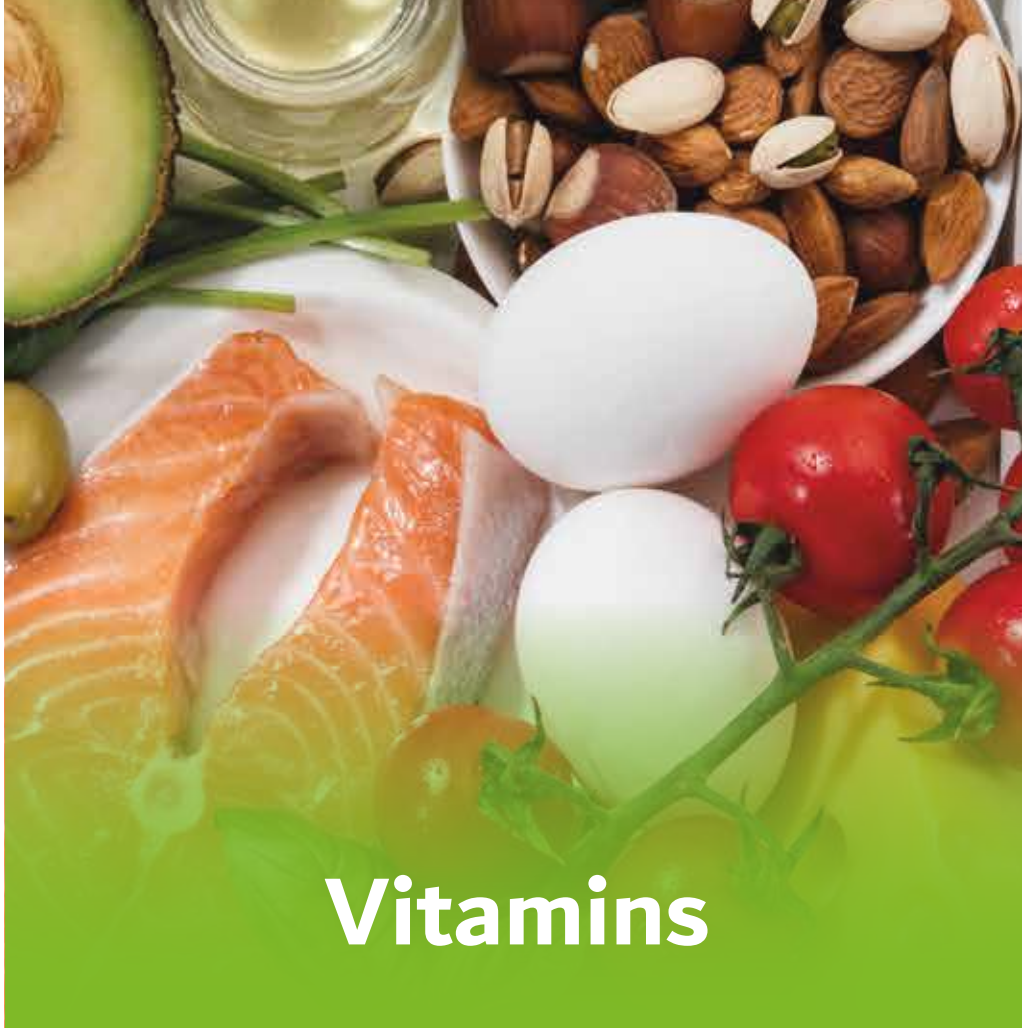


Benefits of vitamins and minerals

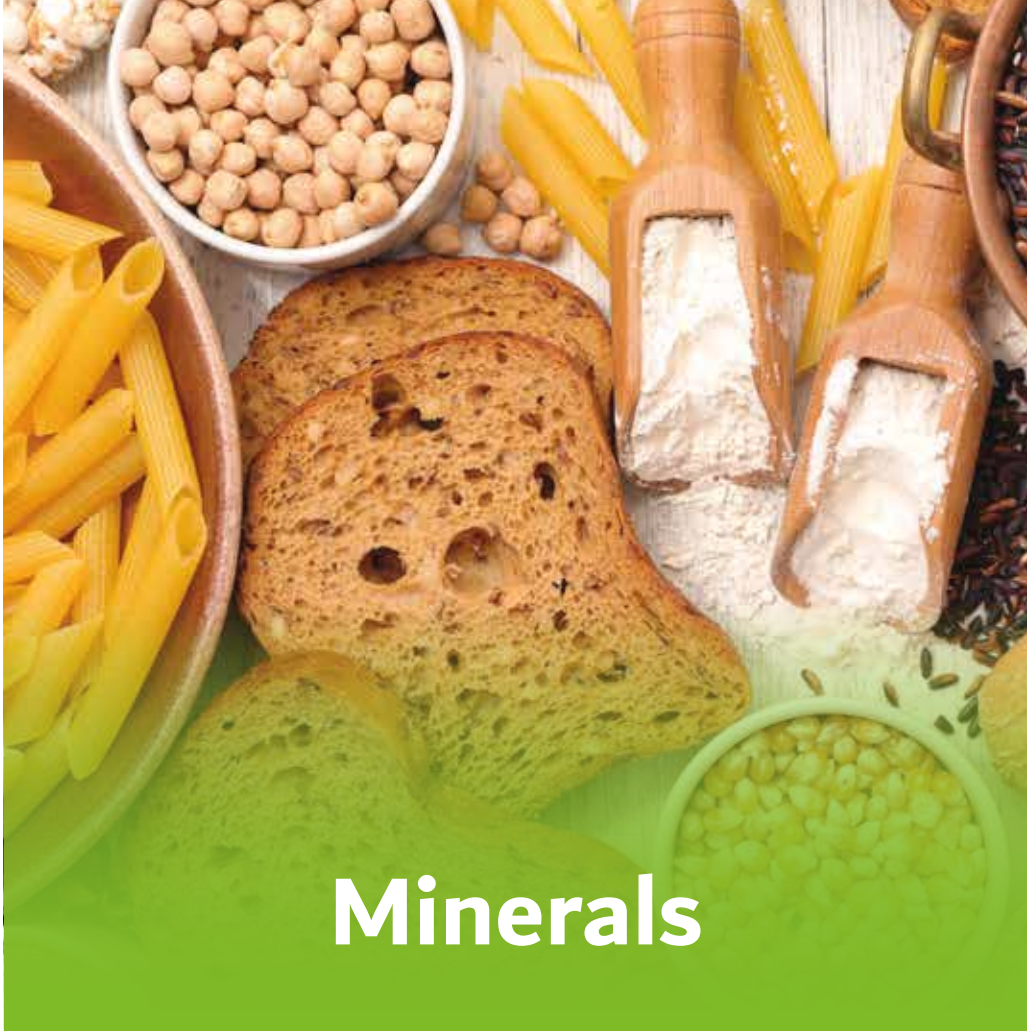




Vitamins are one of the essential nutrients that the body needs for proper development, growth, a healthy body, and for the prevention of many diseases, and the equivalent of 13 types of vitamins are required. Vitamins can be obtained through a balanced and healthy diet.

Vitamins are divided into two categories:

- **Water-soluble vitamins:** All kinds of vitamin (B) and vitamin C
- **Fat-soluble vitamins:** There are four types of vitamins in this category, which are vitamin (A), vitamin (D), vitamin (E), and vitamin (K)



The body needs minerals daily due to their important and essential role in maintaining health and preventing diseases, some of the essential minerals that the body needs are zinc, potassium, magnesium, calcium and iron.

Minerals are necessary to improve the performance of the body, so you should eat foods that contain these essential nutrients to avoid potential problems related to a decrease or increase in these minerals in the body. They are necessary for many vital processes in the body, including fluid balance, maintenance of bones and teeth, and muscle cramps as well as to assist in the functioning of the nervous system.



Vitamin A (Beta-carotene)

The benefits:

Essential for vision, the immune system, and reproduction. Also essential for the growth and building of body tissues and for the formation of skin and bones. It also helps reduce the risk of cancer and promotes healthy skin and hair.

