

RDA is defined as the estimated daily intake level that is considered to meet the requirement of most (97 to 98%) of a particular gender and age group. As a rule, this is “twice the EAR + standard deviation (2SD)”.

Adequate Intake (AI)

When the sufficient scientific basis to compute EAR and RDA cannot be obtained, this is a quantity that is sufficient to maintain a satisfactory nutritional status of a particular gender and age group.

Tentative Dietary Goal for Preventing Lifestyle-related Diseases (DG)

DG is defined as the intake level (or range) that Japanese should currently aim primarily to prevent lifestyle-related diseases.

Tolerable Upper Intake Level (UL)

The maximum intake level which almost all the people of a particular gender and age group may consume without incurring a disease due to excessive intake.

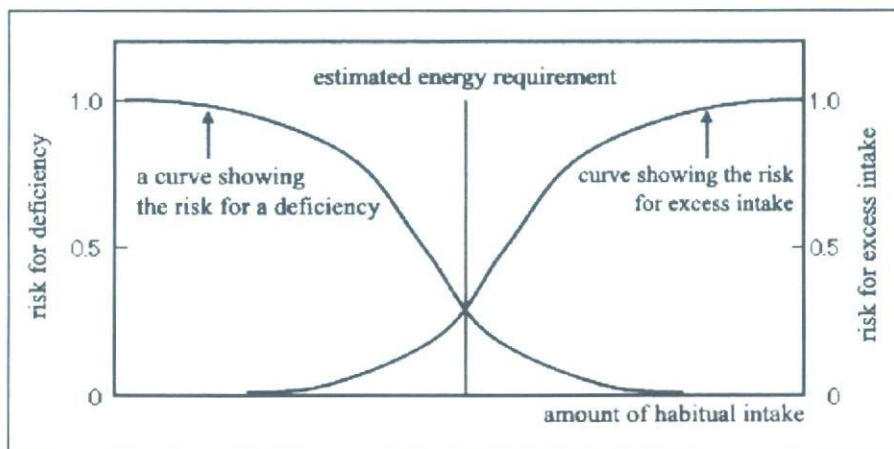


Fig. 1 A model to aid in the comprehension of Estimated Energy Requirement (EER)

With an increase in habitual intake, the risk for insufficiency is reduced and that for excessive intake increases. The intake at which both of these risks are the lowest is EER.

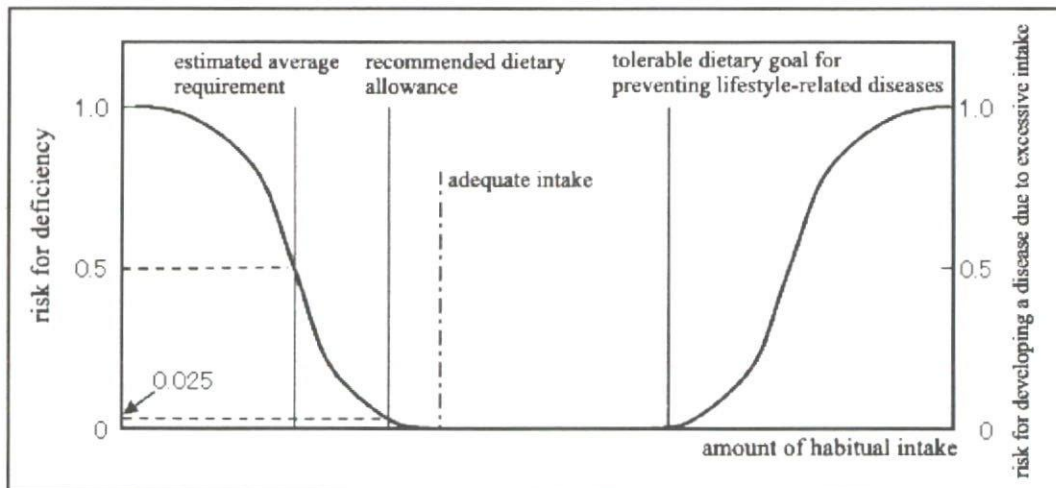


Fig. 2 A model to aid in understanding the indices for DRIs-J (Estimated Average Requirement, Recommended Daily Allowance, Adequate Intake and Tolerable Upper Intake Level)

The figure shows the risk of deficiency exist for 0.5 (50%) for EAR and 0.02 to 0.03 (mean, 0.025, 2 to 3% or 2.5%) for RDA. Note that there is a potential risk of developing a disease from adverse effects due to excessive intake when the amount exceeds UL. It can also be seen that when the intake is between RDA and UL, the risk of a deficiency or developing a disease due to excessive intake is near zero (0).

