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**Nutrition and Immunity during**

**the COVID – 19 Pandemic**

Recommendations from the HPSNZ Performance Nutrition team

**Optimising the Immune System while in Covid-19 Level 4**

* A well-balanced diet will support optimal functioning of the immune system.
* Eat a wide variety of foods including at least five servings of fresh fruit and vegetables daily – include food with a good source of vitamin C (oranges, berries, peppers, fresh greens, kiwifruit-add lemon/lime juice to dressings for salads) and zinc (seafood, lean red meat, chicken, wholegrain cereals, beans, lentils and seeds, and dairy).
* Refuelling immediately post-exercise can reduce the impact of exercise on the immune system. Eat carbohydrate containing food post-training: fresh fruit, cereals and wholegrains. Rehydrate post exercise and replace lost fluid (check body mass before and after exercise, monitor urine colour and thirst levels).
* Maintain adequate hydration throughout the day. Water is a great choice.
* Use supplements only when advised by health practitioners - focus on food first. Long term use of some supplements can cause problems such as diarrhoea and the hinder the absorption of other key nutrients.
* Get into the sun regularly – Vitamin D is important for maintaining immune function.
* Do not energy restrict – dieting and low energy availability have been linked to increased risk of illness. Stress and anxiety can also impact appetite – try snacking more often and try new dishes and recipes to keep meals interesting and enjoyable.
* Exercising with low glycogen stores is linked to increases in stress hormone levels and suppresses immune cells.
* Adequate and high-quality sleep will support immune function (8-9 hours per day). Practice good sleep hygiene:
  + Avoid blue light 1 hour before bed
  + Read a book
  + Have a hot milk based drink
  + Maintain a regular bed and wake time
* Reducing whole body stress levels will also support optimal immune function.
  + Practice stress and anxiety management.
  + Stay connected, reach out to friends and family
  + Use mindfulness practices (meditation, breathing, yoga, walking).
* Do not binge drink with alcohol as it can suppress immunity.
* No specific food, supplement or herbal product has been identified to protect against COVID-19 infection

**Important:** For athletes requiring sports specific and individual guidelines at this time, please contact your HPSNZ Performance Nutritionist.

**Remember, to reduce Covid-19 contact and spread during Level 4:**

* Stay at home - only essential travel is exempt
* Wash hands before handling food and before meals
* Exercise regularly, then - rest, refuel, rehydrate and sleep
* Practice physical distancing when outside the home.
* Beware of contact with surfaces outside of your home such as supermarkets, handrails, car and house door handles, trolley handles - wash hands immediately on returning home.

Websites: [www.covid19.govt.nz](http://www.covid19.govt.nz) and [www.health.govt.nz/our-work/eating-and-activity-guidelines](http://www.health.govt.nz/our-work/eating-and-activity-guidelines)