Protein Guide

Updated June 27, 2024

Aranka Jones
naturopathic doctor

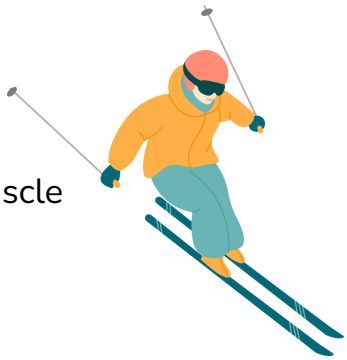
arankajones.com

Protein Guide

I spend a lot of time talking about protein because this macronutrient has such a powerful impact on our health. When protein is lacking, which I see all too often, increasing protein intake is a relatively easy and enjoyable way to feel better.

Meeting protein requirements is essential to good health and preventing disease. This is because protein serves many important functions:

- improves satiety and regulates appetite
- improves blood sugar regulation
- maintains muscles, bones and connective tissue as we age
- essential to seeing results with resistance training to build muscle
- required for post-workout recovery and tissue repair
- required for optimal neurotransmitter production and mood



In the context of aging, people who do not meet their protein requirements are a lot more likely to experience the following:

- fatigue
- hunger and cravings
- irritability
- anxiousness
- low mood
- muscle loss
- low muscle mass (sarcopenia)
- increased body fat
- difficulty losing body fat
- poor recovery from exercise
- low motivation to be active
- osteopenia
- osteoporosis
- insulin resistance
- pre-diabetes
- diabetes
- cognitive decline

Did you know that low muscle mass is associated with a higher risk for cardiovascular disease and dementia?

Calculate Your Protein Requirements

To support optimal health and prevent diseases of aging, we need to mindfully preserve muscle mass and bone density by eating enough protein and engaging in resistance training. This is particularly important for women in mid life who are trying to lose weight. Studies show that weight loss without adequate protein intake and strength training causes more rapid loss of muscle and bone than what would happen due to menopause alone. By meeting protein requirements and incorporating resistance training, we can reduce our body fat if needed, without causing more harm than good.

Protein Requirements

Women: 1 gram per pound of "ideal" body mass
Men: 0.8 gram per pound of "ideal" body mass

*individual needs may vary

Reflection Questions:

How much protein do you think you consume in a typical day?

How much more do you think you need to consume?

What are your favourite sources of protein?

What challenges do you anticipate with respect to eating more protein?

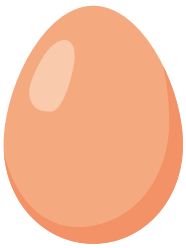
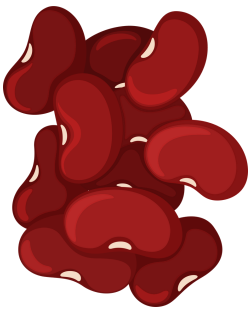
Meeting Your Requirements

Now that you know your daily protein requirements, we are going to plan your meals to help you fit it all in. But first, a few things to consider:

- **Spread out your protein** and don't skimp on it at breakfast or lunch. You will enjoy more energy, stable blood sugar and better appetite regulation if you include protein throughout the day. This also makes it much easier to reach your requirements.
  - For example, if your protein requirement is 140 grams per day, include about 40 grams per meal plus a snack or two to reach your target.
  - Plan ahead so that you have sources of protein on hand for quick meals and snacks. Cook extra meat, poultry, fish or legumes at dinner and set it aside for the next day's breakfast or lunch. Keep your pantry stocked with canned salmon, tuna, mackerel and sardines. High protein dairy, like Greek yogurt, skyr and cottage cheese make excellent snacks.

- **Vegetarians and vegans** may find it more challenging to reach their protein requirements. Although protein is found in a variety of plant foods, meeting protein requirements with plant foods alone may put a person into a caloric excess due to the volume of food required.
  - check labels to determine your protein intake
  - use a protein powder in smoothies
  - consider expanding your diet to include more nutrient dense foods

- **What about fasting?** Although men may benefit from fasting in certain situations, I do NOT recommend fasting for women. Although this practice is trending and promoted by alleged "experts" with varying credentials, fasting for women is not supported by any studies to date. On the contrary, fasting appears to have a detrimental impact on women, exacerbating symptoms of perimenopause including worsening of PMS, anxiety, insomnia and hunger. Fasting makes it difficult to meet the increased protein requirements that women have during menopause.

Personalized Protein Plan

	Day 1	Day 2	Day 3
Breakfast			
Morning Snack			
Lunch			
Afternoon Snack			
Dinner			

Pre-workout snacks

Post-workout snacks

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Protein Content of Food

Poultry (per 4oz.)

