

Macronutrients=Food Groups

Macronutrients



carbs



proteins



fats



Carbohydrates

- The body's preferred source of energy.
- Carbohydrates are digested as glucose that is then converted to energy or stored if there is excess.
- Generally recommended for 40% of caloric intake to consist of carbohydrates.
 - Example: Based on a 2,000-calorie intake=200 grams of carbohydrates

Complex VS Simple

- **Complex Carbohydrates:**
 - Provide nutrient density, such as fiber and protein, thus slowing down digestion.
 - Manage blood sugar spikes following meals.
 - Aid in the maintenance of overall health; controlling your risk for heart disease, Type II diabetes, and unhealthy weight gain.



Complex VS Simple



- **Simple Carbohydrates:**
 - Fast digesting
 - Minimal to no nutrient density
 - Spikes blood sugar
 - Provides no satiety
 - Causes inflammation

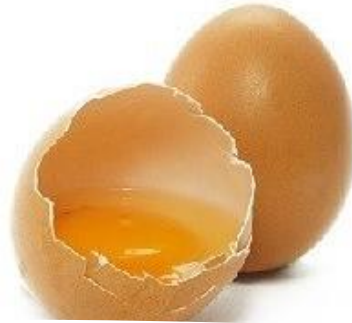
Protein

- Every cell in the human body contains protein. Protein found in hair, bones, skin, and muscle. Cells need protein to grow, heal, and reproduce.
- As the body digests protein it converts the protein into amino acids, also known as "building blocks".
- Protein is made up of 20 different amino acids. The body does not store amino acids.
- Amino acids are categorized into 3 groups;
 - Essential: Cannot be made by the body, and must be supplied by food. There are 9 essential amino acids.
 - Non-essential: Are made by the body from essential amino acids or in the normal breakdown of protein.
 - Conditional: Needed in times of illness or stress.



- [illegible]





Fat

- Fats are essential for energy, supporting cell growth, regulating body temperature, absorbing certain nutrients, protecting vital organs, and producing hormones.
- 65% of the human brain is made of fat.
- Your body can make it's own fat from taking in excess calories.
- Generally, ~30% of caloric intake should be fat.
- Example: 2,000 caloric intake =67 grams/day

