WHAT IS
PROTEIN

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Ok! So, we're almost ready to really talk about food. We will look at the macronutrients and first we will take a dive into Proteins.
Proteins are **incredibly important**, and without them our body composition and health would greatly suffer.

Proteins are an essential nutrient and can **be broken down into 20 building blocks known as amino acids.** Out of these 20 amino acids**, 9 are considered to be essential** meaning the body cannot synthesize them on its own, so we must obtain these from animal and plant sources. The other **11 aminos can be synthesized by the body**, making them **non-essential**.

PROTEIN QUALITY

When considering a protein source, one of the most popular methods is to classify the food by its **biological value (BV).**

The biological value of a protein is based on its quantity of the essential amino acids. So a food with a high BV (also known as a complete protein) **contains all 9 essential aminos.** This is commonly seen in animal and dairy products.

COMPLETE PROTEINS

Eggs

Poultry

Milk

Soybeans

Beef

Quinoa

INCOMPLETE PROTEINS

Cereal

Legumes

Grains

THE ROLE OF
PROTEIN

When we do consume sufficient amounts of high quality and complete proteins, it has a whole host of benefits.

- *Proteins provide building materials* ***– amino acids*** *– for growth and repair of body tissues.*
- *Proteins form* ***vital parts of most body structures****, such as skin, nails, hair, membranes, muscles, teeth, bones, organs, ligaments and tendons.*
- *Proteins* ***facilitate numerous chemical reactions*** *in the body; all enzymes are proteins.*
- *Some proteins* ***act as chemical messe****ngers, regulating body processes; not all hormones are proteins.*
- *Proteins assist the body in maintaining its resistance to disease by* ***acting against foreign disease-causing substances.***
- *Proteins* ***help regulate the quantity of fluids*** *in body compartments.*
- *Proteins* ***act as buffers****, to maintain the normal acid and base concentrations in body fluids.*
- *Proteins* ***move the required nutrients and other substances*** *into and out of cells and around the body.*
- *Protein can* ***be used to provide calories (4 calories per gram****) to help meet the body's energy needs.*

HOW MUCH PROTEIN DO WE NEED

The debate still continues on how much protein we need daily, but there appears to be a general agreement that active individuals need a higher intake than sedentary people.

THE AVERAGE INTAKE

For a healthy person of a healthy weight who is mainly sedentary and is not seeking changes in body composition – ***then an intake of 0.4 – 0.6 grams of protein per pound bodyweight is sufficient.***

WHEN LOSING BODY FAT

Having a high protein intake during a calorie deficit is also important, as it is very anabolic, meaning we are ***more likely to preserve lean body tissue in the process.***