- Chicken Breast: 35g
- Turkey Breast: 34g
- Duck Breast: 24g

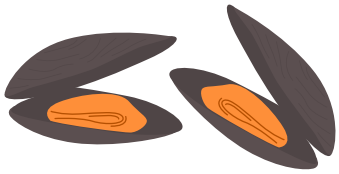
4 oz. of animal protein is about the size of a deck of cards, once it is cooked.

Red Meats (per 4oz.)

- Lean Ground Beef 33g
- Beef Sirloin: 34g
- Pork Tenderloin: 29g
- Pork Chop: 29g
- Lamb: 29g
- Bison: 33g
- Venison: 32g

Fish and Seafood (per 4oz.)

- Salmon: 29g
- Rainbow trout: 23g
- Arctic char: 23g
- Sardines: 28g
- Pickerel: 23g
- Mackerel: 23g
- Herring: 23g
- Tuna: 29g
- Cod: 25g
- Shrimp: 24g
- Mussels: 27g
- Oysters: 17g
- Clams: 22g
- Scallops: 20g
- Crab: 20g
- Squid: 19g
- Lobster: 21g
- Halibut: 22g

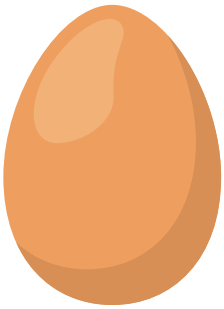


Add plant proteins to meals containing animal proteins. Combining the two gives yo the best of both worlds and can help you save money.

- Plant foods contain fibre, which is important for digestion and preventing cardiovascular disease
- Plant proteins tend to cost a lot less than meat, which is helpful if you are on a budget

Protein Content of Food

Eggs



- 1 large egg contains 6 grams
- Three egg omelette contains 18 grams
- Eat other proteins with eggs, like beans, cheese, fish
- Choose whole grain bread for toast with your eggs
- Make a frittata with veggies, cheese and leftover proteins

Dairy

- Cow's milk (whole, 2%, 1%, skim): 8 grams per cup
- Water buffalo, goat and sheep milk is slightly higher in protein
- Greek yogurt: 16 grams per 3/4 cup
- Kefir: 9 grams per cup
- Whey protein isolate: about 25 grams per scoop
- Cottage cheese: 23 grams per cup
- Mozzarella cheese: 8 grams per 1 oz.
- Cheddar cheese: 7 grams per 1 oz.
- Gouda cheese: 7 grams per 1 oz.
- Feta cheese: 4 grams per oz.
- Halloumi cheese: 7 grams per oz.

Non-dairy Alternatives

- Soy milk: 8 grams per cup
- Almond, Coconut and Oat milks contain up to 1 gram per cup
- Opt for soy milk if you are lacking protein, it is much higher

There is a lot of misinformation about dairy that I would love to debunk because it is a health promoting food for most people, with very few exceptions. If dairy causes you digestive issues and you would like more information, ask for my Dairy Guide.

Protein Content of Food

Legumes

- Peas (cooked): 8 grams per cup
- Lentils (cooked): 9 grams per 1/2 cup
- Beans (cooked): 7 grams per 1/2 cup
- Edamame: 17 grams per cup
- Tofu: 10 grams per 1/2 cup
- Tempeh: 15 grams per 1/2 cup

+chickpeas

Grain Products

- Quinoa (cooked): 8 grams per cup
- Rice (cooked): 2 grams per 1/2 cup
- Oats (cooked): 6 grams per cup
- Whole wheat bread: 4 grams per slice
- Barley (cooked): 4 grams per cup
- Corn: 5 grams per cup

Are you soaking your legumes and grains? If you have a vegan or vegetarian diet that relies on them to meet your protein requirements, soaking before cooking can improve digestion and nutrient absorption.

