

## PROTEIN – WHY IS IT SO IMPORTANT?

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Protein is vital for human physiology because it supplies the body with amino acids.

Amino acids make and repair body tissues including muscle, skin, bone and organs, nails, hair. They also coordinate hormone production, regulate metabolism, build enzymes and make antibodies and immune system molecules.

The body can only store a small pool of amino acids so we must replace them regularly through a protein rich diet. Ideally eat protein at every meal and snack. Research has shown that spreading your protein intake throughout your day is optimum for building and maintaining muscle. This means that you should look for a protein source at every meal and snack. It also help stabilise blood sugar and energy levels and keep you feeling fuller for longer.

What is does 'complete' and 'essential' amino acids mean?

A complete protein is a food that contains all 9 essential amino acids.

'Essential' Amino Acids because we cannot manufacture them in the body, so it is 'essential' that we get them through the diet. Examples of complete proteins containing all the 8 essential amino acids include; eggs, milk, fish, cheese, poultry, meat and protein powders.

Can I have too much or too little? Yes.

Protein in Excess	Protein Deficiency
<ul style="list-style-type: none"> <li>▪ Creates undesirable end products which the liver and kidneys have to filter - can put stress on these filtering organs</li> <li>▪ Fluid imbalance / Constipation - protein metabolism requires 7 times more water than carbohydrates.</li> <li>▪ Increased risk of bone issues - blood becomes more acidic with a high protein diet so calcium is taken from bones to alkalise the blood</li> <li>▪ Strong body odour as protein is high in nitrogen</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lack of strength</li> <li>▪ Frequent infections such as cold and flue</li> <li>▪ Tiredness and lethargy</li> <li>▪ Irritability, mood changes, depression</li> <li>▪ Tooth decay, allergies and acne</li> <li>▪ Poor wound healing – dry and flaky skin</li> <li>▪ Fluid retention / Diarrhoea</li> <li>▪ Bloating and poor digestion</li> </ul>

*Table 1: Dangers and Symptoms of incorrect protein intake are below*

DAILY INTAKE ESTIMATE

The guide for the general population is 1.2-1.5g per kg of body weight per day.

LIFESTYLE	Grams per kg body weight	TRAINING
Athlete	1.4-1.6g	Long distance or high intensity, high volume
Muscle bulk	2g	High workload / strength
Active	1.2-1.5g	3-4 times per week sessions
Sedentary	1.2-1.4g	Low activity levels

Table 2: Guidelines for protein based on activity

For example a 60 kilogram athlete doing a good amount of training they will need to intake 60 x 1.5 grams = 90 grams of protein per day.

Men may want to go on the higher end of these scales, women on the lower end.

Aim for \_\_\_\_\_ grams per kg of body weight per day.

COMMON SOURCES

Animal	Legumes	Nuts	Seeds	Grains (minimal)
Fish	Lentils	Almonds	Sunflower	Brown Rice
Eggs	Soy Products -	Brazils	Sesame	Oats
Meat	Tofu	Cashews	Pumpkin	Wheat
Poultry	Kidney Beans	Walnuts	Flaxseed	Corn
Dairy Products	Lima Beans	Pecans	Linseeds	Millet
	Chick Peas	Hazel Nuts	Chia seeds	Rye
	Mung Beans	Pistachios	Quinoa	Barley
	Adzuki Beans	Macadamias		Buckwheat
	Broad Beans			
	Golden Peas			

Table 3: Common sources of protein

WHAT DOES IT LOOK LIKE?

A useful rule of thumb is a palm sized portion and no thicker than your hand

FOOD	PROTEIN (grams)
1 egg 50g (raw)	5-6
2 egg whites 70 g (raw)	7-8
Almond butter 1 Tbs	2

FOOD	PROTEIN (grams)
Almonds 33g / Nuts	6.6
Anchovies (5) 20g	5.8
Bacon 2 slices ( thick style)	10-12
Baked beans 220g	20
Brown rice 1/2 cup cooked	2.3
Cashews 25g (raw)	4
Chicken breast 100g cooked	20-25
Cottage cheese 100g	15-18
Feta cheese 28g	4
Fish 120g	20
Goats cheese ( soft/chev) 100 grams	18-19
Greek Yoghurt full fat (150 grams)	11-12
Haloumi cheese 30g	6
Kidney beans 175g	6.7
Lean Beef or Lamb 120grams	25
Milk 250ml low fat 2%	11
Mozzarella 60 grams	11-12
Muesli (not toasted) 100g	11
Muesli (toasted) 100g	9
Oysters 50g (raw)	6
Pine Nuts 33 g	4.3
Protein powder (1 serve )	20-25
Quinoa 85g (dry)	12
Ricotta cheese (246 g)	28
Rolled oats 100g	11-14
Salmon 100g	25
Snapper / Swordfish 85g	21
Soymilk 250ml	7
Sunflower seeds 33g	7.6
Tofu 100 grams	12
Tuna 100g (canned)	25
White rice 1/2 cup cooked	2.1

Table 3: Grams of protein in common foods

This information is intended as a guide only. This is not medical advice. Please consult a qualified healthcare practitioner to receive individualised advice.

*Credit note with thanks to Kira Sutherland, Uber Health [www.kirasutherland.com.au](http://www.kirasutherland.com.au)*