



U.S. PAIN
FOUNDATION

Our Body is Our Castle

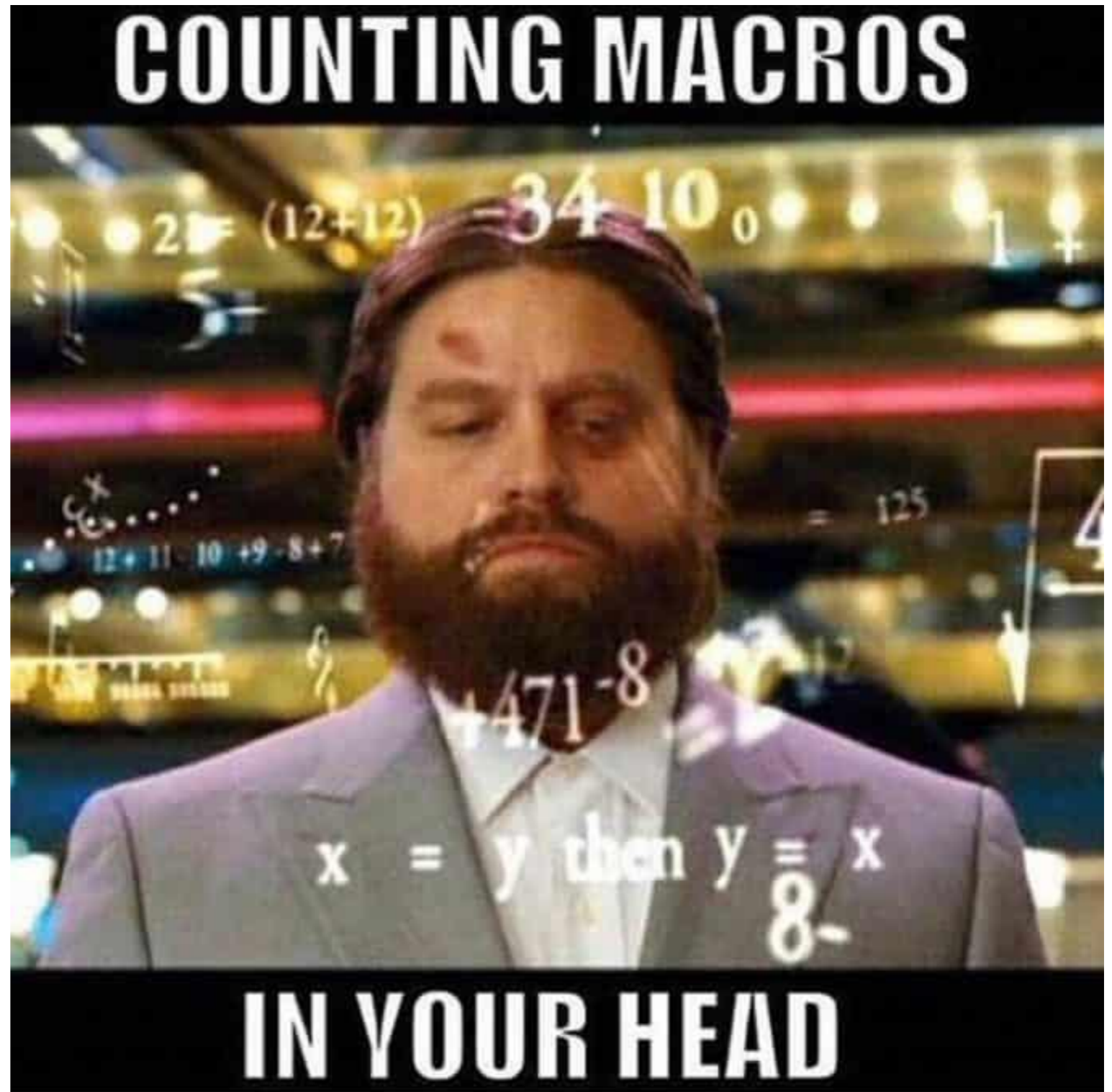
Christine Sotmary



Fortify Your Castle: Macronutrient Fact vs Fiction

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What are
Macros?





