## 10 Essential Characteristics of a Healthy Diet

## By Alan Aragon

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What is health? According to the World Health Organization, health can be defined as having complete physical, mental, and social well-being; not merely the absence of disease or infirmity [1]. There are tons of fad diets, and most of them are not just ridiculous, but unhealthy—for not just the body, but the mind as well. Yup, most fad diets indeed make people measurably dumber, in addition to having poor long-term effectiveness. The purpose of the following discussion is to clarify the qualities that comprise a healthy diet. Note that these are not in any particular order of importance.

- 1) A healthy diet respects personal taste preference. Consider for a moment the absurdity of the following statement: "A diet consisting mostly of foods you hate is ideal for long-term adherence." Now switch the word "hate" with "love" and it just makes so much sense—almost a "well-duh" level of sense. What's amazing to me is that the principle of honoring personal preference is probably the most over-looked and under-utilized weapon in the dieter's arsenal. I've said many times in various forums that honoring personal preference is the most powerful determinant of long-term adherence. This isn't just a pet intuition of mine, there's science to support it. Wu and colleagues recently did an impressively thorough review of the full range of diet types, from low-carb to low-fat, and virtually everything in-between [2]. Their conclusion is worth quoting: "Moreover, the difference in weight loss among these diets is only 1-2 kg or less, which appears to be of little clinical significance. Thus, overweight and obese people can choose many different weight-loss diets on the basis of their personal preferences."
- 2) A healthy diet provides enough total energy to support physical & mental performance goals, as well as healthy body composition. A diet shouldn't just suit your personal taste preferences, it should also provide adequate energy to optimize the performance of every move you make. The heart of this involves eating enough calories (and nutrients). There's a very broad range of physical activity demands across individuals. Competitive athletes at the elite level can have 2-4 times (or more) the total daily calorie requirements of deskbound weekend warriors. While obesity from chronic overeating is a major public health problem, the other side of the coin is that chronic over-dieting is common among athletes of all levels. The *female athlete triad* is a pathological progression that begins with disordered eating and/or under-eating, which leads to the disruption & cessation of the menstrual cycle, and finally a decrease in bone mineral density that can ultimately manifest as osteopenia or osteoporosis [3]. One of the

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cornerstones of preventing the triad's progression is simply eating enough to maintain a healthy weight and body composition. According to perhaps the most diligent research in this area, normal ranges for body fat percent were 13.4-21.7% for men and 24.6-33.2% for women [4]. These ranges reflect earlier research by Abernathy and Black, who reported that the best health is seen fat percentages averaging between 12-20% for men and 20-30% for women [5]. Some may look at those ranges and immediately think of elite athletes who are far leaner. Newsflash: elite athletic performance and optimal health do not always run parallel. In fact, the nature of sport is often to challenge the limits of human survival under the most stressful conditions.

- 3) A healthy diet covers macronutrient and micronutrient needs. This seems rather obvious, right? Too bad people routinely mess up both aspects. Macronutrition—protein, carbs, and fat—is an area that's ripe for creating boundless fallacies and quacky lore. One of the best freely available tutorials on calculating energy and macronutrient needs is by my friend and colleague (and fellow forum moderator) Emma-Leigh Synnott on the Nutrition forum of Bodybuilding.com in this thread. I copied this information here in case the forum glitches for whatever reason. As for micronutrition, it's not easy to meet the recommended amounts of all the essential vitamins and minerals. In fact, a recent study published in the Journal of the International Society of Sports Nutrition assessed the micronutrient sufficiency of four popular diets and found them to be, on average, 56.48% deficient in meeting the recommended amounts, lacking in 15 out of the 27 essential micronutrients analyzed [6]. These findings underscore the importance of predominating the diet with a variety of whole and minimally refined foods within and across the food groups. These findings also show the importance of being extra cautious about eliminating foods or food groups when dieting, which already carries an inherent risk for incurring nutrient deficiencies.
- 4) A healthy diet has no unnecessary/unfounded food restrictions. One of the worst offenders in this area is the Paleo diet, which bans nutritious foods like grains, legumes, and dairy. The rationale for eliminating these foods is that they're harmful to health. This is a bold claim that lacks scientific evidence [7]. In the case of grains, the focus is on either celiac disease or non-celiac gluten intolerance. Conservatively speaking, over 90% of the world does not have either condition [8,9], and therefore can safely consume gluten-containing foods. Furthermore, the types of commercially available gluten-free grains outnumber gluten-containing grains by more than double. What's ironic is that the Paleo diet aims to ban problematic foods, yet allows 4 of the 8 major allergens identified by the by the Food Allergen Labeling and Consumer Protection Act [10]. Of course, it's doesn't make sense to issue a universal ban on foods that cannot be tolerated by the minority of the population. Legume banning is silly. They are a staple food of some of the healthiest populations on Earth [11]. There is an abundance of their health