HOW MUCH PROTEIN DO WE NEED

WHEN BUILDING MUSCLE

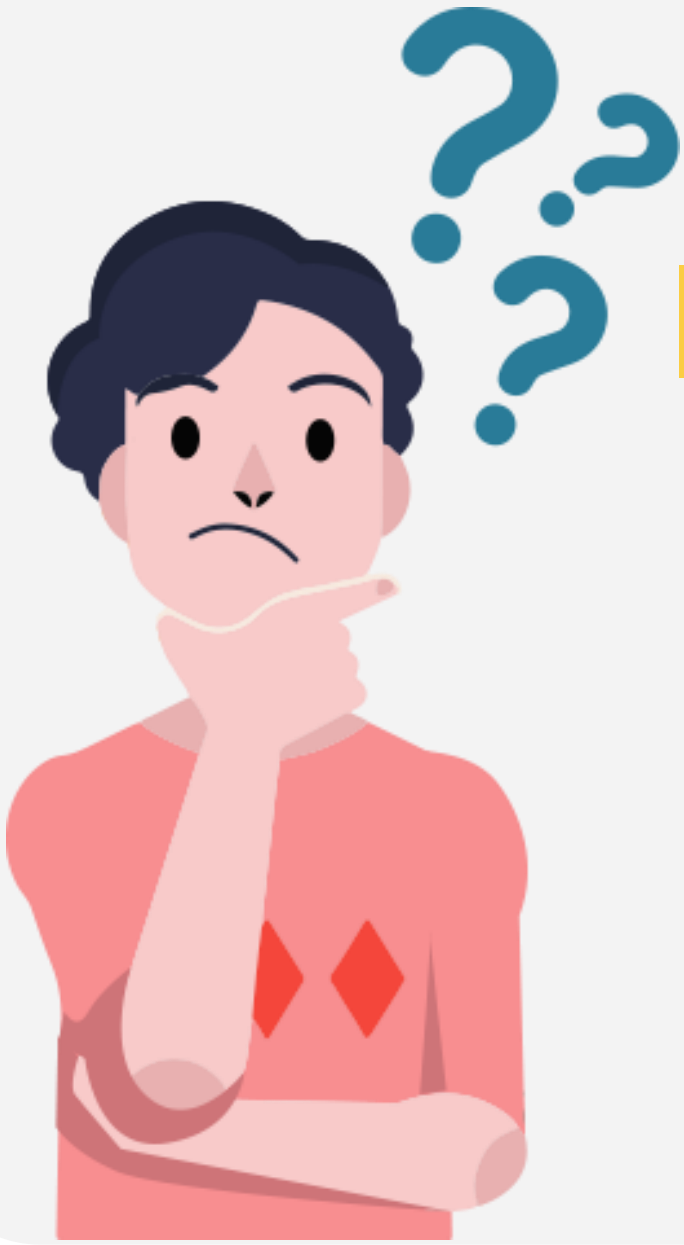
*The studies that look at **muscle mass and protein intake** tend to **vary from 0.8-1.0+ gram per pound bodyweight**, so it's safe to say a balanced approach would be most beneficial, so around **1g per pound bodyweight is highly effective**.*

ELDERLY

*The research shows a **daily intake of 0.45-0.6 gram per pound bodyweight.** Finally, those recovering from injuries may also benefit from a higher protein diet.*

DANGERS OF A
HIGH PROTEIN DIET

Many people will try and tell us that a high protein diet is bad for us, and that it is linked to cardiovascular disease, dehydration, calcium loss and damaged liver and kidney function. The question that must be asked is – show us the accurate research.



HERE'S WHAT YOU NEED TO KNOW

*There is **no link** to protein causing increased **risk of coronary heart disease.***

*There is **no link** to protein causing **liver or kidney damage** in healthy subjects.*

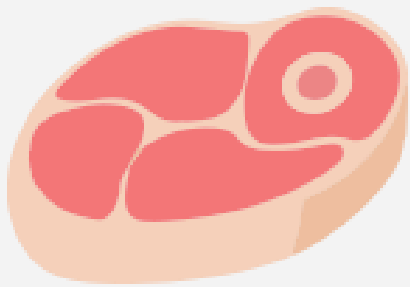
*Recent studies show a **positive relationship between protein intake and bone health.***

PROTEIN SOURCES

ANIMAL PROTEIN SOURCES

1g edible protein per 100g in weight

- *Bluefin Tuna - **29.92g***
- *Chicken Dark Meat - **28.99g***
- *Turkey White Meat - **28.48g***
- *Cooked Salmon - 25.56g*
- *Lamb Cooked - **24.52g***
- *Duck - **23.48g***
- *Pork Chop - **21.91g***
- *Chicken White Meat - **16.79g***



PROTEIN SOURCES

PLANT & DAIRY PROTEIN SOURCES

1g edible protein per 100g in weight

- *Pumpkin Seeds - **32.47g***
- *Peanut Butter - **25.09g***
- *Cheddar Cheese - **24.90g***
- *Peanuts - **23.68g***
- *Almonds - **22.09g***
- *Tofu - **17.19g***

- *Fried Eggs - **15.03g***
- *Cottage Cheese - **12.93g***
- *Lentils - **9.50g***
- *Lima Beans - **7.80g***