Fortify Your Castle:
Macronutrient Fact vs Fiction

Protein

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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.

INSIDE OUR CELLS

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

HAIR, SKIN AND NAILS

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

BLOOD

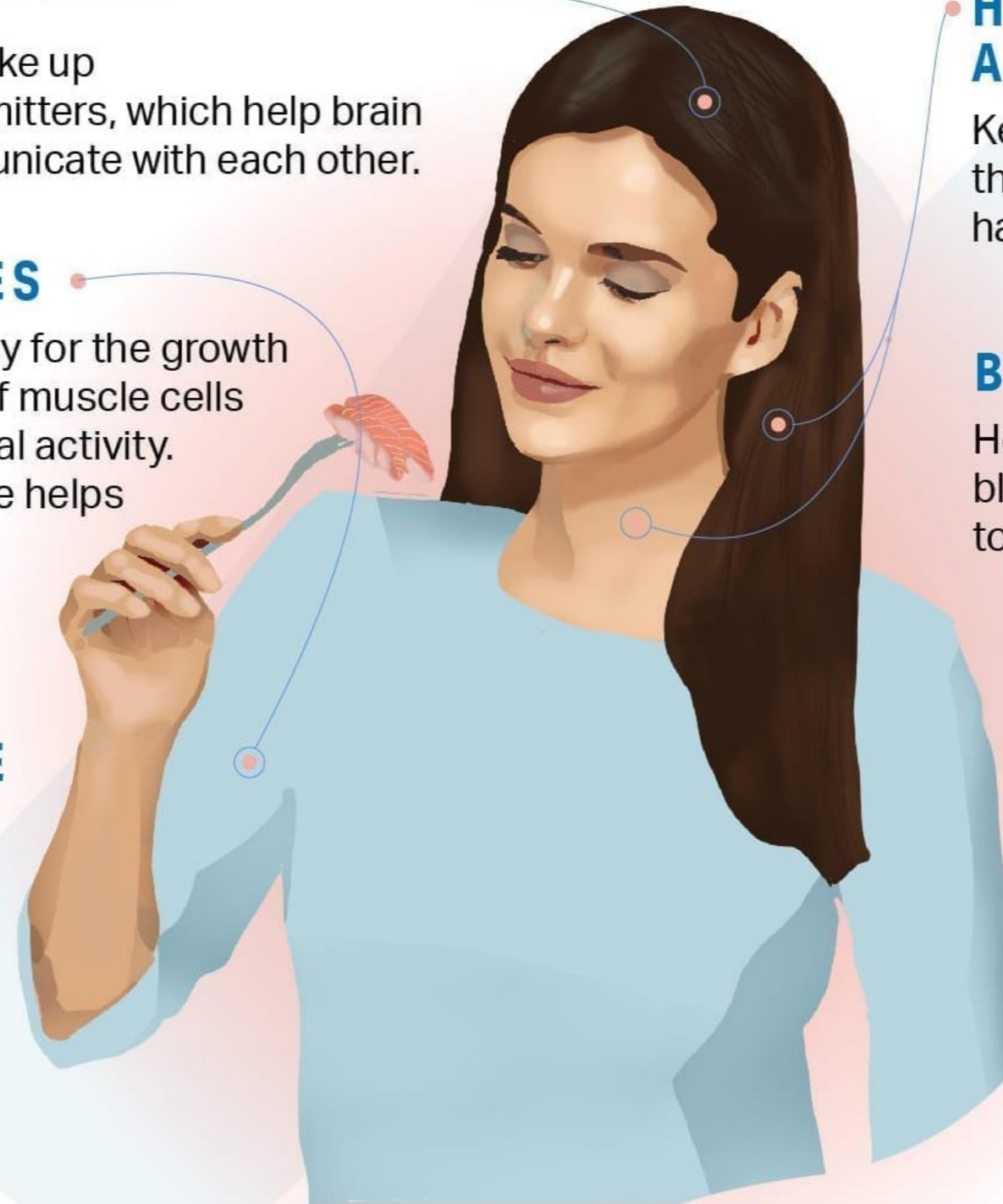
Hemoglobin is a protein in blood that carries oxygen to the body's tissues.

