

Adults with COVID-19 Present with High Nutritional Risk¹⁻⁵

- Adults positive for COVID-19 have increased nutritional requirements due to a severe acute inflammatory status
- Many have comorbidities (diabetes, chronic kidney disease, etc.) which put them at even higher nutritional risk
- Decreased food intake and difficulty eating are often present and prevent them from meeting their nutritional requirements

Conduct Nutrition Screening^{1,2,5}

- Conduct nutrition screening using a validated nutrition screening tool that is age-appropriate (such as the Mini Nutritional Assessment [MNA[®]] for ages 65+ years and the Malnutrition Screening Tool [MST] for ages 18+ years) to identify [at-risk of] malnutrition in adults with suspected or confirmed COVID-19

Estimate Nutritional Requirements^{1,2,5-9}

- **PROTEIN:** Estimate protein needs based on increased requirements for adults with acute or chronic disease (1.2-1.5 g protein/kg body weight [BW]/day), and severe illness or marked malnutrition (up to 2 g protein/kg BW/day)
- **ENERGY:** Estimate energy requirements using a weight-based formula: 27-30 kcal/kg BW/day; to be individually adjusted based on nutritional status, physical activity level, disease status and tolerance
- **MICRONUTRIENTS:** Assure daily provision of recommended dietary allowances (RDA) for micronutrients including vitamins C, D, A, E & B-vitamins, and zinc, selenium & iron. Deficiency of these micronutrients has been associated with adverse clinical outcomes during viral infections

Initiate Nutrition Care^{1,2,10-12}

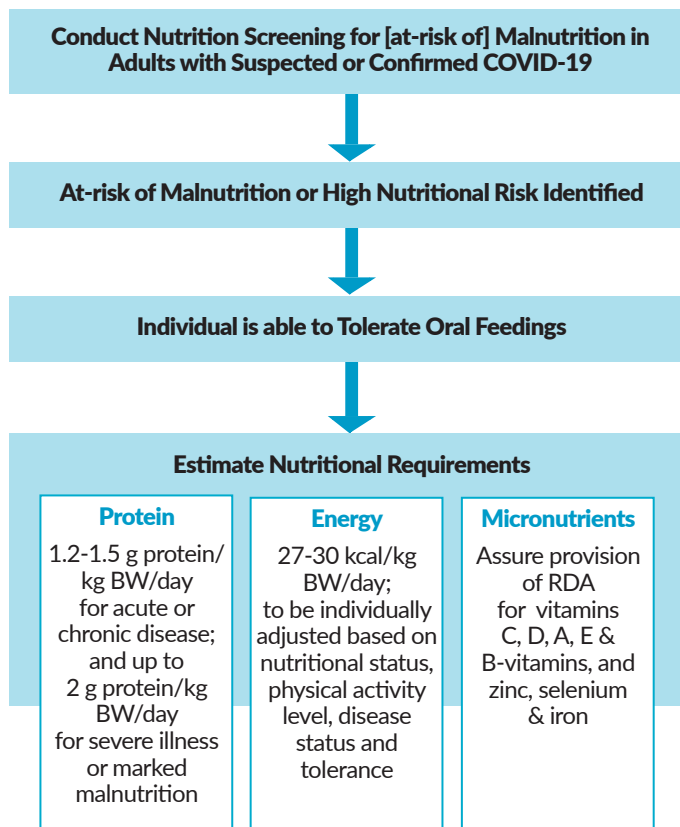
- Provide a diet rich in nutrient-dense foods and initiate oral nutritional supplements (ONS)
- Provide 2-3 servings of ONS in accordance with individual needs and regular food intake
 - ONS shall provide ≥ 400 kcals/day including ≥ 30 g protein/day, and micronutrients to help meet daily nutritional requirements
 - Select ONS based on individual diet, nutritional needs and presence of specific co-morbidities
- Provide adequate hydration (about 3 L fluid/day); including water and clear liquid beverages to replace fluid losses and thin respiratory secretions