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benefits in and a scarcity of evidence of harm [12]. As for dairy, milk in particular has more protein and calcium per calorie than any naturally occurring food on the known planet. And in my personal opinion, a life without milk, yogurt, cheese, or butter would kind of suck. Here's a memorable excerpt from Heaney and Rafferty's research on the nutritional contributions of milk [13]: "NHANES 1999–2000 and CSFII 1994–1996 analyses of food sources of calcium, vitamin D, protein, phosphorus, and potassium reveal milk to be the number 1 single food contributor of each of these bone-related nutrients with the exception of protein in all age groups of both sexes..."

- 5) A healthy diet respects individual medical intolerances/allergies. At the same time that certain food restrictions are based on pseudoscience, imagination, and gimmickry, there are individuals with various food intolerances, allergies, or drug-related contraindications that require the strict avoidance of certain foods. However, it's worth noting that sometimes there can be flexibility in these matters. For example, Wilt and colleagues found that the majority of individuals diagnosed with lactose intolerance can have up to 12 grams (equivalent to 1 cup of milk) in a sitting with minimal to no symptoms, particularly if consumed with other foods [14].
- 6) A healthy diet is convenient. In other words, a healthy diet shouldn't feel like a pain in the ass. Tupperware and coolers can be useful, but not when they become an obligation every time you have to leave the house for more than two hours. The idea that everyone must eat multiple, tiny meals throughout the day in order to "stoke the metabolism" is so mythical and so incorrect. Multiple controlled studies comparing low and high meal frequencies have failed to detect differences in thermogenesis in the short term, and the influence of meal frequency on body composition in the long-term has yielded equivocal results [15]. The pendulum swings the other way, where folks think special adaptations result from lengthy stretches of fasting, but that's equally wishful and lacking scientific support. Meal frequency should therefore be based on personal preference and individual tolerance. Point blank, there's no magic with extreme lows or extreme highs in meal frequency.
- 7) A healthy diet is affordable. One way to over-pay for food is by subscribing to the organic label, which often doubles the price. But is it worth it? Thus far, a substantial body of research evidence says no. Consecutive systematic reviews have recently concluded that there's no difference in nutrient quality or nutrition-related health advantages between organically and conventionally produced foodstuffs [16-18]. Another way to over-pay is through supplements. While there are cases where supplementation is useful for either exercise performance [19] or preventing nutrient deficiency [6], the majority of products range from an inert waste of money to a dangerous waste of money. Something I found interesting was how explorer/author Dan

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Buettner reported that the Blue Zone populations don't take any supplements at all, yet they are the world's longevity champs with the lowest rates of chronic and degenerative disease [11].

- 8) A healthy diet is socially acceptable (and not hazardous to the public). I realize that people have all kinds of bizarre eating rituals and proclivities. However, when it lowers the comfort level, raises the anxiety level, or worse yet—endangers those around them, that's when it goes too far. One obvious example (aside from non-consensual cannibalism) is the dichotomous nature alcohol consumption. While a moderate intake (i.e., 1-2 glasses per day of wine) has been associated with health benefits [20], abusing alcohol can affect nearly every bodily system [21]. Another thing that can cause social disharmony is the judgment of others based on their diets, which brings us to the next point.
- 9) A healthy diet is compatible with personal ideologies. Personal ideology refers to someone's personal or subjective beliefs that frame their food choices. For example, vegetarianism is an ideological choice that many people decide to make. A healthy diet for vegetarians would be one that follows the rules that the individual decides to impose within the chosen variant. There is a multitude of ways to compose nutritionally complete diets that happen to have philosophical, cultural, or religion-based restrictions. It's not healthy for people to feel pressured to force foods that don't fit with their ideologies. Now, here comes the disclaimer. If you have truly wacky ideologies and think that going on 40-day water fasts is a good idea, less power (and sanity) to you.
- **10.** A healthy diet is sustainable in the long-term. Any diet you cannot permanently adhere to is simply not a healthy diet. Fad diets fall into this category, although some folks are tenacious enough to drag them out for a good, long time before realizing how pointless it is. The good news is that people can achieve long-term adherence by individualizing their diets to suit their personal preferences, tolerances, goals, and ideologies.

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