HORMONES

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

TENDONS, BONES AND LIGAMENTS

Collagen and elastin are types of protein that provide structure to bones, tendons and ligaments.





Fortify Your Castle: Macronutrient Fact vs Fiction

Carbs

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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

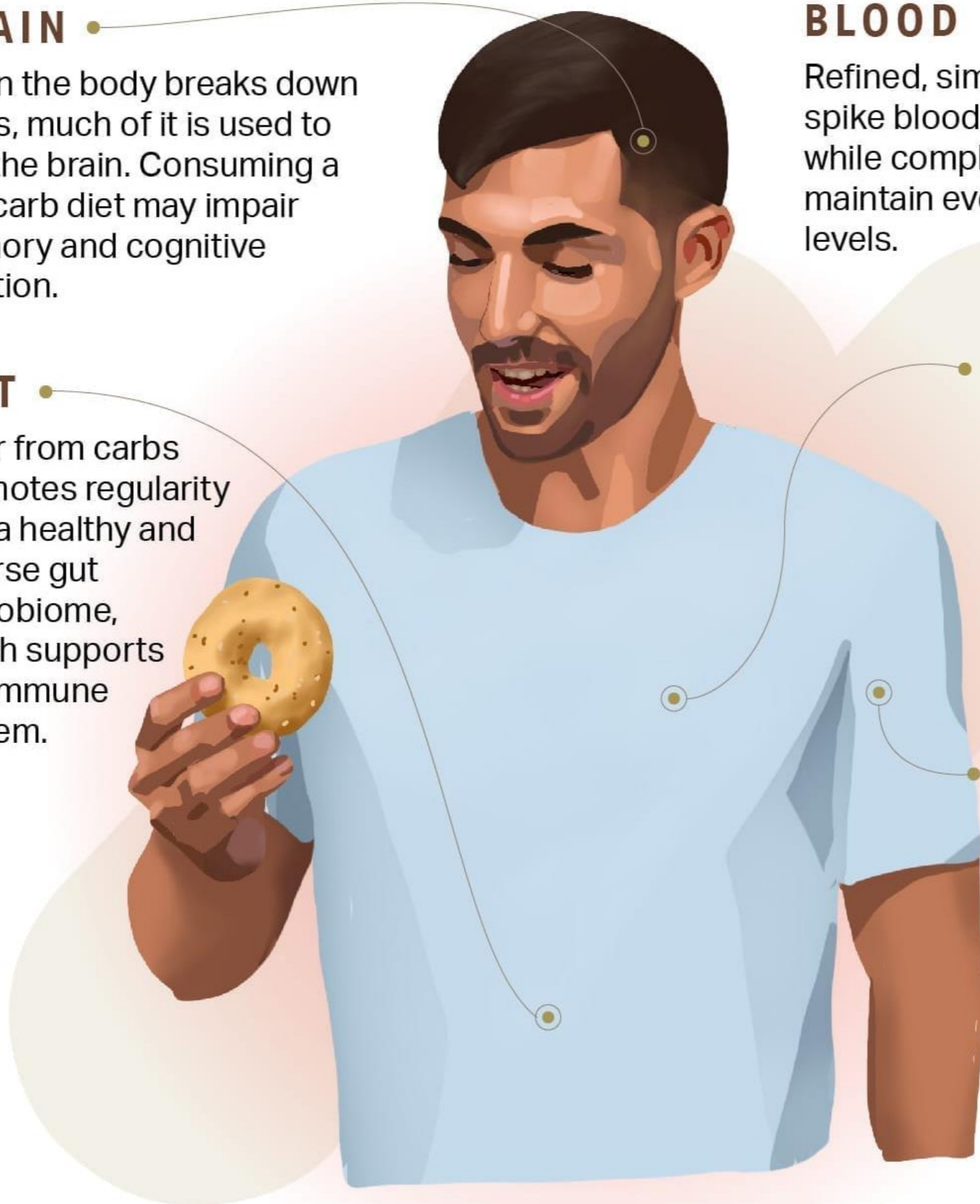
Refined, simple carbs can spike blood sugar quickly, while complex carbs help maintain even blood sugar levels.

