



## GLOBAL DAIRY PLATFORM

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### **EAT to Your Heart's Desire? Maybe Not New Study Indicates EAT Diet Can Produce Micronutrient Shortfalls**

The [EAT Lancet Commission Report](#) was released to great fanfare in 2019. The report's authors (dubbed Commissioners) indicated that the current global food system was threatening both human health and the environment, necessitating a global transformation in the ways we produce and consume food.

The recommended EAT Diet called for dramatic increases in the amounts of fruits, vegetables and nuts we consume (roughly half the plate), with the remainder consisting of primarily whole grains, plant proteins (beans, lentils, pulses), and unsaturated plant oils. Modest amounts of meat and dairy (in some cases little or none) and some added sugars and starchy vegetables were also suggested.

#### **The EAT Diet Has Received Criticism on Several Fronts**

While aspects of the diet have their merits, it has been heavily criticized by numerous health experts and organizations for various reasons. Initially, the diet was panned for promulgating a one-size-fits-all approach to sustainable eating, failing to adequately consider cultural or regional differences in the way people eat or produce food ([Navarre et al.](#) have estimated that almost half of the global population (~3.7B people) live in countries without enough land to source an EAT-style diet). It has also been criticized for not focusing enough on the nutritional needs of young children, being too expensive (especially for people in developing countries) and relying almost exclusively on models and epidemiological data, rather than controlled, empirical evidence to generate recommendations.

But the area of most criticism is related to the nutrient shortfalls that may occur by strictly adhering to EAT diet principles. A recent paper by [Beal et al.](#), entitled *Estimated micronutrient shortfalls of the EAT-Lancet planetary health diet*, bears this out. The authors (one of whom was an original EAT Commissioner) indicate that by limiting animal-sourced foods like dairy and meat, people (in this instance adults and women of childbearing age) run the risk of inadequate intakes of vitamin B12, calcium, iron, and zinc, among other things. The authors suggest that the best way to fill these micronutrient gaps is to consume more minimally processed, nutrient-dense foods and to pay more attention to the matrix effects of foods (the interactions among whole food components that can impact nutrient absorption, satiety, and immunity), and less to individual nutrients. Their practical solution: increase animal-sourced food intake from 14% of total calories in the EAT diet to roughly 27% of calories and limit phytate intake (a compound in many plant foods that impedes the absorption of key nutrients like iron and zinc) by reducing daily whole grain, pulse, tree nut, peanut, and soy food intake by a significant amount. In other words, their recommendations largely

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turn the EAT recommendations on its head. A doubling of animal-sourced food intake, and fairly dramatic decreases in grain, pulse and nut intake is not what the EAT commissioners had in mind. Beal et al. admit that while their recommendations may solve the micronutrient shortfall issue, they are not intended to address environmental effects, NCD risk, or affordability, and should be viewed as such.

### Earlier Reports Pointed Out Nutrient Shortfalls as Well

Regardless, the Beal paper was far from the first report indicating the nutritional inadequacies associated with EAT. An early analysis by nutrition researcher [Zoe Harcombe](#) (admittedly, not in a peer reviewed publication) suggested that the EAT diet provided only 17% of the recommended intake of retinol, 5% vitamin D, 22% of sodium, 67% of potassium, 55% of calcium and 88% of iron. And, she reported, this analysis did not even take into consideration the low bioavailability of these nutrients in many plant-based foods.

Protein is another at-risk nutrient in the EAT diet, or any diet comprised primarily of plant sourced foods for that matter. It is worth remembering that, according to FAO data, over one billion people globally do not consume enough protein.

In a recent article, [Dr. Paul Moughan](#) says sustainable diet regimens like EAT often express protein intake on a gross protein basis (i.e., 4 grams of protein from grains are the same as 4 grams of protein from milk), but this ignores several critical factors including the amino acid composition of plant vs animal-sourced proteins, as well as the digestibility of the protein. These factors are at the core of what constitutes a high-quality protein food, and it is a fact that most plant foods do not contain as much high-quality protein as animal-sourced foods. Especially when dealing with people who live in regions where high-quality protein sources are rare or expensive, the quality and quantity of the protein one consumes can be a matter of life and death. And while some health professionals in more developed countries minimize the importance of protein quality by suggesting that “we all eat too much protein anyway,” several demographic groups, including young children, women of childbearing age, pregnant or nursing women, very active people, sick people, and the elderly tend to consume sub-optimal levels of protein, even in well fed populations.

### New FAO Report Cites Data on the Importance of Animal Sourced Foods

The [FAO](#) just released a report entitled *Contribution of terrestrial animal source food to healthy diets for improved nutrition and health outcomes*, in which they state “...consumers may choose veganism, or a pescatarian diet, but meat, eggs, and milk offer crucial sources of much-needed nutrients which cannot easily be obtained from plant-based foods.” The report gleans evidence from more than 500 published papers and 250 policy documents and offers some of the strongest evidence to date on the important health and development functions of animal-sourced foods. Data from this report may well have implications for future EAT deliberations, as well as recommendations put forth by other organizations/committees in the future.



### What's Next?

The EAT Commission members have apparently gotten the message because they are currently preparing a follow-up report (EAT 2.0) that will purportedly address several of the criticisms that have been raised since the release of their initial report. Issues such as diet affordability and attainability, particularly in developing countries, and a greater emphasis on regional and local diet needs will apparently be addressed.

Global Dairy Platform is monitoring the Commission as it prepares its updated report and will provide evidence on behalf of animal-sourced foods as warranted. One thing is certain: developing a global diet that satisfies the needs of every region in the world, is simultaneously healthy, environmentally friendly, and affordable to all is a tall, if not impossible, task. The EAT Commission is to be applauded for tackling this issue, though it is our hope that future iterations of the Report will more fully address the complex issues of diverse global diets, as well as the nutritional implications associated with such dramatic dietary changes.