








Nutrition Intake for COVID Patients

Recommended intakes of certain nutrients with key roles in disease susceptibility and the maintenance of an adequate immune function.

Nutrient	Immune Function	Recommendation		Foodstuffs containing the Nutrient
		Healthy Individuals	Diseased/Infected Patients	
Vitamin C	<p>Maintenance of functional and structural integrity of mucosal cells in innate barriers</p> <p>Normal functioning of T cells</p> <p>Antimicrobial, anti-inflammatory and antioxidant effects</p> <p>Antibody production</p> <p>Reduction of respiratory tract and lung infection risk</p>	200 mg/day	1–2 g/day	<ul style="list-style-type: none"> • <u>Citrus foods such as Oranges, lemons</u> • <u>Strawberries</u> • <u>Peppers</u> • <u>Potatoes</u> • <u>Broccoli</u> • <u>Plums</u> • <u>Guavas</u> • <u>Kiwi</u> • <u>Papayas</u> 
Vitamin D	<p>Maintenance of functional and structural integrity of mucosal cells in innate barriers</p> <p>Normal functioning of T cells</p> <p>Antimicrobial, anti-inflammatory and antioxidant effects</p> <p>Antibody production and antigen responses</p> <p>Reduction of respiratory tract and lung infection risk</p> <p>Alleviation of the inflammatory response</p>	2000 IU/day (50 µg/day)	10,000 IU during few weeks, followed by 5000 IU (until 25–hydroxyvitamin D concentration rises above 40–60 ng/mL (equivalent to 100–150 nmol/L))	<ul style="list-style-type: none"> • Fish • Red meat • Egg Yolks • Cod Liver oil • Cheese • Food fortified with Vitamin D like Dairy Products 

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Vitamin E	<p>Maintenance of functional and structural integrity of mucosal cells in innate barriers</p> <p>Differentiation, and functioning of innate immune cells</p> <p>Anti-inflammatory and antioxidant effects</p> <p>Antibody production and antigen responses</p> <p>Reduction of respiratory tract and lung infection risk</p> <p>Support of T cell-mediated immunity</p>	15 mg/day (RDA)	200 IU/day	<ul style="list-style-type: none"> • Sunflower oil • Sunflower seeds • Soyabean oil • Peanuts • Almonds • Pumpkin • Spinach 
Selenium	<p>Differentiation, and functioning, of innate immune cells</p> <p>Normal functioning of T cells</p> <p>Antibody production</p> <p>Antimicrobial, anti-inflammatory and antioxidant effects</p>	50 µg/day	Up to 200 µg/day	<ul style="list-style-type: none"> • Egg • Flax seeds • Sunflower seeds • Wheat • Brown rice • Mushrooms • Chia seeds • Barley 

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Zinc	<p>Maintenance of functional and structural integrity of mucosal cells in innate barriers.</p> <p>Differentiation, and functioning, of innate immune cells.</p> <p>Antimicrobial, anti-inflammatory and antioxidant effects.</p> <p>Antibody production and antigen response.</p> <p>Support of lymphocyte and cytokine functions, and innate immunity overall.</p> <p>Inhibits the activity and replication of coronavirus (SARS-CoV which caused an outbreak in 2002)</p>	<p>Men: 8 mg/day</p> <p>Women: 11 mg/day (RDA)</p>	<p>Zinc lozenges: over 75 mg/day administered within 24 h (divided into 6–8 doses, each separated by 2–3 h when awake)</p> <p>Zinc gluconate: 13.3 mg/day within 3 days (at least)</p>	<ul style="list-style-type: none"> • Pumpkin seeds • Hemp seeds • Kabuli Chana • Sesame seeds • Sunflower seeds • Spinach • Cashewnuts • Almonds • Walnuts • Bajra • Ragi • Chana dal 
Iron	<p>Maintenance of functional and structural integrity of mucosal cells in innate barriers</p> <p>Differentiation, and functioning, of innate immune cells</p> <p>Normal functioning of T cells.</p> <p>Antimicrobial, anti-inflammatory and antioxidant effects</p>	<p>Men: 8 mg/day</p> <p>Women age 19–50: 18 mg/day</p> <p>Women age > 51: 8 mg/day (RDA)</p>	<p>Ferrous iron salts (ferrous sulfate and ferrous gluconate): 60 mg Fe/day (taken with food to avoid gastric discomfort)</p>	<ul style="list-style-type: none"> • Poha • Sprouts • Sesame seeds • Beetroot • Bajra Dour • Cauliflower • Jowar • Ragi • Nachni • Dry Fruits 

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Omega-3 fatty acids (EPA + DHA)	Conversion to specialized pro-resolving mediators (SPMs) such as, protectins, resolvins and maresins to relieve the inflammation and enhance lung injury	250–300 mg/day of EPA + DHA	1500–3000 mg/day EPA + DHA	<ul style="list-style-type: none"> • Fish (Salmon) • Walnuts • Flax seeds • Soyabean • Eggs • Spinach • Cod Liver oil • Cauliflower 
Multivitamin supplements including vitamins (A, B6, B12, C, D, E and folate) and trace elements (Zn, Fe, Se, Mg and Cu)	<p>Support of the cells and tissues of the immune system overall</p> <p>Maintenance and development of innate barriers</p> <p>Growth and differentiation of innate cells</p> <p>Antibody production and generation of memory cells</p> <p>Production and activity of antimicrobial proteins</p> <p>Phagocytic activities of neutrophils and macrophages</p>	<p>Supplying nutrient requirements according to the 100% RDA for age and gender</p> <p>This is in addition to a well-balanced diet</p>		<p><u>Multivitamin Supplements such as –</u></p> <ul style="list-style-type: none"> • Zincovit • Bicosule 