

Zinc Intake Versus Zinc Absorption: A Bioavailability Factor

The study by Akhter et al. was very well designed.¹ There is a need to perform these kind of studies in other countries, especially in developing countries, to investigate zinc intake and intakes of other micronutrients.

In the case of zinc, the lack of a reliable index to estimate zinc nutrition status makes too difficult the screening of different populations for a possible zinc-deficient state. Therefore, the knowledge of regular zinc intake in common diets is a useful tool. However, as shown in some recent research, it is important to consider not only the amount of zinc ingested with the diet but also the quality of that zinc.²⁻⁹ The chemical compositions of the zinc sources and the nutrition matrix can modify zinc absorption. Therefore, the bioavailability of zinc in food is as important as zinc food content. Unrefined cereals and some legumes have high zinc content but also contain phytic acid and phytates that produce insoluble zinc compounds inhibiting zinc absorption, making them a poor zinc source. In general, the diets of developing countries have high levels of phytate and tannin and low levels of zinc-enhancing compounds, thereby decreasing zinc absorption; this is one of the more important nutritional causes of zinc deficiency. It would be interesting to use these facts in future research.

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