

Immunity-Boosting Supplements: Fact or Fiction?

With the arrival of Covid-19, our pantry at home underwent a full revamp; soaked *methi* seeds, packets of *amla* powder, citrus fruits in abundance, and new concoctions of *kadha* every morning. The pantry wasn't the only place being restocked; our medicine cabinet bore the brunt of the pandemic too. Packets of *Limcee*, boxes of Zinc-Magnesium supplements, and capsules of Vitamin D3 became a staple part of our diet. The internet was abuzz with new nutraceutical products and Ayurvedic brews which claimed to “boost” one’s immunity as people frantically googled ways to protect them from this unfamiliar malady.

A study conducted by Macedo et al (2019), involving the analysis of 185 websites that returned from a Google search on “boost immunity”, showed that out of the 37 approaches recorded to boost immunity, the top ones were diet (77% of webpages), fruit (69%), vitamins (67%), antioxidants (52%), probiotics (51%), minerals (50%), and vitamin C (49%). According to the infosphere created around us, we can manipulate our immune systems and become “healthy” just by popping a few supplements every night. To quote Satyajit Rath (Immunologist, IISER, Pune, India) from one of his interviews with The Print (Ramesh and Basu 2020), “Immunity boosting is a quintessential example of individual consumerism that a capitalistic society depends on”. He also said that these businesses and market forces propagate the idea that one can conveniently ignore larger issues like community health and hygiene and simply purchase some remedies that provide individual protection, which is very detrimental for our collective health.

It is safe to say that these supplementary vitamins and minerals play more of a role in immunity “maintenance” than immunity “boosting”. An analysis by FAO (Food and Agriculture Organization) showed that millions of Indians above the International Poverty Line could not afford a nutritious, balanced diet. Even if we choose to keep affordability aside for a minute, the authenticity of the produce we buy from a vendor is highly questionable when we live in the era of injectables, pesticides and chemical fertilizers. Supplements are needed to provide our bodies with the required amount of micro and macronutrients, which are essential for the healthy functioning of our organ systems, and as an extension, our immune systems. However, most of



the websites like to suggest that these products are not just for maintaining health, but for “boosting” immunity. This gives the term ‘immunity boosting’ a wider meaning, making it another vague, ubiquitous phrase used as a marketing gimmick by the nutraceutical industry. In my opinion, if an individual exercises, has a balanced diet, drinks responsibly, and has no pre-existing health conditions, then they do not require any such supplements as their own bodies are more than capable of looking after themselves. Ram Vishwakarma, former chief of CSIR’s Indian Institute of Integrative Medicine said, “There is no conclusive, unequivocal clinical proof of efficacy for most nutraceuticals or “immunity-boosting” foods”, and that these claims about boosting immunity were unscientific and irrational (Ramesh and Basu 2020)

However, as suggested by studies, several Indians face a deficit of vitamins in their diets, especially Vitamin C and D, which are vital to a healthy immune system and might require external sources to fulfill their requirements for the same. Therefore, it seems like the term “boost” is somewhat wrongly placed in this context, as boosting suggests increasing one’s immunity above the average level, while all these products can help us do is avoid immunodeficiency due to malnutrition or an unhealthy diet. Another interesting point in this whole narrative is that out of all the websites assessed by Macedo et al., only 12% of the webpages mention vaccines, the only approved means of actively boosting immunity against pathogens. Even though none of the websites had anything negative to say about the vaccines, factually correct information must be disseminated more rigorously than food fads and marketing gimmicks, especially when novel diseases like Covid-19 unfold in front of us.

Source: Macedo et al. (2019) <https://doi.org/10.3389/fmed.2019.00165>

Ramesh and Basu (2020) <https://theprint.in/health/immunity-boosters-are-a-myth-why-you-shouldnt-believe-claims-that-promise-to-fight-covid/470202/>

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