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

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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

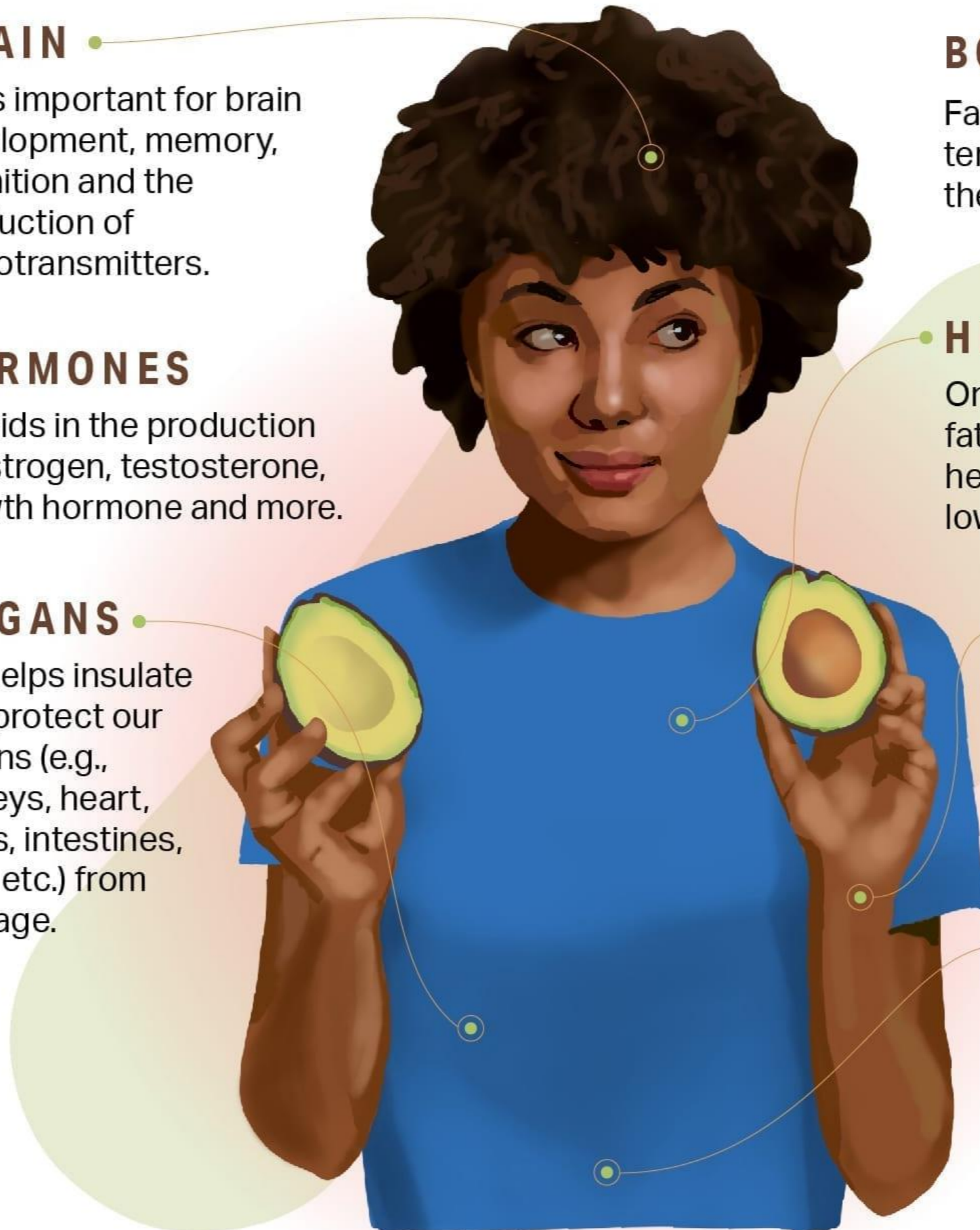
Omega-3 and omega-6 fatty acids are heart-healthy, helping lower cholesterol.