Food sources:

Fish, meat, dairy products, cheeses, eggs, liver, carrots, spinach, red and yellow peppers, sweet potatoes, leafy greens, and pumpkin.



B- complex vitamins Vitamin (B1), Thiamine

The benefits:

It helps the body use carbohydrates as an energy source - reduces nerve, gastrointestinal, and heart diseases.

Food sources:

Whole grains, meats, yeast, nuts, liver, eggs, fruits and some vegetables: broccoli, potatoes and asparagus.



B- complex vitamins

Vitamin (B2), Riboflavin

The body stores minimal amounts of it, so it must be consumed daily from food sources to take an adequate amount of this vitamin.

The benefits:

It maintains the health of the liver, skin, eyes, nerves, and muscles.

It contributes to better digestive health, helps in iron absorption and helps in the development and growth of the fetus.

Food sources:

Eggs, yogurt, milk, whole grains, meat, fish, mushrooms, liver, artichoke, and avocados.



B- complex vitamins

Vitamin (B3) niacin

The benefits:

Maintaining healthy muscles, skin, and hair, reduces the risk of cardiovascular diseases and helps treat high cholesterol.

Food sources:

Meat, chicken, fish, liver, legumes, eggs, mushrooms, leafy greens and nuts.

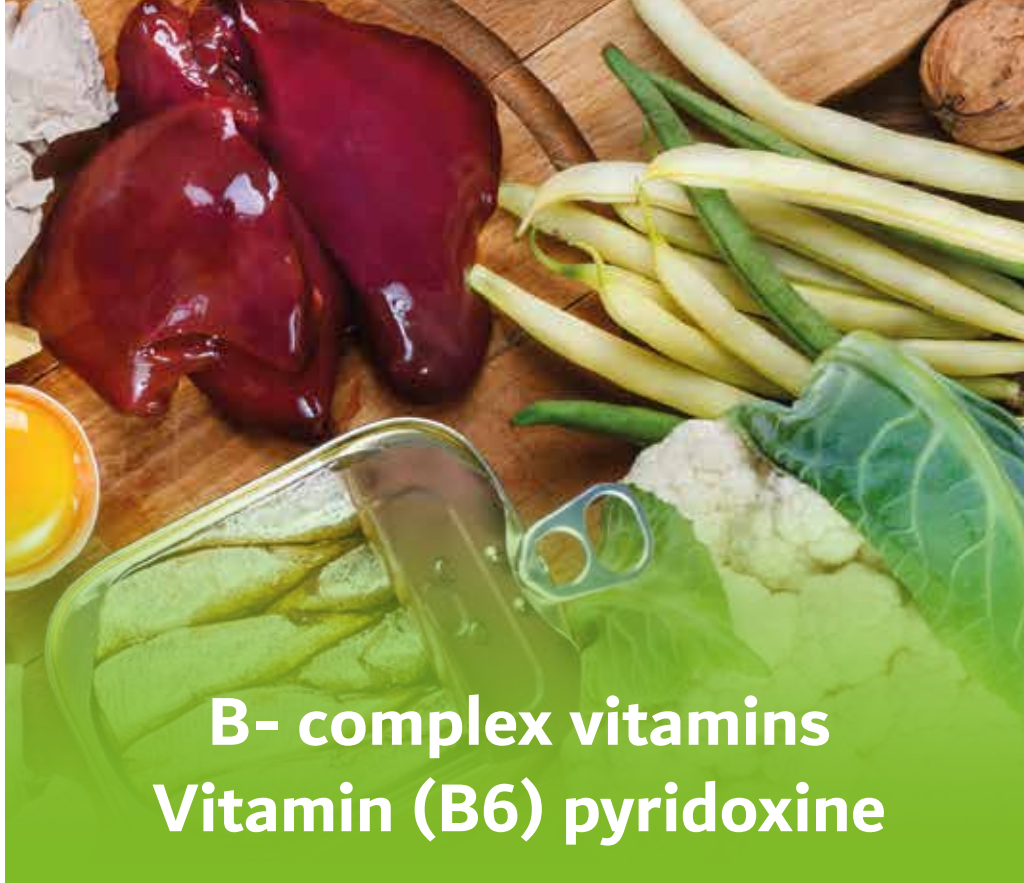


The benefits:

- Helps in protein metabolism
- Moisturizes the skin
- Helps heal wounds on the skin
- Reduces acne problem
- Helps reduce triglycerides in the blood.

