

## Nutritional Needs of Corona Virus (COVID-19) Patients

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Dear Sir,

Through your esteemed journal we would like to draw readers attention towards nutritional needs of patients suffered from Covid-19.

Covid illness (Coronavirus), an irresistible infection, is a worldwide pandemic. It spreads through tarnished air-beds of contaminated people<sup>1</sup>. The endurance of infection is reliant on a superficial level and positive ecological conditions keeping it alive from a couple of hours to a couple days<sup>2</sup>. The vast majority have gentle illness and improve well. In understanding the course of the infection, we intend to expand the point of view to the nutritional needs of patients suffered from Corona Virus infection.

The people should follow strict SOPs to prevent the spread of infection, especially while purchasing food items. Primary prevention requires strict guidance for food hygiene, food packaging hygiene and water hygiene<sup>3</sup>. Food Safety and Standards Authority of India (FSSAI) has put up the most accessible efforts to ensure easy, affordable, safe and wholesome food for the country and prevent further transmission of COVID-19 during this public health crisis. It has been tabulated systematically in Table-1<sup>4</sup>.

For patients with gentle to direct disease (home isolated or clinic ward isolated), Medical Nutritional Therapy (MNT) contains the gainful part of essential, optional and early tertiary degrees of counteraction with the suggested measure of energy target is 25-30 kcal/kg/day while for fundamentally sick patients, MNT involves the useful function of late tertiary degrees of anticipation for patients approved in basic are with the suggested measure of energy target will be reached to 30 kcal/kg/day arranged preferably and very much dispersed for the duration of day<sup>5</sup>. Meeting such an objective gets hard to accomplish in extreme conditions which may require imbue of glucose-containing fluids, (for example, dextrose: 3.4 kcal/g, glycerol/glycerol: 4.3 kcal/g) and fat-containing fluids, (for example, propofol: 1.1 kcal/ml) and so on Standard ICU takes care of are arranged hypocaloric (0.8kcal/ml) for commencement, advancing to isocaloric (1kcal/ml) and hypercaloric (up to 1.5kcal/ml).

For patients with gentle to direct contamination (essential and auxiliary degrees of avoidance), the suggested measure of protein target is 20-25% of the calories while for basically sick patients (tertiary degrees of counteraction), 25-30% is unmistakably arranged and very much circulated for the duration of the day considering protein saving activity. It can likewise be assessed as 1.2-1.3 g/kg/day and 1.3-1.5 g/kg/day for mellow to direct and fundamentally sick patients separately (determined from ideal body weight).

Two patients with gentle to direct contamination (essential and optional degrees of avoidance) and basically sick patients (tertiary degrees of anticipation), the suggested measure of fat objective

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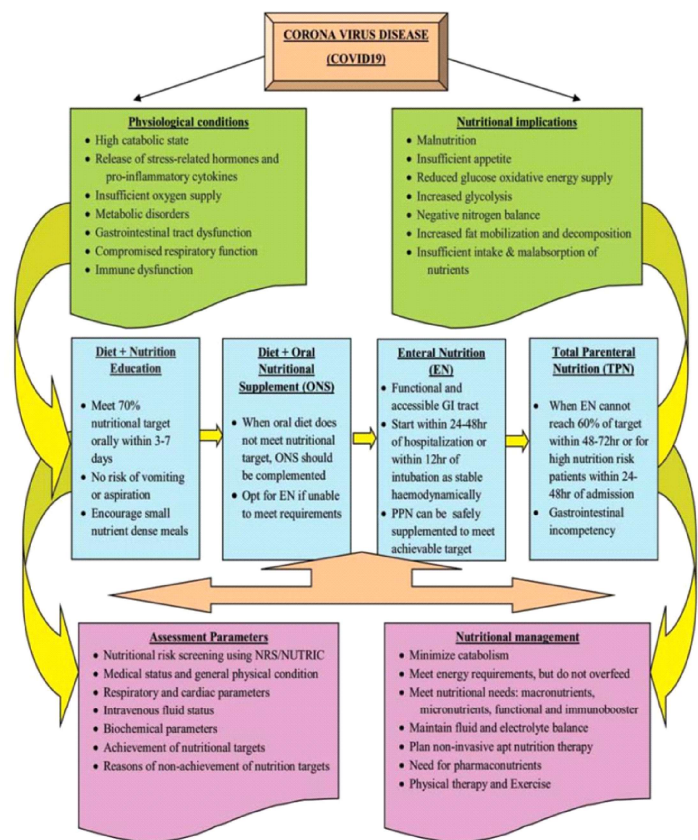
is 25-30% of the all-out energy, unmistakably arranged thinking about fat retention and digestion<sup>6</sup>. To meet such an objective, an assortment of cooking vegetable oils, particularly monounsaturated fat vegetable oils can be utilized while the utilization of medium and long chain unsaturated fats is liked to improve oxidative use of unsaturated fats. Irregularity of intravenous infusion of fat can prompt lipid over-burden. It is a useful parameter, to decide the kind of nutritional support required to provide nutrition intervention. Figure- I showing nutritional requirement of COVID-19 pandemic<sup>7</sup>.

**Table:1** Showing safety guidelines for food purchase, cooking and storage.

During purchasing
<ul style="list-style-type: none"> <li>◆ Take precautions while grocery shopping                             <ul style="list-style-type: none"> <li>✓ Maintain a distance of at-least 1 meter from others</li> <li>✓ Don't touch face after coming in contact with outside objects</li> <li>✓ Limit the number of trips to the store</li> </ul> </li> <li>◆ Keep food safety in mind while buying essential items                             <ul style="list-style-type: none"> <li>✓ Wash fruits and vegetables, milk packets before use</li> <li>✓ Clean packets of food items before storing</li> <li>✓ Use a cloth bag and avoid plastic bag</li> <li>✓ Carry your own clean shopping bag and wash it thoroughly with soap, disinfectant and clean water</li> <li>✓ Immediately wash hands after coming from outside without touching other objects</li> </ul> </li> <li>◆ Limit highly processed foods</li> <li>◆ Plan what to buy and avoid panic buying behaviour that cause increase in food prices, overconsumption of food, unequal distribution of products and food wastage</li> </ul>
During cooking
<ul style="list-style-type: none"> <li>◆ Ensure safe cooking practices at home                             <ul style="list-style-type: none"> <li>✓ Wash hands frequently with soap and water specially before handling raw, cooked or ready-to-eat food items and after handling kitchen waste</li> <li>✓ Keep hair neatly combed and tied</li> <li>✓ Keep nails short and clean</li> <li>✓ Wear clean clothes</li> </ul> </li> <li>◆ Use fresh ingredients that have a shorter shelf life first over non-perishables.</li> <li>◆ Wash raw vegetables and fruits thoroughly to remove all visible dirt under running water.</li> <li>◆ Packaging like cans can be wiped with a disinfectant before being opened or stored.</li> <li>◆ Always wash utensils and plates before use</li> <li>◆ Avoid handling food if you are ill</li> <li>◆ Keep your gadgets (phones, laptops, mouse etc) clean</li> </ul>
During storing
<ul style="list-style-type: none"> <li>◆ Refrigerate left-over food immediately</li> <li>◆ Clean refrigerator thoroughly inside out</li> <li>◆ Keep food safe in times of social distancing</li> <li>◆ Keep food safety in mind while storing food</li> </ul>

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**Fig 1.** Showing nutritional requirement of patients according to their condition

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