

AISSPORTS SUPPLEMENT FRAMEWORK

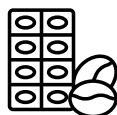
ZINC GROUP A



Zinc is a trace element that plays an important role in the breakdown of carbohydrate and fats, immune function, growth and development, and wound healing. Zinc supplementation can reduce the duration of symptoms of the common cold. The body cannot produce its own zinc, and relies on absorbing the dietary zinc we consume from food or supplements.



Dietary zinc is readily available from the diet e.g. meat, fish, poultry



Zinc supplements are predominately available as tablets or lozenges.



Nasal spray and syrups are also available

50mg of:	= Elemental Zinc
Zinc Oxide	40 mg
Zinc Acetate (most research)	15 mg
Zinc Citrate	15 mg
Zinc Sulfate	11 mg
Zinc Gluconate	7 mg

There are multiple forms of zinc used in supplements. Refer to 'elemental zinc' when calculating dosage

BENEFITS OF ZINC



IMMUNE HEALTH



REDUCES DURATION OF COLD SYMPTOMS



SPEEDS UP WOUND HEALING



ANTI INFLAMMATORY

Zinc supplementation may reduce the duration of common cold symptoms by almost half

HOW TO USE IT FOR MANAGEMENT OF COMMON COLD SYMPTOMS

> For the management of mild upper respiratory symptoms, the recommended short-term protocol of usage is:

75mg / day for 5 days
(of elemental zinc, preferably in lozenge form)



Start within 24 hrs after onset of cold symptoms



Take with food to minimise nausea side effects

- > Use of zinc is only indicated for the treatment of common cold viruses, not other infections such as bacterial respiratory tract infections or more sinister viral infections such as influenza or COVID-19. Careful consideration should be given to ensure more sinister infections are excluded via testing, e.g. COVID-19 symptoms can vary widely and be misinterpreted as the common cold.
- > Combination zinc and vitamin C formulations are available and often referred to as 'sicks packs'. They are marketed for the treatment or prevention of upper respiratory tract infections. Recent research suggests the benefit is most likely from zinc. If you want more information on vitamin C supplementation, speak to your sports dietitian.
- > Zinc supplementation should be used under medical guidance and must not replace or interfere with other standard practises of illness assessment and management.
- > There is no evidence of greater benefit for doses over 100 mg/ day.
- > There is more available research on zinc lozenges than zinc tablets, although the available evidence for tablets appears similar to lozenges.



ZINC



FOOD FIRST PHILOSOPHY

> Almost 80% of the dietary zinc intake in Western populations comes from meat, fish, poultry, fortified breakfast cereals and milk, and generally correlates well with protein intake. It is relatively easy to meet the recommended amounts of zinc in a well planned diet that includes animal products. The recommended daily intake of zinc for adults is:

Males = 14 mg per day Females = 8 mg per day

Dietary sources of zinc (per 100g):



Oysters (10)
= 20 mg



Sundried tomato
(1 ½ cup)
= 14 mg



Lamb, cooked
= 10 mg



Beef, cooked
= 8 mg



Pepitas/ sunflower
seeds (2/3 cup)
= 6 - 7 mg



Fortified breakfast
cereal (~2 cups)
= 5 mg



Nuts
[~70 cashews]
= 6 mg



Parmesan cheese
[~1 cup]
= 5 mg

> While it is achievable to meet the recommended daily intake for zinc through diet, supplementation may be the most practical method to meet the higher dose of zinc shown to reduce common cold duration and severity, when started at the onset of symptoms.

CONCERNS AND CONSIDERATIONS



Vegetarians may require daily intakes of zinc up to 50% higher as they typically integrate legumes and wholegrains into their meal plan, containing high amounts of phytates which impair zinc absorption.



Side effects of zinc supplements are mild, but may include: altered taste sensation, nausea or constipation.



More high quality research is needed in humans to assess if zinc supplementation influences the risk of 'catching' a cold.



Consuming large amounts of zinc supplements is likely unsafe. Doses over 100 mg, especially long term could be detrimental to health.



Zinc supplements can interact with several medications, including some antibiotics. Taking zinc supplements 2-6 hrs away from antibiotics may help absorption of both.



Only use zinc supplementation short term under the guidance of a doctor or dietitian.



All supplements have a doping risk of some kind. Some supplements are riskier than others. Athletes should only use batch-tested supplements. The Sport Integrity Australia app provides a list of more than 400 batch-tested products. (www.sportintegrity.gov.au/what-we-do/supplements-sport).



Risk of peripheral neuropathy
Zinc supplements often have added Vitamin B6, which has been associated with peripheral neuropathy, a type of nerve damage that causes tingling, burning or numbness in the hands and feet. While the maximum permitted daily dose in individual supplements is 100mg, Vit. B6 is added to a large number of supplements, including multi-vitamin and mineral supplements, electrolytes, plus mineral complexes like magnesium and zinc. Peripheral neuropathy can occur at doses of Vit. B6 <50mg. Talk to your sports dietitian if you have any concerns about the supplements you are using and chat to your doctor if you have any questions about peripheral neuropathy.

While batch-tested products have the lowest risk of a product containing prohibited substances, they cannot offer you a guarantee. Before engaging in supplement use, you should refer to the specific supplement policies of your sport or institute and seek professional advice from an accredited sports dietitian (www.sportsdietitians.com.au). Athletes are reminded that they are responsible for all substances that enter their body under the 'strict liability' rules of the World Anti-Doping Code.

