

F. No. Stds/Nutra (DCGI)/FSSAI -2017
Food Safety and Standards Authority of India
(A Statutory Authority established under the Food Safety & Standards Act, 2006)
(Standards Division)
FDA Bhawan, Kotla Road, New Delhi-110 002

Dated, the 7th January, 2020

Subject: Recommended Dietary Allowance (RDA)-reg.

Section 22 of the FSS Act, 2006 allows the use of vitamins or minerals or amino acids in amounts not exceeding the Recommended Dietary Allowance (RDA) for Indians in functional foods, foods for special dietary uses, nutraceuticals and health supplements. The Food Safety and Standards (Health Supplements, Nutraceuticals, Food for Special Dietary Use, Food for Special Medical Purpose, Functional Food and Novel Food) Regulations, 2016 also specifies addition of nutrients in quantities not exceeding RDA as specified by the ICMR and in case, such standards are not specified, the standards laid down by international food standards body, namely Codex shall apply.

2. FSSAI has received several representations from stakeholders as well as the regulatory staff seeking clarification on RDA values of different nutrients. In this connection, based on the recommendations made by the Scientific Panel and Scientific Committee, a collated document in respect of the RDA values for vitamins and minerals has been prepared and placed on FSSAI's website on 27.02.2019 (Annexure I). In addition, the Scientific Panel has also recommended RDA values for essential amino acids for the general population using references from ICMR, which was endorsed by the Scientific Committee. The same is enclosed at **Annexure II**.

3. Further, it is to also clarify that the report submitted by ICMR regarding 'Tolerable Upper Limits (TUL) of vitamins/minerals' which has been made available to the public on the FSSAI website on 05.09.2018 is 'only for information' and NOT for use by the food business operators/regulatory purpose in the field of health supplements and nutraceuticals.

This issues with the approval of the Competent Authority.



(Dr. A. C. Mishra)
Joint Director (Standards)
FSSAI, New Delhi.

Encl: As above

Copy to: CITO, FSSAI for necessary action and uploading on FSSAI website.

Copy for information to:

1. PPS to Chairperson, FSSAI, New Delhi.
2. Sr. PS to CEO, FSSAI, New Delhi.
3. All Divisional Heads, FSSAI, New Delhi.

F. No. Stds/Nutra (DCGI)/ FSSAI -2017 (Part file)
Food Safety and Standards Authority of India
(A Statutory Authority established under the Food Safety & Standards Act, 2006)
(Standards Division)
FDA Bhawan, Kotla Road, New Delhi-110 002

Dated, the 27th February, 2019

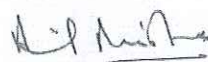
Note

Subject: Recommended Dietary Allowance (RDA)-reg.

Section 22 of the FSS Act, 2006 allows the use of vitamins or minerals in amounts not exceeding the Recommended Dietary Allowance (RDA) for Indians in functional foods, foods for special dietary uses, nutraceuticals and health supplements. The Food Safety and Standards (Health Supplements, Nutraceuticals, Food for Special Dietary Use, Food for Special Medical Purpose, Functional Food and Novel Food) Regulations, 2016 also specifies addition of nutrients in quantities not exceeding RDA as specified by the ICMR and in case, such standards are not specified, the standards laid down by international food standards body, namely Codex shall apply.

2. In this connection, FSSAI has received several representations from stakeholders as well as the regulatory staff seeking clarification on RDA values of different vitamins and minerals. The issue has been examined by the concerned Scientific Panel and Scientific Committee at FSSAI. Based on the recommendations of the Scientific Panel and Scientific Committee, a collated document (placed at Annexure part A & B) has been prepared in respect of the RDA values for various micronutrients using references from ICMR and Codex in this context. The document is intended for ease of understanding and compliance of the above mentioned regulations by regulatory staff and food business operators in the field of health supplements and nutraceuticals.

This issues with the approval of the Competent Authority.


(Dr. A. C. Mishra)
Joint Director (Standards)
FSSAI, New Delhi.

