

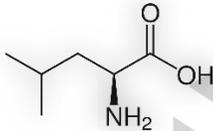
# Macronutrient Foundations

## What are macronutrients?

- **Nutrients** that provide our body with **energy** (calories)
- They are required in **greater amounts** compared to micronutrients

## Protein

- Protein is **essential to cell structures and functions**. It keeps your body functioning properly.



- Protein is made of **amino acids**. There are 20 amino acids – 9 of which are essential. This means your body **cannot** produce them. You must **consume them** through food sources.
  - Foods – **Lean meats, Poultry, Red Meat, Dairy Products, Eggs, Tofu**
- Protein makes up our tissues – including muscle. It helps facilitate enzyme reactions – including hormonal and immune functions.

- Protein provides your body with the necessary amino acids needed to sustain your body's processes.
  - **3-4 servings** of complete protein sources are suggested **daily**



- Protein-rich food sources are more **satiating** compared to carbohydrates and dietary fat. They can help **you feel full longer**.

## Carbohydrates

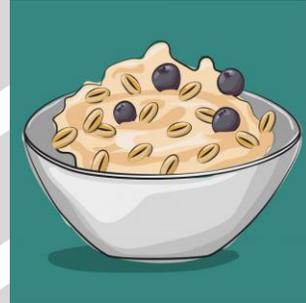
- Carbohydrates are our body's **preferred source of energy**.
- They provide our body with **glucose** that is stored in the liver and muscle tissue in the form of **glycogen**.



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- Carbohydrates are a **readily-available** source of energy for athletes. They can be broken down and utilized during exercise within 30-60 minutes (**Simple carbohydrates**).
  - Foods – **Fruits, White Bread, White Pasta, Sports Drinks**
- **Complex carbohydrates** take longer to breakdown. They provide a slower stream of energy throughout the day.
  - Foods – **Whole Grains, Oatmeal, Beans, Brown Rice**
- Consuming adequate amounts of carbohydrates is important for **daily energy**. They help athletes **maintain higher levels of performance**



## Dietary Fat

- Dietary fat is essential to the **development** of our **body**.
- Dietary fat assists in supporting our immune system, cell growth, vitamin absorption and hormone production.



- Dietary fat can also provide an energy source for **long-term, low-intensity aerobic activities**.
- **Recommended** types of dietary fat include: **unsaturated** and **polyunsaturated** fats
- **Unsaturated fats** – associated with decreased levels of LDL and cholesterol.
  - Foods – **Olive oil, avocados, almonds**
- **Polyunsaturated fats** – associated with decreased plaque build-up in our arteries
  - Foods – **Flax seeds, fish oil, walnuts**

# Macronutrient Foundations

## General Macronutrient Recommendations for Active Individuals or Athletes

- Protein 1.2g-2.0g PRO / KG of Bodyweight
- Carbohydrates 5-10g CHO / KG of Bodyweight
- Dietary Fat 20% (Minimum) of Total Calorie Intake

For more information, visit [Greaterhumanperformance.com](http://Greaterhumanperformance.com)

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