Our Body is Our Castle
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Fortify Your Castle:
Macronutrient Fact vs Fiction
What are Macros?
Fortify Your Castle:
Macronutrient Fact vs Fiction

Protein
**Brain**
Proteins make up neurotransmitters, which help brain cells communicate with each other.

**Muscles**
Protein is key for the growth and repair of muscle cells after physical activity. More muscle helps burn more calories at rest.

**Immune System**
Antibodies are proteins that help protect the body from viruses and bacteria.

**Hair, Skin and Nails**
Keratin is a type of protein that provides structure to hair, skin and nails.

**Blood**
Hemoglobin is a protein in blood that carries oxygen to the body's tissues.

**Hormones**
Protein helps make up most of the body's hormones, which have important functions for reproduction, growth and development and appetite regulation.

**Inside Our Cells**
Proteins make up enzymes, which catalyze numerous biochemical reactions aiding digestion, muscle and nerve function and even breathing.

**Tendons, Bones and Ligaments**
Collagen and elastin are types of protein that provide structure to bones, tendons and ligaments.
Protein:
Animal sources
Plant sources
“Complete Protein”
Proper Serving
- Men: 6-8oz
- Women: 4-6oz
- Snacks: 2-3oz
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Carbs
**BRAIN**
When the body breaks down carbs, much of it is used to fuel the brain. Consuming a low-carb diet may impair memory and cognitive function.

**GUT**
Fiber from carbs promotes regularity and a healthy and diverse gut microbiome, which supports the immune system.

**BLOOD**
Refined, simple carbs can spike blood sugar quickly, while complex carbs help maintain even blood sugar levels.

**HEART**
Dietary fiber found in complex carbs helps maintain healthy cholesterol levels and reduces the risk of cardiovascular disease.

**MUSCLES**
The body stores carbs in the form of glycogen here, which can be used for energy later, and is essential during prolonged physical activity.
Carbs:
Fiber
Nutrient density

Fruit & Veg vs Grains & Potatoes

Glycemic Index
Glycemic Load

Veg Servings: 8-12/day
Fruit Servings: 1-2/day
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Fat
BRAIN
Fat is important for brain development, memory, cognition and the production of neurotransmitters.

HORMONES
Fat aids in the production of estrogen, testosterone, growth hormone and more.

ORGANS
Fat helps insulate and protect our organs (e.g., kidneys, heart, lungs, intestines, liver, etc.) from damage.

BODY TEMP
Fat helps regulate body temperature and keeps the body warm.

HEART
Omega-3 and omega-6 fatty acids are heart-healthy, helping lower cholesterol.

SKIN
The essential fatty acids help keep skin hydrated, smooth and reduce redness.

GUT
Fat aids the absorption of important fat-soluble vitamins A, D, E and K in the small intestine.
The Cell Structure

Structure of a Typical Animal Cell

- Rough endoplasmic reticulum (ER)
- Smooth ER
- Golgi apparatus
- Nuclear pore
- Nucleus
- Nuclear envelope
- Centrioles
- Microfilaments
- Ribosomes
- Lysosome
- Plasma membrane
- Microbody
- Mitochondrion
- Cell Wall
- Mitochondria

Rough Endoplasmic Reticulum

Smooth Endoplasmic Reticulum

Golgi Apparatus

Chloroplast

Vacuole

Plasma Membrane
Fats:
Saturated
Unsaturated
- Mono
- Poly
Trans fats
(hydrogenated, hydrolyzed, fractionated)

Sources
Servings: 2-3/day
Serving Size: ½ avocado, 1 TBSP oil
Fortify Your Castle: Macronutrient Fact vs Fiction
Build a Meal
Build a Snack
We’re also Human