Food sources:

Meat, poultry, whole grains, legumes such as lentils and soybeans, dairy products and some vegetables such as mushrooms, sweet potatoes, broccoli, corn, and cauliflower.



B- complex vitamins

Vitamin (B6) pyridoxine

The benefits:

- Maintaining the proper functioning of the nervous system and the brain.
- Helps in the development of children's brains.
- Reduces the risk of strokes, Alzheimer's disease and depression.

Food sources:

Meat, poultry, fish, chickpeas, whole grains, nuts, bananas, potatoes and fortified cereals.



The benefits:

- Necessary for pregnancy and lactation
- For energy production in the body
- Promotes healthy skin, hair, and nails.
- Lowers blood sugar level for diabetics.

Food sources:

Liver, yeast, egg yolks, cheese, legumes, green leafy vegetables, mushrooms and nuts.



B- complex vitamins Vitamin (B9) folic acid

The benefits:

- It is involved in the production of DNA, which is the genetic material in the body.
- It helps in building blood cells in the bone marrow.
- It contributes to achieving normal growth of cells during pregnancy and helps maintain good brain health in infants.

Food sources:

Liver, lentils, milk, vegetables, egg yolks, legumes, avocados, citrus fruits, seeds and nuts.



The benefits:

Essential for healthy brain function.

It helps in the formation and regulation of DNA. It plays a critical role in the synthesis of fatty acids and in the process of producing energy in the body. It helps the body absorb folic acid and in build red blood cells.

Food sources:

Meat, poultry, fish, eggs and dairy products.



The benefits:

- Reduces the risk of strokes.
- Minimizes the appearance of signs of aging such as wrinkles and dry skin.
- Reduces the risk of infections.
- Reduces the risk of cardiovascular disease and cancer.
- Promotes wound and tissue healing

Food sources:

Melon, orange, kiwi, strawberry, broccoli, green peppers, red cabbage, and tomato.



Production of vitamin D in the body takes place upon exposure to sunlight.

It is estimated that exposure to sunlight should be two to three times per week for a period of five to ten minutes per day to allow the body to produce it.

The benefits:

- Promotes calcium and mineral balance.
- Regulates blood pressure.
- Promotes bone health.
- Reduces the risk of diabetes.
- Promotes the health of children.
- Contributes to maintaining the health of pregnant women and the fetus during pregnancy.

Food sources:

Available when exposed to sunlight, fortified foods, cereals, soy milk, eggs, cod liver oil, tuna, salmon, sardines and fortified milk.



Vitamin E

The benefits:

- Helps repair damaged cells in the body.
- Reduces damage caused by free radicals.
- Slows down the aging process of body cells.

Food sources:

Olive oil, avocados, apples, seeds, kiwi, mango, whole grains, hazelnuts, almonds, peanuts, spinach, broccoli, and tomatoes.



It is one of the essential vitamins that the body needs to produce a protein that coagulates blood and renews bones

The benefits:

Promotes bone and cognitive health; such as improving episodic memory and verbal memory in the elderly. Promotes heart health and reduce the risk of strokes.

Food sources:

Green leafy vegetables, meat, eggs, dairy products, vegetable oils, and some fruits; like grapes



The benefits:

Iron is one of the essential elements of the body, which is necessary for the production of hemoglobin in the blood, which leads to the prevention of anemia and helps to transport oxygen throughout the body, produce energy, and store oxygen in the muscles, so it is important to make sure to eat foods rich in iron.

Food sources:

Leafy greens, cabbage, beans, pumpkin seeds, figs, dried apricots, parsley, spinach, red meat and liver.



