

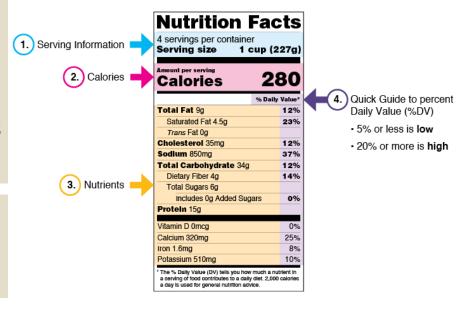
The macronutrients are the building blocks of nutrition, they are what your **body uses the most**.

The body uses macronutrients for: **energy**, **structure**, and to maintain body systems

AT A GLANCE

The USDA recommends:

- carbs: 45-65% of food consumed
- protein: 10-35% of food consumed
- fat: 20-35% of food consumed QUALITY of the nutrients is just as important as QUANTITY
- carbs contain **4 calories** per gram
- protein contains 4 calories per gram
- fat contains 9 calories per gram



MONTAGUE BOARD OF HEALTH
& UMASS AMHERST COLLEGE OF NURSING
1 AVENUE A, TURNER'S FALLS, MA 01376
CLASS OF 2021 - MATT D. & CHLOE W.

What are they?

PROTEIN

- amino acids are the building blocks of protein
- protein allows your body to grow, build, and repair tissues
- you must consume amino acids in your diet

protein makes you feel fuller longer

carbohydrates lead to lasting energy

fats are essential to include in your diet

CARBS

(carbohydrates)

- glucose (sugar) is the building block of carbs
- glucose is the main energy source for your body
- sweeteners are also considered a type of carbohydrate

FAT

- stores energy, cushions organs, maintains cell integrity, and plays a role in the body's use of hormones and vitamins
- fats are classified as unsaturated, saturated, and trans
- unsaturated fat is "healthy" fat and raises HDL ("healthy") cholesterol
- saturated fat is considered "less healthy" fat and increases LDL ("less healthy") cholesterol (leads to heart disease)

HEALTHY SWAPS:

use butter instead of margarine

trans fat should avoided

Where are they?

PROTEIN

- legumes
- eggs
- (beans, peas)
- meat
- nuts
- poultry
- seeds
- lentils
- fish

HEALTHY SWAPS: eat fish instead of beef

CARBS

- simple
- complex
- honey
- rice
- sugar
- pasta, bread
- syrup
- molasses
- milk/yogurt
- fruit

- - starchy
 - vegetables
 - (potatoes, squash, corn)

HEALTHY SWAPS: eat fruit instead of a cookie

- "healthy"
- unsaturated
 - plant oils (olive, peanut, sesame)
 - avocados
 - nuts and nut butter
 - seeds
 - fish (salmon, tuna)

focus on consuming more plant products than animal products and less processed food

- "less healthy"

- saturated
 - fast food (burgers)
 - fried food (french fries)
- processed foods
- baked foods (dessert)
- trans fat
 - margarine
 - vegetable shortening

Trans fat has almost been eliminated from all US food

Always eat everything in moderation!

References

- American Heart Association (AHA). (2021). Dietary fats.
 - https://www.heart.org/en/healthy-living/healthy-eating/eat-smart/fats/dietary-fats
- Austin, G., Ogden, L., & Hill, J. (2011). Trends in carbohydrate, fat, and protein intakes and association with energy intake in normal-weight, overweight, and obese individuals: 1971–2006. *The American Journal of Clinical Nutrition*, 93(4), 836–843. doi:10.3945/ajcn.110.000141
- Centers for Disease Control and Prevention. (n.d.). Food and Coronavirus Disease 2019

 (COVID-19). https://www.cdc.gov/coronavirus/2019-ncov/daily--coping/food-and-COVI

 D-19.html#nutrition
- Dugdale, D. (2020, July 13). *MedlinePlus*. Dietary fats explained. https://medlineplus.gov/ency/patientinstructions/000104.htm
- European Food Information Council. (2015, February 13). The functions of fats in the body. https://www.eufic.org/en/whats-in-food/article/facts-on-fats-dietary-fats-and-health
- Harvard Health Publishing. (2018, October). *Harvard Medical School*. Know the facts about fats: You need adequate amounts of good dietary fat.

 https://www.health.harvard.edu/staying-healthy/know-the-facts-about-fats
- Human nutrition. (n.d.). Retrieved April 15, 2021, from https://www.britannica.com/science/human-nutrition
- Sacks, F. M., Bray, G. A., Carey, V. J., Smith, S. R., Ryan, D. H., Anton, S. D., McManus, K., Champagne, C. M., Bishop, L. M., Laranjo, N., Leboff, M. S., Rood, J. C., de Jonge, L., Greenway, F. L., Loria, C. M., Obarzanek, E., & Williamson, D. A. (2018). Comparison

of weight-loss diets with different compositions of fat, protein, and carbohydrates. *The New England Journal of Medicine, 360*(9), 859–873. doi:10.1056/NEJMoa0804748

Tuso, P. J., Ismail, M. H., Ha, B. P., & Bartolotto, C. (2013). Nutritional update for physicians: Plant-based diets. *The Permanente Journal, 17*(2), 61–66. doi:10.7812/TPP/12-085