SKIN

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

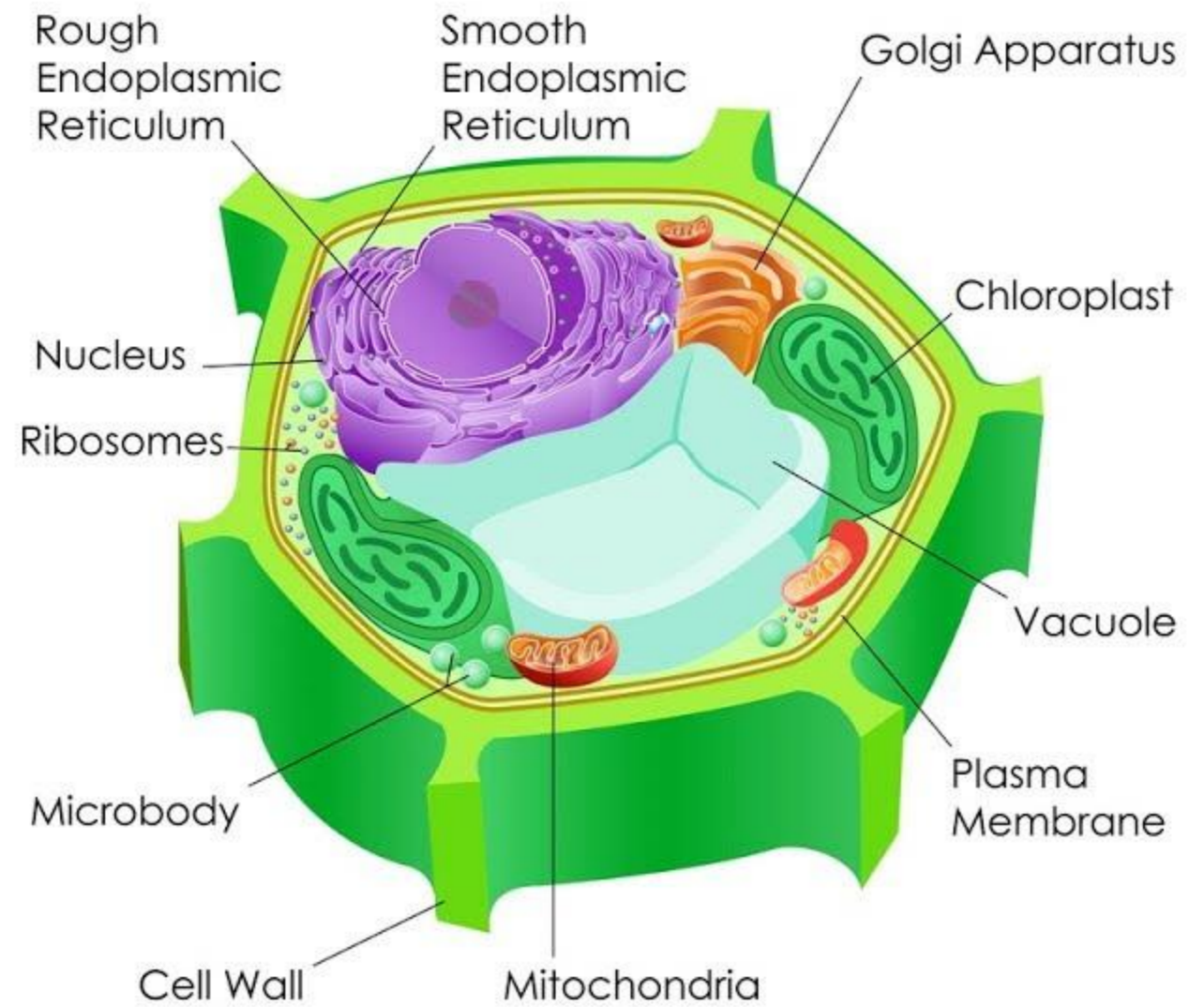
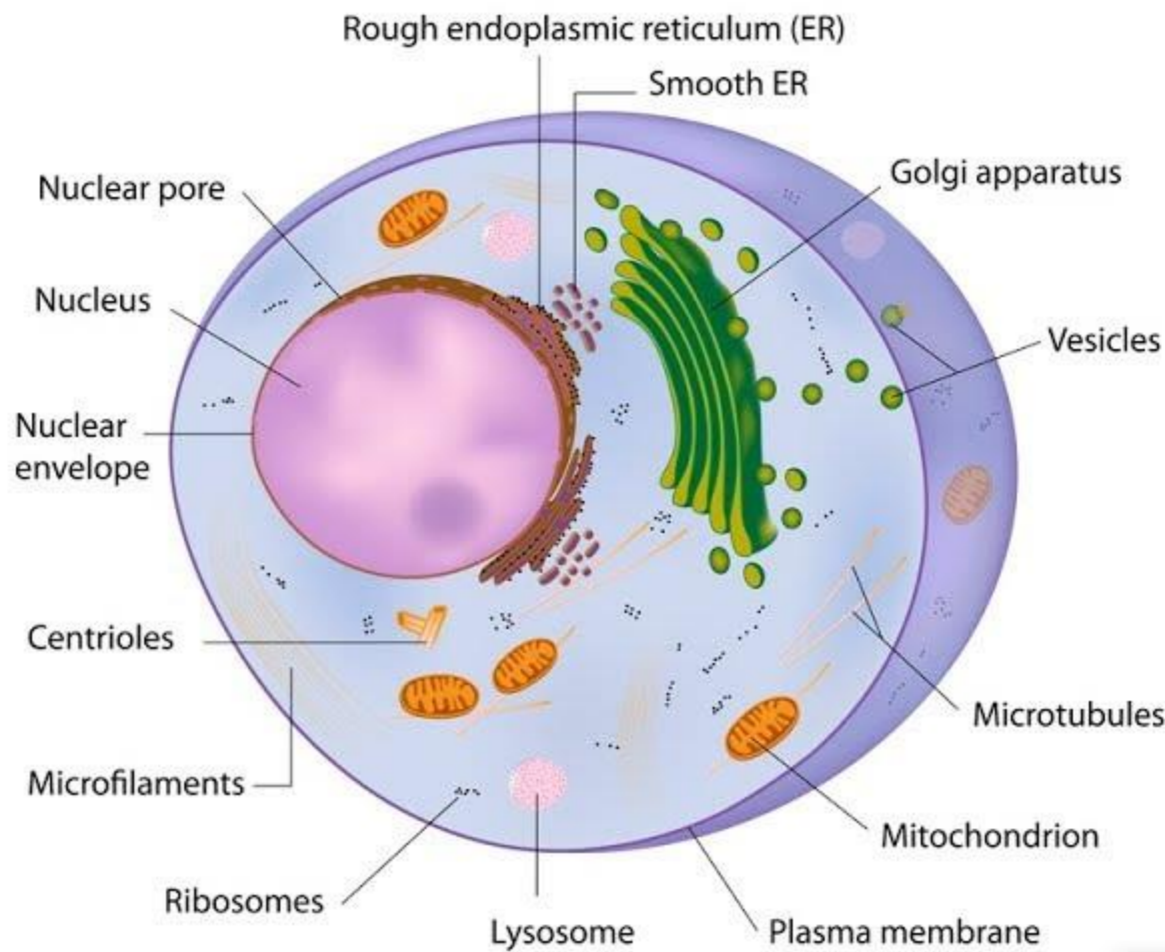
GUT

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



Fats:

Saturated

Unsaturated

- Mono

- Poly

Trans fats

(hydrogenated, hydrolyzed, fractionated)

Sources

Servings: 2-3/day

Serving Size: ½ avocado,
1 TBSP oil





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Micros

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Eat the Rainbow

Build a Meal Build a Snack





We're also Human



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