An AI is not in a fixed relationship with EAR or RDA. If it is possible to compute the last two simultaneously, the estimated intake is believed to be greater than RDA (on the right side in the figure). The estimated intake was added for reference.

Because the DG is determined from the EDA or AI and the median of the current intake, it cannot be displayed here.

3) Age groups

Age 0 to 5 months, 6 to 11 months, 1 to 2 years, 3 to 5 years, 6 to 7 years, 8 to 9 years, 10 to 11 years, 12 to 14 years, 15 to 17 years, 18 to 29 years, 30 to 49 years, 50 to 69 years, 70 years and older, pregnant women, and lactating mothers.

Difference between the 6th revised Recommended Dietary Allowance and Dietary Reference Intake for Japanese, 1999: the age groups were reclassified to coordinate with the school lunch programs from 6 to 8 years and 9 to 11 years to 6 to 7 years, 8 to 9 years, and 10 to 11 years.

4) Nutrients

Energy, proteins, lipids (total fats, saturated fatty acids, n-6 fatty acids, n-3 fatty acids and cholesterol), carbohydrates and dietary fibers

Water-soluble vitamins: vitamin B₁, vitamin B₂, niacin, vitamin B₆, folic acid, vitamin B₁₂, biotin, pantothenic acid and vitamin C

Oil-soluble vitamins: vitamin A, vitamin E, vitamin D and vitamin K.

Minerals: magnesium, calcium, phosphorus and iron

Trace elements: chromium, molybdenum, manganese, copper, zinc, selenium and iodine

Electrolytes: sodium and potassium

4. Basic Approach for Application

The use of DRIs-J is roughly divided into two: “dietary assessment” (Table 1); and “dietary planning: including nutritional consultation and school lunch programs” (Table 2).

BMI (body mass index) should be used as an indicator for the evaluation and determination of energy intake, and body weight for monitoring. Because a restriction on energy intake may cause a nutritional deficiency, it is desirable to include increase of energy consumption, physical activities, in planning.

Table 1 Concept of Dietary Reference Intakes for Japanese uses for dietary assessment (excluding energy requirements)¹⁻³

	For an Individual	For a Group
EAR	If the habitual intake is less than EAR, the probability for deficiency is more than 50%: the probability increases as the habitual intake is reduced below EAR.	The percentage of those with a habitual intake less than EAR is generally equal to that suffering from insufficient intake.
RDA	When the habitual intake exceeds the EAR and approaches RDA, the probability for deficiency is reduced. When it reaches RDA, the probability becomes low (2.5%).	Not used.
AI	If the habitual intake exceeds AI, the probability for deficiency becomes very low.	When the median intake of the group is more than AI, the percentage of those suffering from a deficiency is small. If the median intake is less than AI, the percentage cannot be determined.
DG ⁴	If the habitual intake has reached DG or within the range indicated, the risk for lifestyle-related disease ⁶ is very unlikely.	The percentage of those not achieving DG or those with an intake outside the range corresponds to those having a risk of developing a lifestyle-related disease. ⁶
UL ⁵	As the habitual intake exceeds the upper limit and continues to increase, the risk for developing a disease ⁶ related to excessive intake increases.	The percentage of those with habitual intake exceeding UL corresponds to the percentage of those having a risk for developing a disease ⁶ due to excessive intake.

¹ The assessment based on intake is meant to be used for screening. To know the true nutritional state, it is necessary to obtain clinical information, results of biochemical determinations and physiological data.

² It has been reported in American and European studies that the energy intake (although the extent may vary in the method of survey or study subjects) is often underreported by 5 to 15%.⁴⁾ Among Japanese, it is also known that the mean for a group be underreported by 8% than actual intake.⁵⁾ The tendency is particularly notable when the subjects are obese,²⁰⁾ but the quantitative relationship has not been elucidated. For the nutrients, underreporting, such as seen for energy, is suspected but details are not known.

³ It is desirable that the habitual intake be estimated as accurately as possible (Refer to 4-3).

