

NUTRITION AND IMMUNITY

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The role of the immune system is to protect the individual against harmful (micro)organisms, such as pathogenic bacteria and viruses. Nutrition is one of the many factors that determines the immune response and good nutrition is important in supporting the immune response. Immunity can be impaired in older people, particularly those who are frail, in those living with obesity, in those who are malnourished and in those with low intakes of micronutrients. The immune impairments associated with nutritional inadequacy increase susceptibility to infection and permit infections to become more severe, even fatal. The adverse impact of poor nutrition on the immune system, including its inflammatory component, may be one of the explanations for the higher risk of more severe outcomes from infection with SARSCoV-2 seen in older people and in those living with obesity. Studies of individual micronutrients including vitamins A and D and zinc and selenium suggest roles in reducing severity of infection. Good nutrition is also important in promoting a diverse gut microbiota, which in turn supports the immune system. The importance of nutrition in supporting the immune response also applies to assuring robust responses to vaccination.