Enclosure: As above

- (Annexure part A: ICMR RDA Table)
- (Annexure part B: Collated information on RDA for nutrients not listed under Annexure Part A)

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Summary of Recommended Dietary Allowances (RDA) for Water Soluble and Fat Soluble Vitamins for Indians - 2010 *

Group	Category/Age	Body Weight (kg)	Vitamin A (µg/d)		Thiamine (mg/d)	Riboflavin (mg/d)	Niacin equivalent (mg/d)	Vitamin B ₆ (mg/d)	Ascorbic Acid (mg/d)	Dietary folate (µg/d)	Vitamin B ₁₂ (µg/d)
			Retinol	β-carotene							
Men	Sedentary work	60	600	4800	1.2	1.4	16	2.0	40	200	1.0
	Moderate work				1.4	1.6	18				
	Heavy work				1.7	2.1	21				
Women	Sedentary work	55	600	4800	1.0	1.1	12	2.0	40	200	1.0
	Moderate work				1.1	1.3	14				
	Heavy work				1.4	1.7	16				
	Pregnant		800	6400	+0.2	+0.3	+2	2.5	60	500	1.2
	Lactating 0-6 m 6-12 m		950	7600	+0.3	+0.4	+4	2.5	80	300	1.5
Infants	0 - 6 months	5.4	350	----	0.2	0.3	710 µg/kg	0.1	25	25	0.2
	6 -12 months	8.4		2800	0.3	0.4	650 µg/kg	0.4			
Children	1-3 years	12.9	400	3200	0.5	0.6	8	0.9	40	80	0.2- 1.0
	4-6 years	18.0			0.7	0.8	11	0.9		100	
	7-9 years	25.1	600	4800	0.8	1.0	13	1.6		120	
Boys	10-12 years	34.3	600	4800	1.1	1.3	15	1.6	40	140	0.2- 1.0
Girls	10-12 years	35.0			1.0	1.2	13	1.6			
Boys	13-15 years	47.6			1.4	1.6	16	2.0	40	150	0.2- 1.0
Girls	13-15 years	46.6			1.2	1.4	14	2.0			
Boys	16-17 years	55.4			1.5	1.8	17	2.0	40	200	0.2- 1.0
Girls	16-17 years	52.1			1.0	1.2	14	2.0			

* Ref:- ICMR (Nutrient Requirements and RDA for Indians - A report of the Expert Group of the ICMR, 2010)

Summary of Recommended Dietary Allowances (RDA) for Energy, Protein, Fat and Minerals for Indians - 2010 *

Group	Category/Age	Body Weight (kg)	Net Energy (kcal/d)	Protein (g/d)	Visible Fat (g/d)	Calcium (mg/d)	Iron (mg/d)	Zinc (mg/d)	Magnesium (mg/d)	
Men	Sedentary work	60	2320	60.0	25	600	17	12	340	
	Moderate work		2730		30					
	Heavy work		3490		40					
Women	Sedentary work	55	1900	55.0	20	600	21	10	310	
	Moderate work		2230		25					
	Heavy work		2850		30					
	Pregnant		+350	78	30	1200	35			
	Lactating		0-6 m	+600	74	30	1200	21		12
			6-12 m	+520	68	30				
Infants	0 - 6 months	5.4	92 kcal/kg/d*	1.16 g/kg/d*	--	500	46µg/kg/d*	---	30	
	6 - 12 months	8.4	80 kcal/kg/d*	1.69 g/kg/d*	19		05	---	45	
Children (Boys + Girls)	1-3 years	12.9	1060	16.7	27	600	09	5	50	
	4-6 years	18.0	1350	20.1	25		13	7	70	
	7-9 years	25.1	1690	29.5	30		16	8	100	
Boys	10-12 years	34.3	2190	39.9	35	800	21	9	120	
Girls	10-12 years	35.0	2010	40.4	35	800	27	9	160	
Boys	13-15 years	47.6	2750	54.3	45	800	32	11	165	
Girls	13-15 years	46.6	2330	51.9	40	800	27	11	210	
Boys	16-17 years	55.4	3020	61.5	50	800	28	12	195	
Girls	16-17 years	52.1	2440	55.5	35	800	26	12	235	