⁴ The nutrient intake and related risk for developing a lifestyle-related disease are ongoing events and should be regarded carefully. The “high” and “low” risks are relative concepts.

⁵ There are some nutrients for which no UL is indicated because there is no sufficient scientific basis to determine the actual value. It by no means assures safety from excessive intake.

⁶ The “risk” here means the probability of developing a lifestyle-related disease or disorder due to excessive consumption of the nutrient in question.

**Table 2 Concept of Dietary Reference Intakes for Japanese uses for dietary planning¹
(excluding energy requirements)**

	For an Individual	For a Group
EAR	Not used.	The percentage of those with a habitual intake below EAR should be brought down to less than 2.5%
RDA	Those whose habitual intake is less than EAR should try to achieve the RDA.	Not used.
AI	One should try to bring his/her habitual intake close to AI.	The goal is to bring the mean of the group to AI.
DG ²	One should strive to bring his/her habitual intake close to DG or within the range indicated.	Reduced the percentage of those whose habitual intake is below DG or outside the range.
UL ³	One should bring the habitual intake below UL.	The percentage of those whose habitual intake exceeds UL should be brought to zero (0).

¹ It is important to design and implement a plan tailored to the subject, based on a dietary assessment (using not only the dietary intake but also biochemical and physiological data). The numerical indices are not to be followed faithfully. The dietary assessment, which constitutes the basis of planning, is used for screening purposes. To understand one's true nutritional status, clinical information, results of biochemical tests and physiological data are needed.

² The nutrient intake and related risk for developing a lifestyle-related disease are ongoing events and should be regarded carefully. The "high" and "low" risks are relative concepts. The "risk" here means the probability of developing a lifestyle-related disease or disorder due to excessive consumption of the nutrient in question.

³ There are certain nutrients for which no UL are indicated because there is no sufficient scientific basis to determine the actual value. It by no means guarantees safety from excessive intake.

5. Notes for Applying DRIs-J

- 1) The subjects to whom the DRIs-J are applied are, as a rule, healthy individuals or groups that is composed of healthy individuals. The healthy individuals here may include those who have some mild conditions such as hypertension, hyperlipidemia and hyperglycemia but enjoy a normal life and no specific dietary guidance is being given or diet therapy or diet restriction is imposed.
- 2) Although the unit used in DRIs-J is "per day", it is the value which converted the habitual intake into daily intake level.

- 3) When applying DRIs-J to nutritional consultation, lunch programs and others, it is desirable to consider followings: energy, lipids, proteins, vitamin A, vitamin B, vitamin C, calcium, iron, sodium and dietary fibers.
- 4) Fundamentally, RDA, AI and DG should be fulfilled through a balanced diet that is composed of normal food in daily life.
- 5) Regarding UL, health disorder is not brought about just because it exceeded UL temporarily through meals by normal foods.
- 6) For aged, weakening of their masticatory function, deterioration of digestive and absorptive fraction, and a reduction in food intake due to less physical activities exist. One characteristic of this age group is that their individual intake varies widely; another is that many aged individuals are affected by an illness. Sufficient attention should be directed not only to the age but also to individual characteristics.

6. Dietary Reference Intakes (Tables)

See the attached tables.

Nutrients for which Dietary Reference Intakes for Japanese (DRIs-J) have been established and its indices (ages 1 year and over)¹

		EAR	RDA	AI	DG	UL
Proteins		○	○	-	○	-
Lipids	Total fats	-	-	-	○	-
	Saturated fatty acids	-	-	-	○	-
	n-6 fatty acids	-	-	○	○	-
	n-3 fatty acids	-	-	○	○	-
	Cholesterol	-	-	-	○	-
Carbohydrates		-	-	-	○	-
Dietary fibers		-	-	○	○	-
Water-soluble vitamins	Vitamin B ₁	○	○	-	-	-
	Vitamin B ₂	○	○	-	-	-
	Niacin	○	○	-	-	○
	Vitamin B ₆	○	○	-	-	○
	Folic acid	○	○	-	-	○ ²
	Vitamin B ₁₂	○	○	-	-	-
	Biotin	-	-	○	-	-
	Pantothenic acid	-	-	○	-	-
	Vitamin C	○	○	-	-	-
Oil-soluble vitamins	Vitamin A	○	○	-	-	○
	Vitamin E	-	-	○	-	○
	Vitamin D	-	-	○	-	○
	Vitamin K	-	-	○	-	-
Minerals	Magnesium	○	○	-	-	○ ²
	Calcium	-	-	○	○	○
	Phosphorus	-	-	○	-	○
Trace elements	Chromium	○	○	-	-	-
	Molybdenum	○	○	-	-	○
	Manganese	-	-	○	-	○
	Iron	○	○	-	-	○
	Copper	○	○	-	-	○
	Zinc	○	○	-	-	○
	Selenium	○	○	-	-	○
Iodine	○	○	-	-	○	
Electrolytes	Sodium	○	-	-	○	-
	Potassium	-	-	○	○	-

