NUTRIENTS

Vitamins: Pantothenic Acid

What is it?

Pantothenic acid, also known as vitamin B5, is a water soluble vitamin.

Functions - what does it do?

Coenzyme A. The primary role of pantothenic acid is as part of coenzyme A, which is involved in the release of energy from carbohydrates and proteins, and in the breakdown and production of fatty acids. Coenzyme A also makes other molecules more reactive.

Requirements - How much do we need?

	Adequate Intake* (mg/day)	
Life-Stage (years)	**Males**	**Females**
0 - 0.5 (0 - 6 months)	1.7	1.7
0.5 - 1 (7 - 12 months)	1.8	1.8
1 - 3	2	2
4 - 8	3	3
9 - 13	4	4
14 - 18	5	5
Ages 19+	5	5
Life-Stage (years)	**Pregnancy**	**Lactation**
18 and younger	6	7
19 - 30	6	7
Ages 31 - 50	6	7

*Adequate Intakes (AI) are used as no Recommended Dietary Allowance (RDA) is established. The AI is a recommended daily intake level based on observed or experimentally determined approximations of nutrient intake by a group of healthy people who are assumed to be maintaining an adequate nutritional state.

Sources - Where is it found?

	Food Sources	Nutrient Density		
		High	Medium	Low
Excellent sources	Egg yolk, Kidney, Liver, Yeast			
Moderate sources	Mushrooms, Avocado, Broccoli, Lean Beef, Skimmed milk, Sweet potatoes, Molasses			
Other sources	Pantothenic acid is widespread in all foods and is present in all plant and animal tissue.			

Deficiency - When you have too little

Pantothenic acid is widespread in foods and no deficiency disease has been observed in humans. A deficiency may occur in alcoholics with a very nutrient-deficient diet. However, symptoms may be masked by deficiencies of other vitamins like thiamin, riboflavin, vitamin B6, and folate.

Toxicity - When you have too much

No toxic effects of pantothenic acid are known, but excessively large amounts may cause diarrhoea.

	Upper Limit+ (mg/day)	
Life-Stage (years)	**Males**	**Females**
All ages	ND	ND
Life-Stage (years)	**Pregnancy**	**Lactation**
All ages	ND	ND

+Upper Limits (UL) = The maximum level of daily nutrient intake that is likely to pose no risk of adverse effects. Unless otherwise specified, the UL represents total intake from food, water, and supplements.

ND = Not determinable due to lack of data of adverse effects in this age group and concern with regard to lack of ability to handle excess amounts. Source of intake should be from food only to prevent high levels of intake.

For further, personalized and more detailed information, please contact a dietitian registered with the Health Professions Council of South Africa.*References from the scientific literature used to compile this document are available on request.*

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