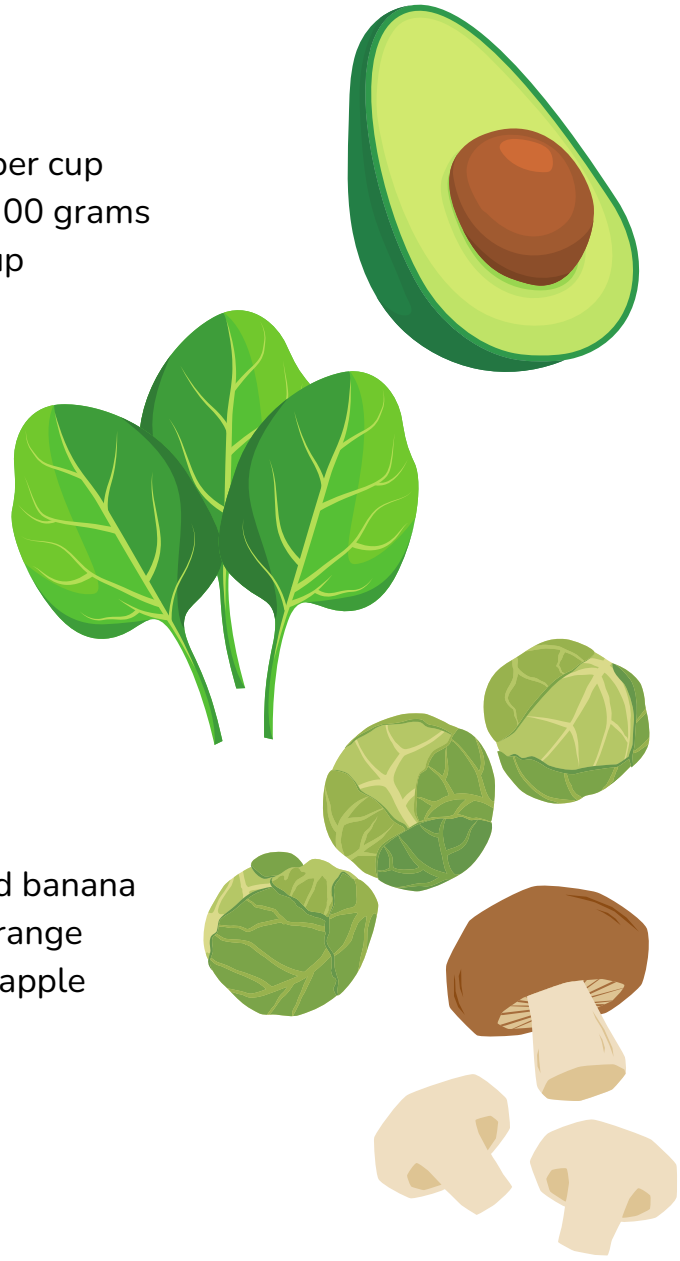
Nuts and Seeds

- Almonds: 1 ounce (about 23) 6 grams
- Walnuts: 1 ounce (about 14 halves) 4 grams
- Pistachios: 1 ounce (about 49 kernels) 6 grams
- Cashews: 1 ounce (about 18 nuts) 5 grams
- Peanuts: 1 ounce (about 28 peanuts) 7 grams
- Sunflower Seeds: 1 ounce (about 3 tablespoons) 5 grams
- Pumpkin Seeds: 1 ounce (about 85 seeds) 9 grams
- Chia Seeds: 1 ounce (about 2 tablespoons) 4 grams
- Flaxseeds: 1 ounce (about 3 tablespoons) 6 grams
- Sesame Seeds: 1 ounce (about 3 tablespoons) 5 grams
- Hemp Seeds: (about 3 Tablespoons) 10 grams
- Pecans: 1 ounce (about 19 halves) 3 grams
- Brazil Nuts: 1 ounce (about 6 nuts) 4 grams
- Macadamia Nuts: 1 ounce (about 10-12 nuts) 2 grams
- Pine Nuts: 1 ounce (about 167 nuts) 4 grams

Protein Content of Food

Vegetables and Fruit:

- Broccoli (cooked): 3 grams per cup
- Spinach (cooked): 6 grams per cup
- Brussels sprouts (cooked): 4 grams per cup
- Sweet potato (baked): 2 grams per 100 grams
- Cauliflower (cooked): 2 grams per cup
- Kale: 3 grams per cup
- Asparagus: 3 grams per cup
- Green Beans: 2 grams per cup
- Zucchini: 1 grams per cup
- Tomatoes: 1 grams per cup
- Potato: 3 grams per one medium
- Bell Peppers: 1 grams per cup
- Carrots: 1 grams per cup
- Cabbage: 1 grams per cup
- Eggplant: 1 grams per cup
- Radishes: 1 grams per cup
- Avocado: 3 grams per half avocado
- Banana: 1.3 grams per medium-sized banana
- Orange: 1 gram per medium-sized orange
- Apple: 0.5 grams per medium-sized apple
- Strawberries: 1 gram per cup



Fungi

- Mushrooms: 3 grams per cup

We can't rely on veggies and fruit to meet all of our protein requirements, but they are very important to include for the other nutrients they provide. Consume as much colour and as much variety as possible, on a daily basis.

Protein Cheat Sheet

What does ~40 grams of protein look like?