EAR, estimated average requirement, RDA, recommended dietary allowance; AI, adequate intake, DG, tentative dietary goal for preventing life-style related diseases; UL, tolerable upper intake level

¹ Including when the DRIs-J were defined for only certain age groups.

² Defined as intake from other than normal food.

Reference physiques (reference height and reference weights)

Sex	Males		Females ¹	
Age	Reference height (cm)	Reference body weight (kg)	Reference height (cm)	Reference body weight (kg)
0-5 months	62.2	6.6	61.0	6.1
6-11	71.5	8.8	69.9	8.2
1-2 years	85.0	11.9	84.7	11.0
3-5	103.5	16.7	102.5	16.0
6-7	119.6	23.0	118.0	21.6
8-9	130.7	28.0	130.0	27.2
10-11	141.2	35.5	144.0	35.7
12-14	160.0	50.0	154.8	45.6
15-17	170.0	58.3	157.2	50.0
18-29	171.0	63.5	157.7	50.0
30-49	170.0	68.0	156.8	52.7
50-69	164.7	64.0	152.0	53.2
≥70	160.0	57.2	146.7	49.7

¹ Excluding pregnant women.

Dietary Reference Intakes for Japanese for energy: Estimated Energy Requirements (EERs) (kcal/day)

Sex	Males			Females		
PAL	I	II	III	I	II	III
0-5 months infants	-	600	-	-	550	-
Breastfed	-	600	-	-	550	-
Formula-fed	-	650	-	-	600	-
6-11 months	-	700	-	-	650	-
1-2 years	-	1,050	-	-	950	-
3-5	-	1,400	-	-	1,250	-
6-7	-	1,650	-	-	1,450	-
8-9	-	1,950	2,200	-	1,800	2,000
10-11	-	2,300	2,550	-	2,150	2,400
12-14	2,350	2,650	2,950	2,050	2,300	2,600
15-17	2,350	2,750	3,150	1,900	2,200	2,550
18-29	2,300	2,650	3,050	1,750	2,050	2,350
30-49	2,250	2,650	3,050	1,700	2,000	2,300
50-69	2,050	2,400	2,750	1,650	1,950	2,200
≥70 ¹	1,600	1,850	2,100	1,350	1,550	1,750
Pregnant women:	/					
Early-stage (amount to be added)				+50	+50	+50
Mid-stage (amount to be added)				+250	+250	+250
Late-stage (amount to be added)				+500	+500	+500
Lactating women (amount to be added)				+450	+450	+450

¹ For adults, the following formula was used for computation: Estimated Energy Requirement=Basal Metabolic Rate (kcal/day) x PAL. For those between 18-69 years, the PALs were designated as I=1.50, II=1.75 or III=2.00. For those 70 years or older, the following were used instead: I=1.30, II=1.50, III=1.70. The seeming discrepancy in Estimated Energy Requirements for the 50-69 and over 70 years group is mostly explained by this.

PAL: physical activity level

(Reference 1)

The description and duration of Physical Activity Levels (ages 15 through 69 years)¹

PAL ²		Low (I)	Moderate (II)	High (III)
		1.50 (1.40-1.60)	1.75 (1.60-1.90)	2.00 (1.90-2.20)
Details of daily activities		Subjects remain sedentary most of the time and engage mainly in less energetic activities.	Subjects remain sedentary most of the time but the activities include any of the following: move within the work site, work performed while standing, interacting with customers, commuting, shopping, housekeeping, and light sport activities.	Subjects engage in work that require moving or remain standing; or they customarily engage in active athletic activities.
Classification of each activity (hours/day) ²	Sleeping (1.0)	8	7-8	7
	Sedentary or being still while standing (1.5 : 1.1-1.9)	13-14	11-12	10
	Low-intensity activities such as slow walking and housekeeping (2.5 : 2.0-2.9)	1-2	3	3-4
	Mid-intensity activities such as exercise or labor that can be sustained for an extended period (includes normal speed walking) (4.5 : 3.0-5.9)	1	2	3
	Highly-intensity activities, such as exercise or labor that requires frequent rest (7.0 : >6.0)	0	0	0-1

PAL, physical activity level

¹ Representative values. The range is shown in parentheses.