Monitor Diet and ONS Intake^{1,2,5}

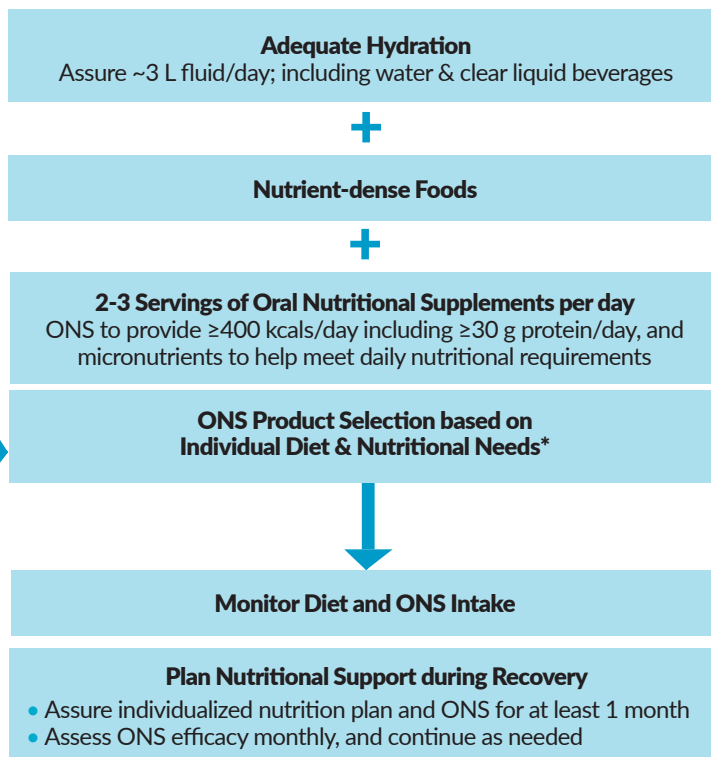
- Encourage compliance and monitor nutritional intake
- If unable to meet nutritional requirements, consider initiating supplemental enteral feeding

Plan Nutritional Support During Recovery^{1,13}

- Nutritional support during recovery should continue with ONS and individualized nutrition plans. This is especially important since pre-existing nutritional risk factors continue to apply, and acute disease is likely to worsen the risk or condition of malnutrition.
- Assure ONS usage for at least 1 month. Assess ONS efficacy monthly, and continue as needed. ONS duration may be 3-12 months depending on prior hospitalization/ICU stay, severity of infection/disease, nutrition status and speed of recovery.



Initiate Nutrition Care Plan



*Nestlé Health Science Oral Nutritional Supplement Options by Type of Diet

Type of ONS	BOOST® Nutritional Drinks	Total Kcals (per 237 mL serving)	Kcal per mL	Protein (% Total Energy)	Carbs (% Total Energy)	Fat (% Total Energy)	Vitamins & Minerals
High Protein	BOOST® High Protein	240	1.0	20 g (33% TE)	28 g (44% TE)	6 g (23% TE)	27
High Calorie	BOOST PLUS®	360	1.5	14 g (15% TE)	45 g (50% TE)	14 g (35% TE)	26
High Protein, High Calorie	BOOST® Very High Calorie (VHC)	530	2.24	22 g (17% TE)	52 g (39% TE)	26 g (44% TE)	26
Diabetes Friendly	BOOST Glucose Control®**	190	0.8	16 g (33% TE)	16 g (34% TE)	7 g (33% TE)	25
Clear Liquid Options	BOOST BREEZE®	250	1.06	9 g (14% TE)	54 g (86% TE)	0 g (0% TE)	19
	BOOST® SOOTHE	300	1.26	10 g (13% TE)	65 g (87% TE)	0 g (0% TE)	0

**Nutritional information specific to retail formula.

For specific product information, visit www.BOOST.com or www.NestleNutritionStore.com

For more COVID-19 nutrition and feeding resources, visit www.NestleMedicalHub.com

References: 1. Barazzoni R et al. *Clin Nutr* 2020;March 24 (E pub ahead of print). 2. Jin et al. *MMR* 2020;7:4. 3. Bhatraju PK et al. *NEJM* 2020;March 30 (E Pub ahead of print). 4. Rabi FA et al. *Pathogens* 2020; 9:231. 5. Handu D et al. *J Acad Nutr Diet* 2020;May 11 (E Pub ahead of print). 6. Bauer J et al. *J Am Med Dir Assoc* 2013;14:542-59. 7. Deutz NEP et al. *Clin Nutr* 2014; 33:929-36. 8. Zang L, Liu Y. *J Med Virol* 2020;92:479-90. 9. Semba RD, Tang AM. *Br J Nutr* 1999;81:181-89. 10. Volkert D et al. *Clin Nutr* 2019;38:10-47. 11. Gomes F et al. *Clin Nutr* 2018;37:336-53. 12. ASPEN Nutrition and Hydration: Quick Facts for COVID-19 Patients 2020. 13. Deutz NE et al. *Clin Nutr* 2016;35:18-26.

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