

'Nutritious food can ensure best response to vaccine'

Director of the National Institute of Nutrition, **Dr Hemalatha**, answers questions from **TOI** readers on the ideal diet to boost immunity, importance of a balanced meal and why mixing oils might be beneficial

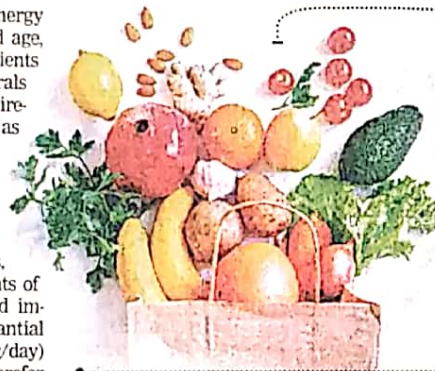
■ I am an egg vegetarian and lactose intolerant (I can eat cheese but not milk or curd). What diet would you suggest to keep my protein intake good? Can I supplement my vitamin intake with tablets or drinks?—Sharath R
Yes, eggs and milk provide all nine essential amino acids (EAA). One whole egg is equal to 30g of lean meat, poultry or fish. But one egg can provide only 12% of the daily requirement of protein along with many other nutrients (vitamins and minerals). As for cheese, it is high in protein, as well as vitamins A, D, E, B12, and calcium. If you enjoy cheese, you can continue taking cheese as it is a good source of quality proteins and other nutrients. In case of vegetarian diets, although certain EAAs are lower, and some of them are not available in individual food groups, a well-balanced diet can supplement all the required EAA. Even protein requirements can be met with pulses, beans, legumes, peas and nuts etc. For proportions of different food groups, to maintain good health, our institute has recommended "My plate for the day", which can be accessed at https://www.nin.res.in/downloads/My_plate_for_the_day.pdf

■ I am 76-years-old and suffered from Covid-19/pneumonia in January. Though I have recovered now, I'm also borderline diabetic. Please suggest a suitable diet to boost immunity.—Raghuram B
In general, the nutritional requirements of older adults are more or less similar to that of the general

adult population. Though the energy requirement is reduced in old age, requirements of other nutrients such as vitamins and minerals remain the same; and the requirements of some nutrients such as vitamin D and calcium are increased to improve bone density. The elderly is, therefore, encouraged to consume nutrient-dense foods such as nuts, oilseeds, fruits, vegetables, legumes and moderate amounts of animal source foods. For good immune response: Ensure substantial servings of fresh fruits (100g/day) and vegetables (300g/day), prefer whole grains and include nuts in your daily diet. Avoid consumption of highly processed foods, fruit juices and carbonated drinks. Thoroughly cooked meat/poultry may be included in moderation.

EXPERT ADVICE

■ There are a lot of myths around food these days. Though it is summer, many suggest avoiding cold drinks, ice-creams and cold fruit juices given the risk of a second Covid wave. Do you think it's necessary?—Parimala G Tadas
Yes, in general, it's good to avoid these things during any season. These foods are only refined sugars (also fats in ice creams), which lack nutrients. Calorie dense, nutrient poor diets impair immune response. For example: Micronutrients (vitamins and minerals) and phytonu-



Using two or more vegetable oils will ensure that the fatty acid balance is maintained and one gets the benefit of minor components present in them

trients that are high in fresh fruits, vegetables, greens, nuts, and whole grains play a crucial role in several metabolic pathways that aid in optimal immune function and appropriate response to the vaccine. They also keep inflammation under control.

■ I am a housewife and regularly use mustard oil for cooking. I read somewhere that oil should be changed or mixed. Can you suggest the right mix and how does it help in deriving nutrition?—Sumitra Ghosh
Each vegetable oil has a unique fatty acid composition and minor components. Complete dependence on just one vegetable oil does not ensure optimal intake of all fatty acids. Hence ICMR-NIN recommends use of two or more vegetable oils for optimal health benefits. By selecting

lemons, and limes and pineapples must be avoided on an empty stomach to prevent acidity.

■ What is the right temperature for storing cooked food in a refrigerator? And how long can I keep it in the refrigerator?—Pranesh Raj
Cooked food should be refrigerated within two hours if one does not intend to consume within 4 to 5 hours of preparation. Our recent studies show that cooked food can stay safe up to 6 hours at room temperature and can be used up to 4 days if stored in refrigerators, which is ideally maintained at 40C. Storing food at this temperature will reduce the pace of multiplication of bacteria.

■ I am 60 years and post the pandemic, I have been losing weight consistently, despite eating all meals. I am also diabetic and insulin-dependent. What supplements can I take to build immunity and strength?—Syed Mubbasher Mehdi
Losing weight without any conscious effort from your side is a

warning signal that you need to consult a physician immediately.

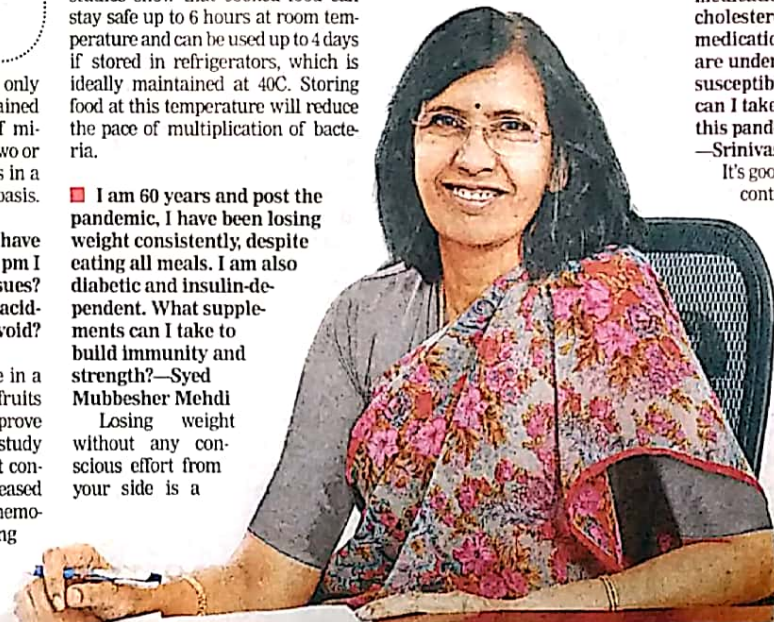
■ Since both of us are working, it sometimes gets impossible to cook every day and we resort to ordering in. Many say we should avoid it, especially with Covid. What are your thoughts?—Pankaj Kumar
Whether you prepare at home or order from outside, every meal should be balanced. Be aware that

you may get almost your total calories required for a day from just one full fried rice/biryani, restaurant curries, or a big burger. These can be very high in calories as they add a lot of fat and use refined cereals with little or no vegetables.

If you order healthy diets that contain a good proportion of all food groups prepared from fresh foods, contain no sugar, are limited in salt and fats/oils- it should not be an issue to your health. But as for the Covid issue- take all necessary precautions.

■ Apart from diabetes, I have also been prescribed mild medication for hypertension and cholesterol control. Though with medication, all the parameters are under control, I fear being susceptible to infections. How can I take care of myself during this pandemic?—Srinivasa Rao Nandula

It's good that your sugar is under control and blood pressure is maintained. People with poorly controlled diabetes are likely to be at higher risk of infections and complications. You may not be at higher risk as all parameters are under control. Nevertheless, like every one, you must also follow hand hygiene, physical distancing and wearing a mask. As mentioned above include adequate quantities of healthy foods in your diet.



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