* Requirement

* Ref :- ICMR (Nutrient Requirements and RDA for Indians - A report of the Expert Group of the ICMR, 2010)

Annexure part B

Collated information on RDA for nutrients not listed under Annexure Part A

S. No.	Vitamin	RDA
1.	Vitamin D*	400 IU (10 µg)
2.	Vitamin E*	7.5-10 mg α-tocopherol
3.	Vitamin K* (K1, K2)	55 µg
4.	Biotin**	30 µg
5.	Pantothenic acid**	5 mg

S. No.	Mineral	RDA
1.	Chloride#(AI)	<ul style="list-style-type: none"> • Children 1 to 3 y: 1500 mg • Children 4 to 8 y: 1900 mg • Men & Women (9 y and above): 1800 to 2300 mg • Pregnant & Lactating women: 2300 mg
2.	Chromium* (AI)	50 µg
3.	Copper* (AI)	1.7 mg
4.	Iodine*	<ul style="list-style-type: none"> • Children (1 to 5 y): 90 µg • Children (6 to 12 y): 120 µg • Adolescents and adults (≥13 y): 150 µg • Pregnant & Lactating women: 250 µg
5.	Manganese* (AI)	4.0 mg
6.	Molybdenum**	45 µg
7.	Phosphorous*	<ul style="list-style-type: none"> • Children (1 to 9 y): 600 mg • Boys & Girls (10 to 17 y): 800 mg • Men & Women: 600 mg • Pregnant & Lactating women: 1200 mg
8.	Potassium*	<ul style="list-style-type: none"> • Children (1 to 3 y): 1100 mg • Children (4 to 6 y): 1550 mg • Men: 3750 mg • Women: 3225 mg
9.	Selenium*	40 µg
10.	Sodium*	<ul style="list-style-type: none"> • Children (1 to 3 y): 590 mg • Children (4 to 6 y): 1010 mg • Men: 2100 mg • Women: 1900 mg

[*ICMR (Nutrient requirements and RDA for Indians - A report of the Expert Group of the ICMR, 2010); **Codex (CAC/GL 2-1985-Guidelines on nutrition labelling (applied only for individuals older than 36 months)); #Food and Nutrition Board, Institute of Medicine, National Academies; AI: Adequate Intake]

Note 1: In case age wise RDAs are available, then RDA values for men and women (sedentary work) may be considered as standard reference or else the single value will be applicable across all age groups.

Note 3: The Food Safety and Standards (Health Supplements, Nutraceuticals, Food for Special Dietary Use, Food for Special Medical Purpose, Functional Food and Novel Food) Regulations, 2016 shall not be applicable to the infants up to the age of 24 months. Hence, RDAs mentioned in this document for the age group 0 to 24 months will not be applicable for the said regulations.

Note 2: Conversion units (referred from report of Expert Committee of ICMR which specifies TUL of micronutrient for Indian population)

- Vitamin A: 1µg = 3.33 IU
- Vitamin D: 1µg = 40 IU
- Vitamin E: 1mg = 1.5 IU d-alpha-tocopherol, or 1.1 IU dl-alpha-tocopherol
- Folic acid: 1µg = 1.7 DFE (Dietary Folate Equivalent)

Disclaimer: The RDAs are effective till revised RDA of ICMR is made available.

Annexure II

RDA values for amino acids for age group more than 24 months (2 years)

S. No.	Amino acids	RDA (mg/kg body wt./day)
(i)	Histidine	12
(ii)	Isoleucine	23
(iii)	Leucine	44
(iv)	Lysine	35
(v)	Sulphur amino acids (Methionine, Cysteine)	18
(vi)	Aromatic amino acids (Tyrosine, and Phenylalanine)	30
(vii)	Threonine	18
(viii)	Tryptophan	4.8
(ix)	Valine	29

[Ref: Nutrient requirements and RDA for Indians - A report of the Expert Group of the ICMR, 2010]