













Rugby Nutrition:

Supplements – An integrated Approach

Medical and Health supplements

All supplements in this group have a therapeutic role and should therefore only be used under the guidance of a physician or registered dietitian working in sport.

They should only be prescribed once a proper clinical diagnosis has been made and then taking into account the form and dosages, interactions, toxicities and medical, socio-economic, physiological and dietary factors.

It may be tempting to use a multi-vitamin and mineral type supplement. While a level of 1.5x Recommended Dietary Allowances (RDA)/Reference Nutrient Intake (RNI) may be safe from a health point of view, there is still the risk of these products containing WADA prohibited and banned substances. [1]

Single nutrient supplements are not recommended and can do more harm than good.





Table 1: Examples of supplements that may have a clinical or health role $^{[2]}$

Cumplement	Use and rationale	Tipe and Comments
Supplement	Use and rationale	Tips and Comments
Type/Category	AARII	0 1 1
Multi-vitamin and multi- mineral (MVM)	Will not improve performance when diets are adequate. Can be used as "insurance", particularly when diets or energy intake is restricted or when travelling. Intake should not exceed 1.5x RDA/RNI levels.	Can help meet RDA/RNI of some vitamins E, A, B6 and zinc, but not for nutrients like calcium, magnesium and potassium. There is no evidence that they prevent chronic diseases.
Individual vitamins or minerals (e.g. iron, calcium, vitamin D and folate)	Used to treat a diagnosed deficiency disease.	Since many nutrients can be toxic, it is important that these are taken under supervision with a clear clinical justification and understanding of the rest of the diet and medications.
Multi-antioxidants	Can be used to boost immune function during periods of extreme stress.	Some anti-oxidants have been shown to cause some health problems, dampen adaptations to training, and increase mortality.
Glutamine	Strongest evidence for improved gut function and maintaining lean muscle mass, less evidence for immune benefits.	Individual amino acids should not be prescribed
Arginine	Improved wound healing	





Fish oil supploments	A source of omega 2	Aim to consume fatty fish
Fish oil supplements	A source of omega-3 fatty acid when dietary	Aim to consume fatty fish 2x/week or fortified foods.
	intake of oily fish is low,	24) week of fortified foods.
	and specifically for	High doses should be taken
	persons who may have	under medical supervision.
	rheumatoid arthritis and	ander medical supervision.
	other inflammatory	Nausea and GI upsets.
	conditions, exercise-	Trades and Crapesto.
	induced	
	bronchoconstriction,	
	macular degeneration of	
	the eyes, certain cardiac	
	related conditions, and	
	for persons with	
	Attention Deficit	
	Hyperactivity Disorder	
	(ADHD) - although	
	effectiveness for the	
	latter is still not clear-	
Electric de la contraction de	cut.	Common sitis and many
Electrolyte replacements	Can be used for treating	Composition may vary, some
(powders, tablets, ready-to- drink)	diarrhoea (together with fluid) and other	may contain carbohydrate and choice should be tailored to
drink)	situations where high	match needs.
	sodium, potassium and	
	fluid losses may occur.	Too many electrolytes can
	maia iosses may occarr	cause electrolyte imbalances.
		Guidance for use of electrolyte
		supplements during illness
		should be provided by a Sports
		Physician
Glucosamine and Chondroitin	Some studies have	Mixed results with treatment
	shown to slow cartilage	for osteoarthritis. Appears safe
	degeneration and	with minimal side effects.
	reduce joint pain but	
	evidence on prevention is lacking.	
Melatonin	May reduce jet-lag and	Should only be prescribed by
	perhaps thermal	team physician. May cause
	responses to exercise.	headaches and dizziness
Quercetin [3]	Strong anti-	Mixed with other flavonoids
	inflammatory, anti-	and nutrients show strong
	oxidative and anti-	reduction in illness, rated
	pathogenic effects.	during heavy training
Sterols		Sterols may improve lipid
		profiles and immune function.







Probiotics	Can be used for gut	Different strains are required
	conditions (e.g.	to treat different symptoms.
	diarrhoea and when on	
	antibiotics) and immune	
	function.	

For more information on Rugby Nutrition, go to the BokSmart website www.BokSmart.com or go to the

following link: http://boksmart.sarugby.co.za/content/eating-and-drinking-right

REFERENCES

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- 3. Walsh N P, Gleeson M, Shephard R J et al. Position Statement Part 1: Immune function and exercise. *Exerc Immunol Rev.* 2011;17:6-63.

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