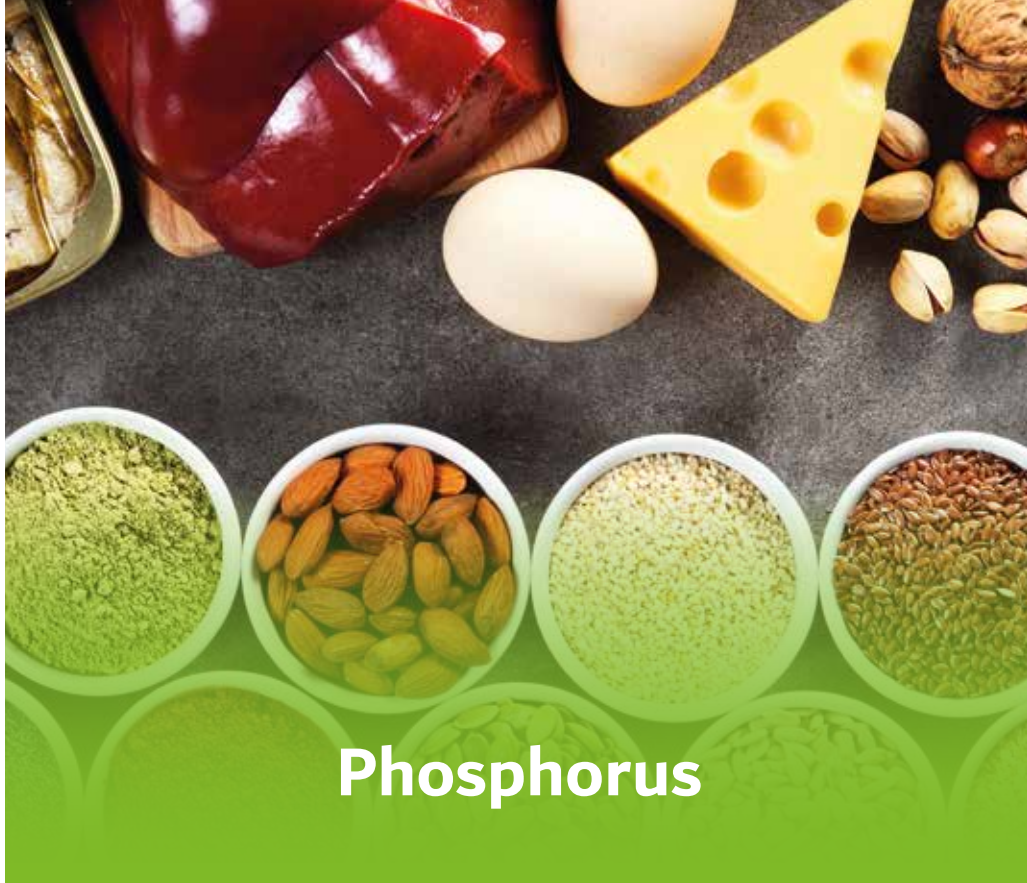
People who benefit from additional doses of calcium: Anyone who has inadequate intake of calories or nutrients, or who has increased nutritional needs, who suffers from an allergy to milk and dairy products, and who is over the age of 55, especially women.

The benefits:

- To strengthen teeth and bones.
- Essential for blood clotting, regulates the nervous system and muscle function.

Food sources:

Almonds, spinach, broccoli, soy milk and dairy.



The benefits:

Phosphorous is essential for bone growth and normal cell membrane function. It works with B complex vitamins to convert the foods eaten into energy that the body needs for all daily activities, and phosphorus is stored in the bones.

Food sources:

Meat, poultry, fish, eggs, milk and dairy products, nuts, seeds and legumes.



The benefits:

Potassium is needed by the body to promote a normal nervous system function and resist muscle contraction and to maintain a healthy heartbeat and normal blood pressure balance.

Food sources:

Avocado, banana, dates, mango, dried apricots, guava, kiwi, broccoli, peas, lentils and potatoes.



Chlorine

The body needs chlorine to form gastric juices, and it is also found along with sodium in the surrounding fluid in cells.

