



How We Are The Same

Individual differences in our needs are ultimately based on our genes and how environmental input has changed the rates those genes are expressed (mainly epi-genetics, gut bacteria, neuronal learning, metabolic and circadian setpoints). However, the same nutrition principles address the majority of the nutritional goals we have, including physical and mental performance, weight loss, energy levels, and recovery. What varies most are the symptoms we experience when we do not eat healthy, but the underlying driving forces behind those symptoms are usually the same: a loss of lean tissue from imbalanced hormones, meaning more stress hormones than beneficial ones. For most of us, the nutrition resolving our goals (that are different from each other) are the same and involve the core basic concepts of protein, vegetables, fats, and water. Carbs are more complicated since we do not need to consume any except right after physical activity to avoid that activity reducing our health (which you will feel it in the hours afterwards and even the next day). Any person doing physical activity at the same work load will lose a similar amount of carbohydrate calories, but different people have very different physical activity patterns, so carb needs are similar under similar circumstances, but we are all in different circumstances. For this reason, I will classify carb needs as being different for different people.

The bottom line: A 1-4 thumb (Tbsp) volume of dietary fats, 1-4 fist volumes of vegetables, 1/3-1 palm volume of protein (and of carbs if physically active) per meal are basic needs. Breakfast can be without vegetables, but in that case should not contain processed carbs. Lunch and dinner should contain vegetables whether carbs are present or not, and in particular if carbs are present. These principles are how we are the same.

- **Protein:** The RDA (recommended dietary allowance) for protein is from meta-analysis of the relevant research and therefore the reasonable starting point, meaning 0.8 grams of protein per day per kg body weight, assuming normal body fat levels (a bit less protein needed if you have higher body fat levels). For the average person weighing 50-100 kg person (110-220 lbs) this would correlate to 40-80 grams protein per day, or 13-26 grams per meal (3 meals / day) depending on their weight. Larger people tend to have larger hands so using volumes of the thumb, palm and fist for respectively fats, protein/carb and vegetables is a good place to start. Someone with small versus large hands might have an 8 versus a 16 ounce palm volume, with the average being somewhere in the middle. The 1/3-1 palm volume of protein would be based on the density of the protein, with egg and muscle tissue (fish, meat, poultry, etc) being the most dense, tofu and Greek yogurt less dense, regular yogurt and legumes less, and proteins high in water content (milk and soy milk) taking a full palm volume per meal. Recovery from surgery or hard exercise can double these protein needs. The biggest mistake in protein consumption is not in the amount, but rather knowing what is and what is not a protein. Avocado, hummus, nuts, nut butters, seeds, quinoa, amaranth, coconut, and coconut/almond/rice milks are insufficient in protein.
- **Carbohydrate:** We are not required to eat carbohydrate if adapted to ketosis, but physical activity will rob the bloodstream of the little glucose produced by the liver for the brain in ketosis, making exercise while in ketosis complicated. This is why, if you are physically active, I recommend the same volume of carb as you are eating in protein, with an emphasis on whole fruit, legumes (lentils and starchy beans e.g. kidney, black, or garbanzo beans), or whole unprocessed tubers (yams) and grains (steel cut oats, wheat groats, or quinoa). Processed carbohydrate, which do not look the same as when they are directly harvested from the Earth, digest much faster and increase both body fat and disease risk even if you do not notice it on the scale or in the mirror. Eating processed carbohydrate, it is entirely possible to go up in body fat without over-eating calories because of how fast they enter the bloodstream. Always pair processed carbohydrate with vegetables to slow their digestion.
- **Vegetables:** Nutrient supplements do not hold a candle to the health value of fresh vegetables. They are central to slowing digestion of our meals for steady nutrient delivery, providing a cornucopia of nutrients to drive health beyond just basic immediate needs, and provide satiety without which we would have to overeat calories to obtain. Breakfast tends to be low in vegetables (if any) for most people, but lunch and dinner without is a mistake that will ultimately require healthier eating later on as disease risk slowly accumulates. If you change nothing else in your nutrition, add vegetables to whatever you are eating at lunch and dinner. One fist if raw vegetables, a bit more if lightly cooked, and 2-4 fist volumes if leafy greens, depending on how important your health has become for your situation or your motivation levels.
- **Fats:** We all need omega-3 (fatty fish, chia or flax seeds) and omega-6 (highest in nuts and seeds) because our body cannot make them. We also benefit from omega-9 (mono-unsaturated fat) in avocado, olive and olive oil. Since these foods are high in calorie density, we only need 1-4 thumb volumes of them, not palms or fists (!).
- **Water:** 1 Liter (32 oz) per 1000 Cal we are eating, evenly spaced through the day, at least half of this pure water.