² Data in parentheses is an activity factor (Af: intensity per unit time of each physical activity, expressed in a multiple of the basal metabolism). (Representative value: lower threshold-upper threshold).

(Reference 2)

Examples of physical activity classifications

Classification of physical activities (within the range of Af ¹)	Examples of physical activities
Sleeping (1.0)	Sleeping
Sedentary activities while sitting or standing (1.1-1.9)	Lying down, sit in a relaxed manner (reading books, writing, and watching television), carrying on a conversation (while standing), cooking, dining, toileting activities (dressing, face-washing, and using the toilet facilities), sewing (hand-sewing and operating a sewing machine), engaging in a hobby or entertainment (flower arrangement, tea ceremony, mah-jong, playing musical instrument), driving, desk work (book-keeping and operating a word processor and OA equipment).
Low-intensity activities, such as slow walking or household chores (2.0-2.9)	Standing in a train or bus. Walk slowly for shopping or just enjoy a walk (45 m/min.). Doing laundry (using a washing machine). House cleaning (using a vacuum cleaner).
Mid-intensity exercise or labor that can be sustained for an extended period (including normal walking) (3.0-5.9)	Tend a home vegetable garden. Play gate-ball. Normal walking (71 m/min.). Bathing. Cycling (at a normal speed). Walking with a child on one's back. Playing catch-ball. Playing golf. Dancing (light). Hiking (on level ground). Climbing up and down stairs. Lifting or taking down bedding. Normal walking (95 m/min). Gymnastics (following radio or television instructions).
High-intensity activities such as exercise or labor that require frequent rest (>6.0)	Muscle training, aerobic dancing (active), rowing, jogging (120 m/min), tennis, badminton, volleyball, skiing, basketball, soccer, skating, jogging (160 m/min), swimming, running (200 m/min).

¹ Activity factor (Af) is computed from the relative metabolic rate cited by Numajiri⁴⁵⁾ as follows:

$$Af = \text{energy metabolic rate} + 1.2$$

Each physical activity was based on the mean during the time of activity. The data during rest and interruption were excluded.

Dietary Reference Intakes for Japanese for protein

Sex	Males				Females			
Age	EAR (g/day)	RDA (g/day)	AI (g/day)	DG (% energy) ¹	EAR (g/day)	RDA (g/day)	AI (g/day)	DG (% energy) ¹
0-5 months infants								
Breastfed	-	-	10	-	-	-	10	-
Formula-fed	-	-	15	-	-	-	15	-
6-11 months infants								
Breastfed	-	-	15	-	-	-	15	-
Formula-fed	-	-	20	-	-	-	20	-
1-2 years	15	20	-	-	15	20	-	-
3-5	20	25	-	-	20	25	-	-
6-7	30	35	-	-	25	30	-	-
8-9	30	40	-	-	30	40	-	-
10-11	40	50	-	-	40	50	-	-
12-14	50	60	-	-	45	55	-	-
15-17	50	65	-	-	40	50	-	-
18-29	50	60	-	<20	40	50	-	<20
30-49	50	60	-	<20	40	50	-	<20
50-69	50	60	-	<20	40	50	-	<20
≥70	50	60	-	<25	40	50	-	<25
Pregnant women (amount to be added)	/				+8	+10	-	-
Lactating women (amount to be added)					+15	+20	-	-

¹ The TGs (upper threshold) were set as protein energy ratio (%).