- Chicken breast (6 oz.) + greens + goat cheese + pecans + berries
- Salmon + Lentil Salad: salmon (4 oz.) + lentils (1/4 cup) + mixed baby greens + dressing of choice
- Beef + Quinoa Stuffed Peppers: lean ground beef (6 oz.) + quinoa (1/2 cup) + bell pepper + tomato sauce + herbs and spices
- Chickpea and vegetable curry served with quinoa
- Pork tenderloin + kale salad + pecans + apple slices
- Vegetarian Buddha Bowl: tempeh (6 oz.) + roasted sweet potatoes (1 cup) + quinoa (1/2 cup) + avocado slices + edamame + sunflower seeds + tahini dressing
- A protein-forward smoothie can easily contain 40-50g

What does ~20 grams of protein look like?

- Greek yogurt (3/4 cup) + nuts + berries
- Cottage cheese (1 cup) + Paprika + Salt + Pepper
- 3 eggs, cooked however you like them, with a slice of sourdough
- 2 eggs on top of greens and rice + black beans + avocado + salsa
- Tofu stir-fry: firm tofu (8 oz.) + mixed vegetables + rice or quinoa
- 1 can of tuna or salmon

What does ~10 grams of protein look like?

- 1 cup of milk or soy milk
- 2 hardboiled eggs
- 1/2 cup of tofu
- 3 Tbsp hemp hearts
- 3 slices of prosciutto wrapped around cantaloup slices

Grocery LIST

WEEK

DATE

PRODUCE

MEAT / FISH

GRAINS

LEGUMES / NUTS

DAIRY / EGGS

OTHER

What About Iron?

Lack of protein is a major cause of fatigue. Iron deficiency often occurs with low protein diets since iron is typically found in higher protein foods. Although iron is found in both animal and plant foods, the iron in animal sources is a lot easier to absorb. Digestive issues can affect iron absorption, but diet and digestion are not the only factors.

Athletes of any gender as well as people who menstruate are at risk for iron deficiency due to losing iron through profuse sweating and though their periods. Dietary restrictions can reduce iron intake, and digestive disorders and certain medications can reduce iron absorption.

Doctors tend to under assess for iron deficiency due to lack of knowledge as well as limitations on what is OHIP insured. The reference ranges on lab reports are inaccurate such that many people with iron deficiency have no idea unless it is severe enough to cause anemia, or impaired red blood cell formation. Iron deficiency causes a number of other problems long before anemia develops, such as:

- fatigue
- anxiousness
- depressed mood
- changes to fingernails
- hair loss
- poor exercise tolerance
- feeling easily cold
- pale appearance (inside the eyelids)
- shortness of breath
- heart palpitations
- headaches

Blood tests:

- ***Complete blood count***: if iron deficiency is severe, red blood cell production will be affected. This is called ***anemia***. Iron deficiency can be present and cause symptoms long before anemia develops; this is called ***iron deficiency without anemia***. If iron deficiency is suspected, we also need to test ferritin.
- ***Ferritin***: this tells us about the amount of iron you have in storage. Most labs flag ferritin as being low if the level is below 30 (previously 15) but it is considered optimal for ferritin to be above 100 in adults.
- ***Serum iron, transferrin saturation*** and ***total iron binding capacity***: if the blood count and ferritin level look normal but a person has symptoms of iron deficiency, these tests are important to confirm the diagnosis. Ferritin can become elevated in the presence of inflammation or an infection and this can mask an iron deficiency.
- Family doctors cannot order ferritin at the same time as serum iron, transferrin saturation and total iron binding capacity unless they specifically request this based upon a suspicion of iron deficiency or other findings of concern.

AJ ND

arankajones.com

Hey there!

If we haven't met, I'm here to help you navigate what feels like a massive ocean of health information – and steer you away from misinformation – on your quest for feeling better and living your best life. No woo, no wacky diets, and definitely no detoxes!

My approach is informed by evidence-based medicine and over 15 years of experience as a naturopathic doctor. Having witnessed the benefits and backfiring of alternative medicine as both a practitioner and a patient, I bring integrity, insight and intelligence to integrative care.

I have the luxury of time for educational conversations that empower individuals to take meaningful action and change the trajectory of their health. I am both an advocate for my patients and an ally to their health team, regularly collaborating with family doctors and specialists to provide the best possible care.

I am based in beautiful Collingwood and my virtual practice serves people across Ontario.

Clinical focus:

- perimenopause
- mental health
- adult ADHD
- digestive health
- prevention and healthy aging

Aranka Jones
naturopathic doctor

hello@arankajones.com
arankajones.com
@arankajones