The benefits:

Chlorine works with sodium to help maintain the balance of body fluids.

Food sources:

Chlorine is found in table salt, and many vegetables include celery and tomatoes.



The benefits:

Sodium works with chlorine to maintain fluid balance outside the cells, and sodium intake is essential for regulating blood pressure.

Food sources:

Table salt, cheeses, seafood, tomatoes and spices.

Important note: Be careful not to overeat salt



Magnesium

More than half of the magnesium in the human body is found in the bones and teeth, and the rest is distributed in the delicate tissues, including the heart tissues and body fluids such as blood and others. Magnesium creates a balance with the action of calcium in the body. For example, calcium works to contract muscles, while magnesium helps them relax. Magnesium can be obtained

The benefits:

- **Helps bone growth.**
- **Helps nerves and muscles function.**
- **Strengthens tooth enamel.**
- **Has an essential role in protein synthesis.**
- **Contributes to expelling some toxic substances from the body.**
- **Helps convert fats and carbohydrates into energy necessary to control blood sugar and regulate blood pressure.**

Food sources:

Green leafy vegetables, whole grains, soybeans, avocados, bananas, apricots, cashews and almonds.



The benefits:

- Necessary to strengthen the immune system.
- Heal wounds.
- Helps maintain the sense of smell and taste.
- It plays an essential role in the secretion of intestinal acid.
- It helps in regulating blood pressure and promotes normal growth.
- Improves immunity.

Food sources:

Leafy greens, pumpkin seeds, sesame seeds, lentils, almonds and whole grains.



Iodine

The benefits:

Iodine is a major nutrition component. The body needs it for thyroid and brain function and normal growth.

Food sources:

Dairy products, vegetables, fruits, eggs and tuna.








The benefits:

- Antioxidant.
- Boosts immunity.
- Improves heart health.
- Regulates blood sugar level.
- Relieves asthma symptoms.
- Helps remove toxins from the body.






Food sources:

Eggs, poultry, tuna, oats, mushrooms, cheese and nuts.






Dietary Reference Intake (DRIs): Recommended Intakes for Individuals

Age group in years	Vitamin A (mcg/day)	Vitamin C (mg/day)	Vitamin D (mcg/day)	Vitamin E (mg/day)	Vitamin K (mcg/day)
Children					
 1-3	300	15	5 =200 IU	6	30
4-8	400	25	5 =200 IU	7	55
Males					
 9-13	600	45	5 =200 IU	11	60
14-18	900	75	5 =200 IU	15	75
19-30	900	90	5 =200 IU	15	120
31-50	900	90	5 =200 IU	15	120
50-70	900	90	10 =400 IU	15	120
70>	900	90	15 =600 IU	15	120
Females					
 9-13	600	45	5 =200 IU	11	60
14-18	700	65	5 =200 IU	15	75
19-30	700	75	5 =200 IU	15	90
31-50	700	75	5 =200 IU	15	90
50-70	700	75	10 =400 IU	15	90
70>	700	75	15 =600 IU	15	90
Pregnant Women					
 ≤ 18	750	80	5 =200 IU	15	75
19-30	770	85	5 =200 IU	15	90
31-50	770	85	5 =200 IU	15	90
Lactating Women					
 ≤ 18	1200	115	5 =200 IU	19	75
19-30	1300	120	5 =200 IU	19	90
31-50	1300	120	5 =200 IU	19	90






Dietary Reference Intake (DRIs): Recommended Intakes for Individuals

Age group in years	Vitamin B1 (mg/day)	Vitamin B2 (mg/day)	Vitamin B3 (mg/day)	Vitamin B5 (mg/day)
Children				
 1-3	0.5	0.5	6	2
4-8	0.6	0.6	8	3
Males				
 9-13	0.9	0.9	12	4
14-18	1.2	1.3	16	5
19-30	1.2	1.3	16	5
31-50	1.2	1.3	16	5
50-70	1.2	1.3	16	5
70>	1.2	1.3	16	5
Females				
 9-13	0.9	0.9	12	4
14-18	1.0	1.0	14	5
19-30	1.1	1.1	14	5
31-50	1.1	1.1	14	5
50-70	1.1	1.1	14	5
70>	1.1	1.1	14	5
Pregnant Women				
 ≤ 18	1.4	1.4	18	6
19-30	1.4	1.4	18	6
31-50	1.4	1.4	18	6
Lactating Women				
 ≤ 18	1.4	1.6	17	7
19-30	1.4	1.6	17	7
31-50	1.4	1.6	17	7