EAR, estimated average requirement, RDA, recommended dietary allowance; AI, adequate intake; DG, tentative dietary goal for preventing life-style related diseases

Dietary Reference Intakes for Japanese for total fat

[Ratio of total lipids to total energy (percentage of fat energy): % energy]

Age	Males		Females	
	AI	DG	AI	DG
0-5 months	50	-	50	-
6-11	40	-	40	-
1-2 years	-	20<, <30	-	20<, <30
3-5	-	20<, <30	-	20<, <30
6-7	-	20<, <30	-	20<, <30
8-9	-	20<, <30	-	20<, <30
10-11	-	20<, <30	-	20<, <30
12-14	-	20<, <30	-	20<, <30
15-17	-	20<, <30	-	20<, <30
18-29	-	20<, <30	-	20<, <30
30-49	-	20<, <25	-	20<, <25
50-69	-	20<, <25	-	20<, <25
≥70 ¹	-	15<, <25	-	15<, <25
Pregnant women			-	20<, <30
Lactating women			-	20<, <30

AI, adequate intake; DG, tentative dietary goal for preventing life-style related diseases

Dietary Reference Intakes for Japanese for saturated fatty acids

(% energy)

Age	Males	Females
	AI (range)	AI (range)
0-5 months	-	-
6-11	-	-
1-2 years	-	-
3-5	-	-
6-7	-	-
8-9	-	-
10-11	-	-
12-14	-	-
15-17	-	-
18-29	4.5<, <7.0	4.5<, <7.0
30-49	4.5<, <7.0	4.5<, <7.0
50-69	4.5<, <7.0	4.5<, <7.0
≥70	4.5<, <7.0	4.5<, <7.0
Pregnant women		
Lactating women		

AI, adequate intake

Saturated fatty acid: C4:0, C6:0, C8:0, C10:0, C12:0, C14:0, C15:0, C16:0, C17:0, C18:0, C20:0, C22:0, C24:0.

Note: When the subject is ≥10 years old and the blood LDL cholesterol level is high, the arteriosclerotic process may progress. Treatment that includes restriction on saturated fatty acids is desired.

Dietary Reference Intakes for Japanese for n-6 fatty acids

Age	Males		Females	
	AI (g/day)	DG (% energy)	AI (g/day)	DG (% energy)
0-5 months	4.0	-	4.0	-
6-11	5.0	-	5.0	-
1-2 years	6.0		6.0	
3-5	8.0		7.0	
6-7	9.0		8.5	
8-9	9.0		10	
10-11	11		11	
12-14	13		10	
15-17	14		11	
18-29	12	<10	10	<10
30-49	11	<10	9.5	<10
50-69	10	<10	9.0	<10
≥70	8.0	<10	7.0	<10
Pregnant women			9.0	<10
Lactating women			10	<10

AI, adequate intake; DG, tentative dietary goal for preventing lifestyle-related diseases

N-6 fatty acids: C16:3, C18:2, C18:3, C20:2, C20:3, C20:4, C22:2, C22:5.

Note: No goal was computed for children; but by using the values set for an adult, it is desirable to avoid excessive intake.

Dietary Reference Intakes for Japanese for n-3 fatty acids (g/day)

Age	Males		Females	
	AI	DG	AI	DG
0-5 months	0.9	-	0.9	-
6-11	1.0	-	1.0	-
1-2 years	1.1	-	1.0	-
3-5	1.5	-	1.5	-
6-7	1.6	-	1.6	-
8-9	1.9	-	2.0	-
10-11	2.1	-	2.1	-
12-14	2.6	-	2.1	-
15-17	2.8	-	2.3	-
18-29	-	>2.6	-	>2.2
30-49	-	>2.6	-	>2.2
50-69	-	>2.9	-	>2.5
≥70	-	>2.2	-	>2.0
Pregnant women			2.1	-
Lactating women			2.4	-

AI, adequate intake; DG, tentative dietary goal for preventing life-style related diseases

N-3 fatty acids: C18:3, C18:4, C20:4, C20:5, C22:5, C22:6.

**Dietary Reference Intakes for Japanese for cholesterol
(mg/day)**

Age	Males	Females
	DG	DG
0-5 months	-	-
6-11	-	-
1-2 years	-	-
3-5	-	-
6-7	-	-
8-9	-	-
10-11	-	-
12-14	-	-
15-17	-	-
18-29	<750	<600
30-49	<750	<600
50-69	<750	<600
≥70	<750	<600
Pregnant women		<600
Lactating women		<600

DG, tentative dietary goal for preventing life-style related diseases

Note: When the subject is ≥10 years-old and the blood LDL cholesterol level is high, the arteriosclerotic process may progress. Treatment that includes restriction on cholesterol intake is desired.

