BASICS ABOUT...

DIET & IMMUNE SYSTEM

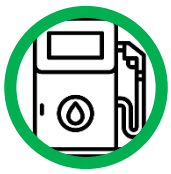
WHAT?	Our immune system is responsible for the coordinated and multi-layered defence against attack from pathogens such as viruses and bacteria. Our diet is important to ensure all aspects of this system have a sufficient supply of nutrients to function optimally.
WHY?	Swimmers are at an increased risk of illness leading to time out of the water and compromised training or racing. A swimmer's diet can either stimulate or inhibit immune function. Immune cells need energy (from carbohydrates, proteins and fats) and multiple nutrients to divide and produce protective chemicals.
HOW?	A well-planned diet focused on **avoiding under-nutrition** can reduce the frequency and severity of illness.

The BIG 6...

The following 6 areas are critical to immune function. These are the areas which should be addressed first when considering how a swimmer's diet can impact illness risk.

1. Energy Availability

Our immune system demands a lot of energy so the first focus should be on eating enough. Prolonged periods of negative energy balance will compromise immunity.

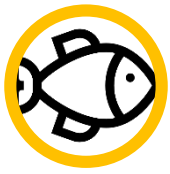


2. Carbohydrate Availability

Carbohydrates are the preferred fuel source for much of your immune system and therefore a diet low in carbohydrates will compromise immunity.

3. Meet Protein Requirements

Protein intakes within 'normal' swimmer ranges of 1-3g/kg/d are likely to be sufficient but protein intake should be split fairly evenly throughout the day.



4. Include Omega-3 Fats

Aim to include omega-3 fats at least three times per week from sources such as oily fish (salmon, mackerel, trout), nuts and seeds (walnuts, flaxseed, pumpkin seeds) and omega-3 enriched eggs.

5. Minimise Dehydration

Stay well hydrated throughout the day but most importantly around exercise. Dehydration can decrease our ability to block infections – particularly in our airways.

6. Eat a Wide-ranging Diet

Our immune system needs a wide variety of nutrients to function and the best way to achieve this is to consume a wide-ranging diet. Aim for lots of plant-based foods and 8+ servings of fruit and veg each day.

A carbohydrate-rich meal or snack before high-intensity or prolonged training

Carbohydrates should be consumed during high-intensity or prolonged sessions

Eating shortly after training is a good way to support immune function