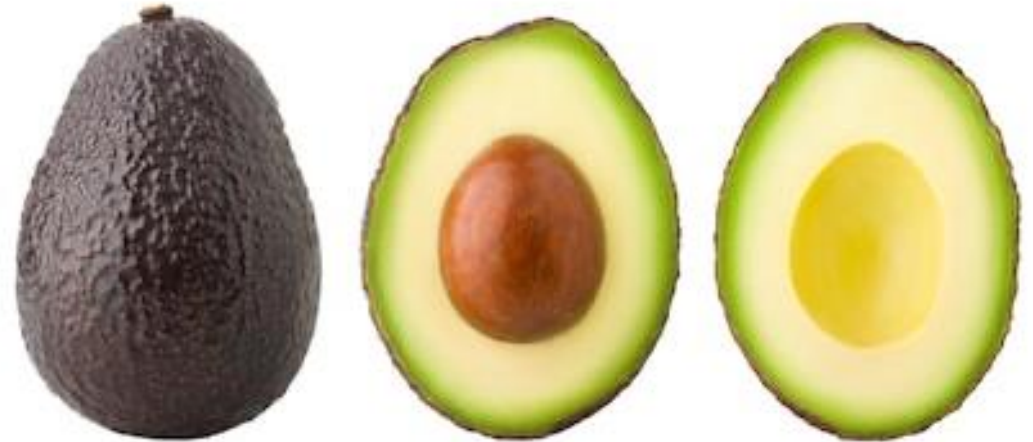
Fat

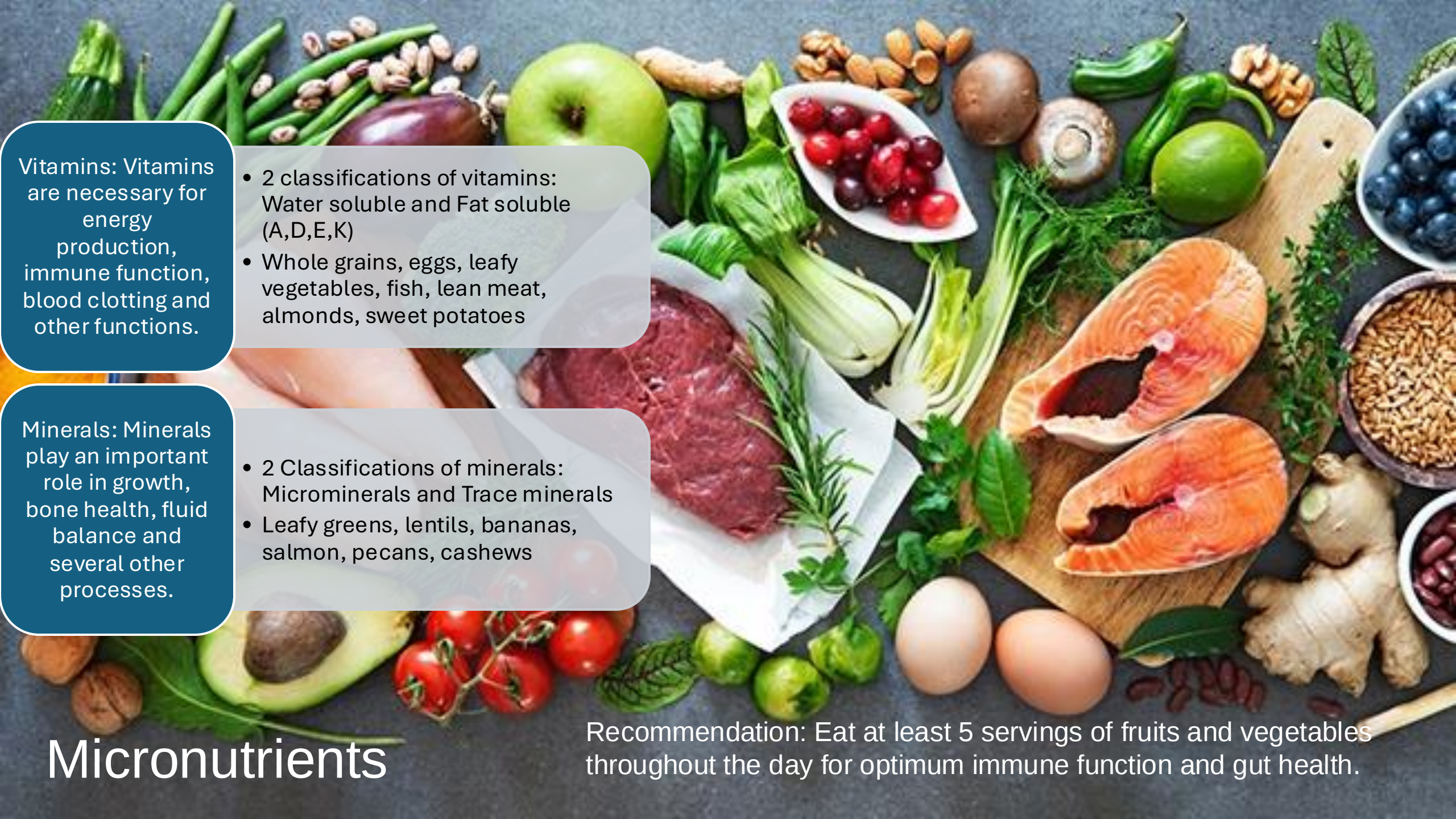
Healthy Fats:

- Unsaturated fats (liquid at room temperature)
 - Olive oil, nuts, avocado oil
 - Benefits: Promote weight-loss, reduce inflammation, and lower the risk of heart disease.
- *Some* saturated fats (solid at room temperature)
 - Whole food sources: Coconut oil, grass-fed butter, ghee, grass-fed meats, full fat organic dairy products (**Organic, grassfed, grass finished animal products**)
 - Benefits: Boost brain health, increases HDL cholesterol, forms the foundation of cell membranes
- Omega 3 fatty acids (Polyunsaturated fat):
 - Salmon, grass-fed and pasture raised meats, eggs, flax seeds, chia seeds, mackerel, sardines

Unhealthy Fats:

- Industrialized polyunsaturated fats =damaged and oxidized fats
 - Canola oil, soybean oil, peanut oil, corn oil, vegetable oil, seed oils
- Artificial Trans Fats: (hydrogenation in which food manufacturers add hydrogen molecules to liquid vegetable oils to extend shelf life, enhance flavor and create a more solid texture in foods.)
 - Peanut butter, cookies, crackers, cakes, etc....





Vitamins: Vitamins are necessary for energy production, immune function, blood clotting and other functions.

- 2 classifications of vitamins: Water soluble and Fat soluble (A,D,E,K)
- Whole grains, eggs, leafy vegetables, fish, lean meat, almonds, sweet potatoes

Minerals: Minerals play an important role in growth, bone health, fluid balance and several other processes.

- 2 Classifications of minerals: Microminerals and Trace minerals
- Leafy greens, lentils, bananas, salmon, pecans, cashews

Micronutrients

Recommendation: Eat at least 5 servings of fruits and vegetables throughout the day for optimum immune function and gut health.