Dietary Reference Intakes for Japanese for carbohydrates (% energy)

Sex Age	Males					Females				
	EAR	RDA	AI	DG	UL	EAR	RDA	AI	DG	UL
0-5 months	-	-	-	-	-	-	-	-	-	-
6-11	-	-	-	-	-	-	-	-	-	-
1-2 years	-	-	-	-	-	-	-	-	-	-
3-5	-	-	-	-	-	-	-	-	-	-
6-7	-	-	-	-	-	-	-	-	-	-
8-9	-	-	-	-	-	-	-	-	-	-
10-11	-	-	-	-	-	-	-	-	-	-
12-14	-	-	-	-	-	-	-	-	-	-
15-17	-	-	-	-	-	-	-	-	-	-
18-29	-	-	-	50<, <70	-	-	-	-	50<, <70	-
30-49	-	-	-	50<, <70	-	-	-	-	50<, <70	-
50-69	-	-	-	50<, <70	-	-	-	-	50<, <70	-
≥70	-	-	-	50<, <70	-	-	-	-	50<, <70	-
Pregnant women (amount to be added)						-	-	-	-	-
Lactating women (amount to be added)						-	-	-	-	-

EAR, estimated average requirement, RDA, recommended dietary allowance; AI, adequate intake; DG, tentative dietary goal for preventing life-style related diseases; UL, tolerable upper intake level

Dietary Reference Intakes for Japanese for dietary fibers (g/day)

Sex	Males					Females				
	EAR	RDA	AI	DG	UL	EAR	RDA	AI	DG	UL
Age										
0-5 months	-	-	-	-	-	-	-	-	-	-
6-11	-	-	-	-	-	-	-	-	-	-
1-2 years	-	-	-	-	-	-	-	-	-	-
3-5	-	-	-	-	-	-	-	-	-	-
6-7	-	-	-	-	-	-	-	-	-	-
8-9	-	-	-	-	-	-	-	-	-	-
10-11	-	-	-	-	-	-	-	-	-	-
12-14	-	-	-	-	-	-	-	-	-	-
15-17	-	-	-	-	-	-	-	-	-	-
18-29	-	-	27	20	-	-	-	21	17	-
30-49	-	-	26	20	-	-	-	20	17	-
50-69	-	-	24	20	-	-	-	19	18	-
≥70	-	-	19	17	-	-	-	15	15	-
Pregnant women (amount to be added)						-	-	-	-	-
Lactating women (amount to be added)						-	-	-	-	-

EAR, estimated average requirement; RDA, recommended dietary allowance; AI, adequate intake; DG, tentative dietary goal for preventing life-style related diseases; UL, tolerable upper intake level

Dietary Reference Intakes for Japanese for vitamin B₁ (mg/day)¹

Sex	Males				Females			
Age	EAR	RDA	AI	UL	EAR	RDA	AI	UL
0-5 months	-	-	0.1	-	-	-	0.1	-
6-11	-	-	0.3	-	-	-	0.3	-
1-2 years	0.4	0.5	-	-	0.4	0.5	-	-
3-5	0.6	0.7	-	-	0.6	0.7	-	-
6-7	0.7	0.9	-	-	0.7	0.8	-	-
8-9	0.9	1.1	-	-	0.8	1.0	-	-
10-11	1.0	1.2	-	-	1.0	1.2	-	-
12-14	1.2	1.4	-	-	1.0	1.2	-	-
15-17	1.2	1.5	-	-	1.0	1.2	-	-
18-29	1.2	1.4	-	-	0.9	1.1	-	-
30-49	1.2	1.4	-	-	0.9	1.1	-	-
50-69	1.1	1.3	-	-	0.9	1.0	-	-
≥70	0.8	1.0	-	-	0.7	0.8	-	-
Pregnant women (amount to be added)	/							
early-stage					+0	+0	-	-
mid-stage					+0.1	+0.1	-	-
late-stage					+0.2	+0.3	-	-
Lactating women (amount to be added)					+0.1	+0.1	-	-

¹ Computed using the Estimated Energy Requirement for PAL II.

