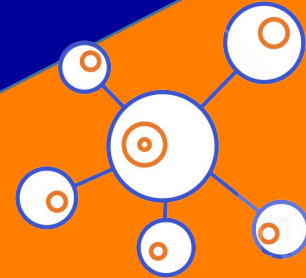


## Macronutrients part 2 - Protein

Prowess  
12.29.20



## Macros - protein and aminos' basics

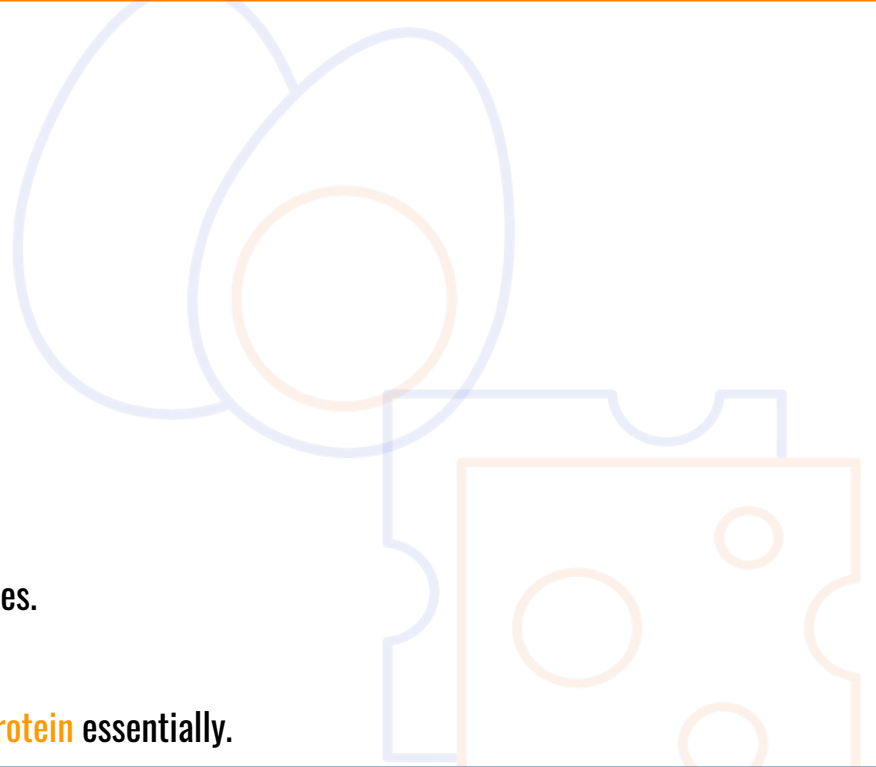
## Protein

- Animal meat
- soybeans
- cheese
- yogurts and dairy milk
- legumes
- eggs
- buckwheat
- chickpeas/ yellow peas
- MORE

You're burning **4** calories per gram of protein, same as carbohydrates.

Proteins – **polypeptides** - are made up of **amino acids**.

A polypeptide is going to fold into some configuration and become a **protein** essentially.



## Complex Compounds | Protein

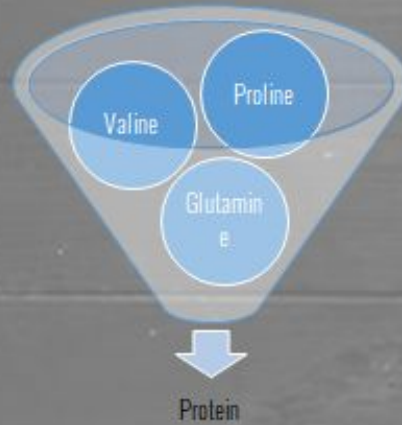
The infographic features a central image of various protein sources including salmon, eggs, nuts, seeds, and meat. To the right, a calculation is shown in blue circles: 100g multiplied by 4 calories per gram equals 400 calories. The word 'PROTEIN' is written in large, bold, black letters at the bottom of the infographic.

**PROTEIN**

100g  
4 calories per gram  
400 calories

protein - science breakdown

## Complex Compounds | Protein



One Amino Acid | mono-peptide

Two AA | di-peptide

Three-20 AA |  
poly-peptide  
(folded)

20+ protein  
(quaternary  
structure)

## protein - science breakdown

## Amino Acid Essentials

There's three basic types:

- essential
- non-essential
- conditional.

Essential aminos: we need to **eat** order to sustain life versus (non-essential) those we can “create” inside our system (from other “nutrient building blocks.”) We need to consume the 9 AA's daily.

Conditional aminos: our body can create these in times of great need **ONLY**.

**Branch chain amino acids**, each one of these BCAA's: one is glucogenic – can be metabolized into glucose or sugar, one is ketogenic - can be turned into ketones, and the last one can do both.

## Complex Compounds | Protein

Essential Amino Acids (9)	
Histidine	Isoleucine (BCAA)
Leucine (BCAA)	Lysine
Phenylalanine	Methionine
Valine (BCAA)	Tryptophan
Threonine	

Conditionally Essential Amino Acids (6)	
Arginine	Cysteine
Glutamine	Glycine
Proline	Tyrosine

NON-Essential Amino Acids (7)	
Alanine	Aspartic Acid
Glutamic Acid	Arg
Serine	Selenocysteine

KETOgenic  
GLUCOgenic  
Both

protein - science breakdown

[👉 \*Intermittent fasting Breakdown\*](#)

[👉 \*Carb cycle \(advanced\)\*](#)

[👉 \*Courses & diet tutorials!\*](#)

