

Protein



Characteristics of protein

- Zero carbs
- Complete amino acids
- Usually from a mammal or aquatic animal
- Cheese and dairy has small amounts of protein and carbs, but not as good as a primary source. From an esthetic standpoint, cheese and dairy are not your best sources.



Certain Types of Protein Matter

- Some people will do better on more vegetarian protein; some on meat protein.
- Red meat vs. white meat
- Fish vs. mammal



Vegetarian types – better off with beans, tofu, low-fat meat & fish

Mixed types – variety of proteins



Protein types – fine with red meat and less with beans/tofu

Vegetarian Proteins

- Complete protein = 22 amino acids
 - naturally produce 13 amino acids, must seek 9 others through diet
 - Vegan or vegetarian proteins need to be completed
- Nuts, seeds, beans
- Complete by adding starch, usually by adding a grain



Amount of Protein you need depends on ...

- Genetics
- Health condition, life stage
- Microbiome (generally the more destabilized a microbiome is, the more protein you'll need)--candida and gut-healing diets require more protein for satiation.
- Blood sugar (higher protein)
- Activity level



Calculating Protein Needs

1. By activity level
2. By percentage



1. By Activity Level



- So there is a range ... depending on the factors listed previously
- Sedentary 0.8 g per kg

1.2 to 2 g per kg if you are under stress, pregnant, recovering from illness or injury, older, malnourished, or intense exercise. Under 2 g per kg is safe.

Highly trained athletes up to 3 grams per kg of protein!

Gym science, but still accurate: If you lift, 1 g of protein per lb. of bodyweight. 130 lb. woman = 130 g of protein. You're still close to the 1.2 to 2 kg range – maybe a bit extra but not by much.

Example

Your weight in lbs. divided by 2.2 to get your weight in kg.

So, 130 lbs. divided by 2.2 = 59 kg

59 kg x 1.8 (active) = 106 g protein (or the equivalent of three palm-sized chicken breasts, 1 hard-cooked egg)





2. By Percentage

- Figure out how many calories you need (internet search)
- safe range = 10 to 35 percent.
- Again, 10 percent if you're sedentary and more of a vegetarian type. Higher if you're active and perhaps a mixed/protein type.
- towards the higher range of 35 if you're active, experiencing illness, pregnant, issues with the microbiome, want weight loss; lower range if you're less active, low-protein vegetarian type, possibly a cancer or kidney diet.

Example

Active woman 1800 calories, so we will put her on a higher range at about 30 percent.

- $1800 \text{ calories} \times .30 \text{ (30 percent)} = 540 \text{ calories from protein}$

1 gram of protein = 4 calories

$540 \text{ divided by } 4 = 135 \text{ g of protein per day}$



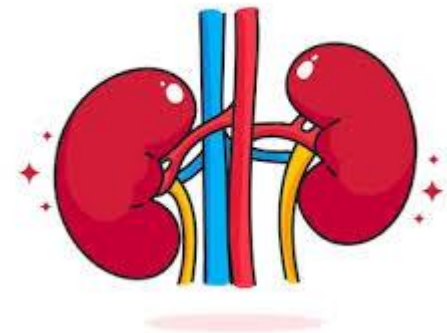
Counting protein

- Web search – know the protein and the amount
- you can use apps that will tell you too (MyFitnessPal, Protein Tracker, My Plate, etc.)



How about your kidneys?

- Latest studies – evidence that a high-protein diet will harm your kidneys (Ko et al., 2020)
- However, formulas given today are safe for most healthy individuals.
- High protein diets (anything past 20 percent of your daily intake) – diabetic and obese persons are more susceptible to kidney disease
- Kidney disease or risk of, no more than 1.0 g per kg of weight



Eating more protein?

- Drink lots of water (help kidneys filter)
- Eat more B6 (protein metabolism) - salmon, tuna, eggs, chicken liver, carrots, spinach, sweet potato, green peas, bananas.



Vegetarian vs. Meat Protein

- Replacing some animal protein with vegan protein lowers risk of kidney disease.
- However, it is hard building lean muscle with just vegan protein alone unless it must be done for ethical and lifestyle factors. You would need really good gut health to build lean muscle on just vegan.



Protein Powders/Bars

- no issue with them as long as they don't include chemicals, binders, food dyes—they are basically “clean”.
- Choose a base that does not bloat you e.g. soy and whey may bloat, but pea or brown rice protein powder is fine.
- Protein bars – watch for sugars such as brown rice syrup, malt, and cane sugar.



Some Other Protein Tips



- Aim for 20-30 grams at each main meal
- 10-15 grams at each snack
- Tailor the amount to your personal blend (vegetarian vs. animal, fish vs. land, etc.)
- In a perfect world, you'd opt for hormone-free and/or organic sources; otherwise, vary your sourcing.

Q & A