Dietary Reference Intake (DRIs): Recommended Intakes for Individuals

Age group in years	Vitamin B6 (mg/day)	Vitamin B7 (mcg/day)	Vitamin B9 (mcg/day)	Vitamin B12 (mcg/day)
Children				
 1-3	0.5	8	150	0.9
4-8	0.6	12	200	1.2
Males				
 9-13	1.0	20	300	1.8
14-18	1.3	25	400	2.4
19-30	1.3	30	400	2.4
31-50	1.3	30	400	2.4
50-70	1.7	30	400	2.4
70>	1.7	30	400	2.4
Females				
 9-13	1.0	20	300	1.8
14-18	1.2	25	400	2.4
19-30	1.3	30	400	2.4
31-50	1.3	30	400	2.4
50-70	1.5	30	400	2.4
70>	1.5	30	400	2.4
Pregnant Women				
 ≤ 18	1.9	30	80	80
19-30	1.9	30	85	85
31-50	1.9	30	85	85
Lactating Women				
 ≤ 18	2.0	30	500	2.8
19-30	2.0	30	500	2.8
31-50	2.0	30	500	2.8

Dietary Reference Intake (DRIs): Recommended Intakes for Individuals

Age group in years	Calcium (mg/day)	Iodine (mg/day)	Iron (mg/day)	Magnesium (mcg/day)	Phosphorus (mg/day)
Children					
 1-3	500	90	7	80	460
4-8	800	90	10	130	500
Males					
 9-13	1300	120	8	240	1250
14-18	1300	150	11	410	1250
19-30	1000	150	8	400	700
31-50	100	150	8	420	700
50-70	1200	150	8	420	700
70>	1200	150	8	420	700
Females					
 9-13	1300	120	8	240	1250
14-18	1300	150	15	360	1250
19-30	1000	150	18	310	700
31-50	1000	150	18	320	700
50-70	1200	150	8	320	700
70>	1200	150	8	320	700
Pregnant Women					
 ≤ 18	1300	220	27	400	1250
19-30	1000	220	27	350	700
31-50	1000	220	27	360	700
Lactating Women					
 ≤ 18	1300	290	10	360	1250
19-30	1000	290	9	310	700
31-50	1000	290	9	320	700

Dietary Reference Intake (DRIs): Recommended Intakes for Individuals

Age group in years	Selenium (mcg/day)	Zinc (mg/day)	Potassium (g/day)	Sodium (g/day)	Chloride (g/day)
Children					
 1-3	20	3	3.0	1.0	1.5
4-8	30	5	3.8	1.2	1.9
Males					
 9-13	40	8	4.5	1.5	2.3
14-18	55	11	4.7	1.5	2.3
19-30	55	11	4.7	1.5	2.3
31-50	55	11	4.7	1.5	2.3
50-70	55	11	4.7	1.3	2.0
70>	55	11	4.7	1.2	1.8
Females					
 9-13	40	8	4.5	1.5	2.3
14-18	55	9	4.7	1.5	2.3
19-30	55	8	4.7	1.5	2.3
31-50	55	8	4.7	1.5	2.3
50-70	55	8	4.7	1.3	2.0
70>	55	8	4.7	1.2	1.8
Pregnant Women					
 ≤ 18	60	12	4.7	1.5	2.3
19-30	60	11	4.7	1.5	2.3
31-50	60	11	4.7	1.5	2.3
Lactating Women					
 ≤ 18	70	13	5.1	1.5	2.3
19-30	70	12	5.1	1.5	2.3
31-50	70	12	5.1	1.5	2.3