EAR, estimated average requirement, RDA, recommended dietary allowance; AI, adequate intake; UL, tolerable upper intake level; PAL, physical activity level

Dietary Reference Intakes for Japanese for vitamin B₂ (mg/day)¹

Sex	Males				Females			
	EAR	RDA	AI	UL	EAR	RDA	AI	UL
Age								
0-5 months	-	-	0.3	-	-	-	0.3	-
6-11	-	-	0.4	-	-	-	0.4	-
1-2 years	0.5	0.6	-	-	0.4	0.5	-	-
3-5	0.7	0.8	-	-	0.6	0.8	-	-
6-7	0.8	1.0	-	-	0.7	0.9	-	-
8-9	1.0	1.2	-	-	0.9	1.1	-	-
10-11	1.2	1.4	-	-	1.1	1.3	-	-
12-14	1.3	1.6	-	-	1.2	1.4	-	-
15-17	1.4	1.7	-	-	1.1	1.3	-	-
18-29	1.3	1.6	-	-	1.0	1.2	-	-
30-49	1.3	1.6	-	-	1.0	1.2	-	-
50-69	1.2	1.4	-	-	1.0	1.2	-	-
≥70	0.9	1.1	-	-	0.8	0.9	-	-
Pregnant women (amount to be added)	/							
early-stage					+0	+0	-	-
mid-stage					+0.1	+0.2	-	-
late-stage					+0.3	+0.3	-	-
Lactating women (amount to be added)					+0.3	+0.4	-	-

EAR, estimated average requirement; RDA, recommended dietary allowance; AI, adequate intake; UL, tolerable upper intake level; PAL, physical activity level

¹ Computed using the Estimated Energy Requirement for PAL II.

Dietary Reference Intakes for Japanese for niacin (mg NE/day)¹

Sex Age	Males				Females			
	EAR	RDA	AI	UL ²	EAR	RDA	AI	UL ²
0-5 months ³	-	-	2	-	-	-	2	-
6-11	-	-	3	-	-	-	3	-
1-2 years	5	6	-	-	4	5	-	-
3-5	7	8	-	-	6	7	-	-
6-7	8	10	-	-	7	9	-	-
8-9	9	11	-	-	9	10	-	-
10-11	11	13	-	-	10	12	-	-
12-14	13	15	-	-	11	13	-	-
15-17	13	16	-	-	11	13	-	-
18-29	13	15	-	300 (100)	10	12	-	300 (100)
30-49	13	15	-	300 (100)	10	12	-	300 (100)
50-69	12	14	-	300 (100)	9	11	-	300 (100)
≥70	9	11	-	300 (100)	7	9	-	300 (100)
Pregnant women (amount to be added)	/							
early-stage					+0	+0	-	-
mid-stage					+1	+1	-	-
late-stage					+2	+3	-	-
Lactating women (amount to be added)					+2	+2	-	-

NE, niacin equivalents; EAR, estimated average requirement, RDA, recommended dietary allowance; AI, adequate intake; UL, tolerable upper intake level, PAL, physical activity level

¹ Computed using the Estimated Energy Requirement for PAL II.

² Quantity (mg) for the upper threshold of nicotinamide. The value in parentheses is the quantity (mg) of nicotinic acid.

³ Unit, mg/day

Dietary Reference Intakes for Japanese for vitamin B₆ (mg/day)¹

Sex	Males				Females			
	EAR	RDA	AI	UL ²	EAR	RDA	AI	UL ²
Age								
0-5 months	-	-	0.2	-	-	-	0.2	-
6-11	-	-	0.3	-	-	-	0.3	-
1-2 years	0.4	0.5	-	-	0.4	0.5	-	-
3-5	0.5	0.6	-	-	0.5	0.6	-	-
6-7	0.7	0.8	-	-	0.6	0.7	-	-
8-9	0.8	0.9	-	-	0.8	0.9	-	-
10-11	1.0	1.2	-	-	1.0	1.2	-	-
12-14	1.1	1.4	-	-	1.0	1.3	-	-
15-17	1.2	1.5	-	-	1.0	1.2	-	-
18-29	1.1	1.4	-	60	1.0	1.2	-	60
30-49	1.1	1.4	-	60	1.0	1.2	-	60
50-69	1.1	1.4	-	60	1.0	1.2	-	60
≥70	1.1	1.4	-	60	1.0	1.2	-	60
Pregnant women (amount to be added)					+0.7	+0.8	-	-
Lactating women (amount to be added)					+0.3	+0.3	-	-

EAR, estimated average requirement, RDA, recommended dietary allowance; AI, adequate intake; UL, tolerable upper intake level, PAL, physical activity level

¹ Computed using the Estimated Energy Requirement for PAL II.

² Quantity as pyridoxine.