learn to cope with guilt and anxiety around food
- Eat to maintain overall health and well-being
- Appreciate your food

6 Ways to Practice Mindful Eating

Mindless Eating

- 1 Eating past full and ignoring your body's signals
- 2 Eating when emotions tell us to eat (i.e., sad, bored, lonely)
- 3 Eating alone, at random times and places
- 4 Eating foods that are emotionally comforting
- 5 Eating and multitasking
- 6 Considering a meal an end product

Mindful Eating

- Listening to your body and stopping when full
- Eating when our bodies tell us to eat (i.e., stomach growling, energy low)
- Eating with others, at set times and places
- Eating foods that are nutritionally healthy
- When eating, just eating
- Considering where food comes from

List created by Christopher Willard PsyD



Nutrition Champions

Who are we and how can you find us?

- CDR Kristen Maves, PharmD, BCPS (IHS)
- CDR Kevan Lee-Steele, PharmD, MPH, BCACP, CCHP (DHS)
- LT Mike Stablein, PT, DPT, RDN (BOP)
- LT Nicole Snyder, BSN, RN (BOP)
- LT Olufolake Ogunyemi, MSW, LCSW-C, LICSW, BCD (ACF)



ADMINISTRATION FOR
CHILDREN & FAMILIES

Office of Family Assistance | 330 C Street, S.W., Washington, DC 20201
www.acf.hhs.gov/ofa



COMMISSIONED CORPS
OF THE U.S. PUBLIC HEALTH SERVICE

Questions and Answers



COMMISSIONED CORPS
OF THE U.S. PUBLIC HEALTH SERVICE

References

- Espinosa-Salas S, Gonzalez-Arias M. Nutrition: Macronutrient Intake, Imbalances, and Interventions. [Updated 2023 Aug 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK594226/>
- Espinosa-Salas S, Gonzalez-Arias M. Nutrition: Micronutrient Intake, Imbalances, and Interventions. [Updated 2023 Sep 21]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK597352/>
- <https://www.cdc.gov/nchs/data/databriefs/db492.pdf>
- Whitney, Eleanor Noss. Understanding Nutrition. Stamford, CT :Cengage Learning, 2022.
- <https://www.usopc.org/nutrition>
- <https://www.myplate.gov/myplate-kitchen>
- <https://www.mayoclinic.org/diseases-conditions/dehydration/symptoms-causes/syc-20354086>
- <https://www.mayoclinic.org/diseases-conditions/dehydration/symptoms-causes/syc-20354086>
- <https://hub.jhu.edu/at-work/2020/01/15/focus-on-wellness-drinking-more-water/#:~:text=Science%20suggests%20that%20water%20can,to%20results%20on%20the%20scale>



References cont.

- <https://www.health.harvard.edu/staying-healthy/8-steps-to-mindful-eating>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5556586/>
- <https://www.healthline.com/nutrition/mindful-eating-guide#what-it-is>
- <https://www.health.harvard.edu/staying-healthy/8-steps-to-mindful-eating>





U.S. PUBLIC HEALTH SERVICE

Thank you!