Protein (Builds, repairs, maintains)



PROTEIN

- Whether your goal is to improve your mental & physical health & vitality, build muscle, burn fat or just get into better shape, it is important you eat enough protein every day at each meal.
- Protein is essential for life. It is the second most plentiful substance in your body (after water) and makes up around 20% of your total weight.
- Protein makes everything on and in your body Ie. skin, fingernails, hair, brain, internal organs, teeth, muscle, antibodies, hormones, enzymes, fat burning enzymes and vitamins etc.
- Protein repairs & protects our DNA from damage, maintains the integrity and strength of our intestinal wall and keeps our immune system strong.
- Protein repairs every cell and tissue of our body and sustains our lean muscle mass.
- Our requirement for protein increases as we age, and in times of mental or physical stress, illness or pregnancy.
- Protein is important for weight loss because it is the building block for muscles. The
 more muscle you have the faster your metabolism Ie. the faster you burn through
 food and fat. The way to gain more muscle is to do resistance training, eat enough
 protein throughout the day at each meal, and get enough rest.
- Remember, too much protein at the wrong time of the day will turn to fat.

ANIMAL PROTEINS

• Lean, non fat or low fat chicken or turkey breast, fish, shellfish, eggs, red meats, dairy or whey based protein powders.

VEGETABLE PROTEINS

- Single vegetable proteins are not complete proteins. To obtain complete protein, combinations of vegetable protein sources must be eaten in the same meal.
- Calculate carefully. Complete proteins are essential for optimum health, eg. combine 1, 2, 3 or 4 (below) in at least 2 combinations in the same meal. Eg. 1. Lentils & 2. Brown Rice or 1. Rye & 2. Hummus made from Chickpeas or 3. Nuts & 4. Seeds or 2. Millet & 3. Walnuts etc
 - 1. <u>Legume</u>: eg. Kidney, Chickpea, Lentil, Soy Milk or Soy Powders, Soy Bean, Tofu, B/Beans.
 - 2. Grains: eg. Millet, Rice, Rye, Oats, Barley.
 - 3. Nuts: eq. Almonds, Walnut, Pecan, Brazil (peanuts not recommended).
 - 4. <u>Seeds</u>: eg. Sunflower, Pumpkin, Linseed, Sesame, Tahini, LSA (linseed, sunflower & almond blend).

Protein Calculation

- It is very important that you spread your protein requirement evenly throughout the
 day, especially eat a substantial protein amount at breakfast. This will assist in the
 stabilizing of your metabolism (weight control), energy levels, sugar levels, mood
 swings and cravings.
- Your daily protein requirement needs to be calculated on your (IBW) IDEAL BODY WEIGHT (not your current weight) for your height, age, gender and activity level.

NB: please check a height weight chart for your approximate Ideal Body Weight or consult your Personal Trainer.

See next page for Recommended Daily Protein Intake, Food Protein Amounts and Protein Calculation.



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Recommended Daily Protein Intake

Person	Protein (g) per kilogram of body weight	Person	Protein (g) per kilogram of body weight
1-3 years	1.78	Lactating	1.17
4-6 years	1.50	65 ⁺	1.1
7-10 years	1.20	Recreational Exercise	0.8 - 1
11- 18 years	1	Endurance athletes	1.2-1.4
19 ⁺ years	0.8 - 1	Strength athletes	1.4-1.8
Pregnant	1.36	Speed athletes	1.4-1.8

Food Protein Amounts

Food	Amount/Weight	Protein
Fish	100g	20g
Fresh Tuna (check label for protein in tinned Tuna)	100g	29g
Salmon	100g	20g
Chicken	100g	20g
Steak	100g	20g
Egg	1	6g
White	1	3g
Yolk	1	3g
Milk	1 cup (low fat)	8g
Soy Milk	1 cup	8g
Yoghurt	½ cup (low fat/skim)	7g
Cottage Cheese	½ cup (low fat/skim)	15g
Ricotta Cheese	½ cup	19g
Cheese	30g (low fat)	6-7g
Beans (eg. Kidney, Lentil, Chickpea etc)	1 cup (cooked)	16-20g
Baked Beans	½ cup	8g
Tofu	100g	7-8g
Soy Beans	1 cup	20g
Rice (brown)	1 cup cooked	6g
Millet	1 cup cooked	11g
Oats	1 cup cooked	6g
Bread	X 2 (wholemeal)	5g
Pita Bread	X 1 (wholemeal)	6g
Spaghetti / Pasta	1 cup (wholemeal)	12g
Nuts & Seeds (eg. Almonds, Sunflower, Pumpkin, Walnut etc)	½ cup	13g

Reference: Nutrition Almanac - Lavon J Dunne. NOTE: Amounts may vary with different references.

How to work out how much protein you should have in your daily diet

Eg. Female, recreational exerciser, weighs 70kg but her ideal body weight is 60kg.

1. How much protein per day?

 $60 \text{kg} \times 0.8 - 1 \text{g} = 48 - 60 \text{g} \text{ of protein per day}$

2. How much protein per meal?

60g protein per day (divide by 3 main meals) = approx 20g protein per meal

	Breakfast/morning tea	Lunch/Afternoon tea	Dinner
	1 cup cooked oats (6g)	Chicken (100g)	Fish (100g) OR
	3/4 cup milk/soy (6g)		100g Tofu (7g)
	1 egg (6g)		½ cup chickpeas (8g)
	1 x bread (2.5g)		1 cup brown rice (6g)
Total	20.5g protein	20g protein	21g protein