

Sub: Celebrations of the 75th Anniversary of India's Independence from 12th March 2021 – "AZADI KA AMRIT MAHOTSAV"

Ref: Memorandum No.CTI-NAIR/PERN/4/2021 dated: 28.07.2021.

** * * * *

With reference to the above,

- (i) Posters on various India's indigenous verities of Fruits/Vegetables etc. with their nutritional and medicinal aspects have been demonstrated/pasted in Mess Hall

विटामिन व संतुलित आहार
 अणु, विन व विभिन्न आयुवर्गों के अनुसार उचित की आवश्यकताएं

उम्र	पुरुष	महिला
1-4 वर्ष	1550-1850	1450-1750
5-12 वर्ष	2250-2325	2100-2200
13-17 वर्ष	2850-3050	2650-2850
18-24 वर्ष	3050-3350	2850-3150
25-34 वर्ष	3350-3650	3150-3450
35-44 वर्ष	3350-3650	3150-3450
45-54 वर्ष	3350-3650	3150-3450
55-64 वर्ष	3350-3650	3150-3450
65-74 वर्ष	3350-3650	3150-3450
75-84 वर्ष	3350-3650	3150-3450
85-94 वर्ष	3350-3650	3150-3450
95-104 वर्ष	3350-3650	3150-3450

विटामिन

- विटामिन A (Retinol):** For healthy vision, skin, and mucous membranes. Sources: Liver, carrots, spinach.
- विटामिन B1 (Thiamine):** Essential for energy metabolism. Sources: Grains, legumes.
- विटामिन B2 (Riboflavin):** Essential for energy metabolism. Sources: Milk, eggs, green leafy vegetables.
- विटामिन B6 (Pyridoxine):** Essential for protein metabolism. Sources: Fish, poultry, legumes.
- विटामिन B12 (Cobalamin):** Essential for red blood cell formation. Sources: Meat, fish, dairy.
- विटामिन C (Ascorbic Acid):** Antioxidant, boosts immunity. Sources: Citrus fruits, berries.
- विटामिन D (Calciferol):** Essential for bone health. Sources: Sunlight, fatty fish.
- विटामिन E (Tocopherol):** Antioxidant, protects cells. Sources: Nuts, seeds, vegetable oils.
- विटामिन K (Phylloquinone):** Essential for blood clotting. Sources: Leafy green vegetables.
- Folic Acid:** Essential for DNA synthesis. Sources: Leafy greens, legumes.

Vitamins & Balanced Diet
 Energy Requirement according to Age, Sex & Special Needs

Age	Energy Requirement (Calories)
1-4 months	550-650
4-12 months	725-1225
1-2 years	950-1050
4-6 years	1325-1380
7-10 years	1650-2000
11-14 years	1900-2000
15-18 years	1900-2300
19-22 years	1700-2300
23-50 years	1900-2400
51-75 years	1400-2300

Proteins: Necessary for building, maintaining & repairing body tissues. Essential for enzymes and hormone production. Sources: Meat, fish, eggs, dairy, legumes.

Carbohydrates: Supply energy for growth and activity. Needed for proper utilization of other nutrients. Sources: Grains, fruits, vegetables.

Fats: Needed for growth & replacement of certain tissues. Source of energy. Essential for absorption of vitamins A, D, E, K. Sources: Oils, nuts, seeds.

Water & Roughage: Water transports nutrients to various parts of the body and helps in digestion and excretion. Roughage maintains good digestion and aids bowel movement. Sources: Water, fruits, vegetables.

Vitamins

- Vitamin A (Retinol):** For healthy vision, skin, and mucous membranes. Sources: Liver, carrots, spinach.
- Vitamin B1 (Thiamine):** Essential for energy metabolism. Sources: Grains, legumes.
- Vitamin B2 (Riboflavin):** Essential for energy metabolism. Sources: Milk, eggs, green leafy vegetables.
- Vitamin B6 (Pyridoxine):** Essential for protein metabolism. Sources: Fish, poultry, legumes.
- Vitamin B12 (Cobalamin):** Essential for red blood cell formation. Sources: Meat, fish, dairy.
- Vitamin C (Ascorbic Acid):** Antioxidant, boosts immunity. Sources: Citrus fruits, berries.
- Vitamin D (Calciferol):** Essential for bone health. Sources: Sunlight, fatty fish.
- Vitamin E (Tocopherol):** Antioxidant, protects cells. Sources: Nuts, seeds, vegetable oils.
- Vitamin K (Phylloquinone):** Essential for blood clotting. Sources: Leafy green vegetables.
- Folic Acid:** Essential for DNA synthesis. Sources: Leafy greens, legumes.

Vitamins & Balanced Diet

FOOD & NUTRITION

PROTEINS	CARBOHYDRATES	FATS	WATER & ROUGHAGE
<p>Proteins are building, maintaining & repairing tissues. They are essential for growth and development. They also provide energy. Proteins are found in meat, fish, eggs, milk, soybeans, peas, beans, lentils, nuts, seeds, tofu, and quinoa.</p>	<p>Carbohydrates are the body's main source of energy. They are found in rice, wheat, corn, potatoes, beans, lentils, peas, nuts, seeds, tofu, and quinoa.</p>	<p>Fats are essential for growth & development of the body. They also provide energy. Fats are found in olive oil, coconut oil, butter, ghee, margarine, nuts, seeds, tofu, and quinoa.</p>	<p>Water is essential for life. It is found in fruits, vegetables, nuts, seeds, tofu, and quinoa. Roughage is also essential for life. It is found in fruits, vegetables, nuts, seeds, tofu, and quinoa.</p>
Vitamins			
Vitamin A (Retinol) <p>Essential for vision, immune system, and skin health. Sources: Carrots, spinach, sweet potatoes, milk, eggs, liver, fish oils.</p>	Vitamin B1 (Thiamine) <p>Essential for energy production and nerve function. Sources: Whole grains, pork, beans, lentils, peas, nuts, seeds, tofu, quinoa.</p>	Vitamin B2 (Riboflavin) <p>Essential for energy production and cell growth. Sources: Milk, eggs, meat, fish, soybeans, peas, beans, lentils, nuts, seeds, tofu, quinoa.</p>	Vitamin B3 (Niacin) <p>Essential for energy production and DNA repair. Sources: Meat, fish, eggs, milk, soybeans, peas, beans, lentils, nuts, seeds, tofu, quinoa.</p>
Vitamin B5 <p>Essential for energy production and cell growth. Sources: Meat, fish, eggs, milk, soybeans, peas, beans, lentils, nuts, seeds, tofu, quinoa.</p>	Vitamin B6 (Pyridoxine) <p>Essential for energy production and immune system. Sources: Meat, fish, eggs, milk, soybeans, peas, beans, lentils, nuts, seeds, tofu, quinoa.</p>	Vitamin B9 (Cobalamin) <p>Essential for energy production and DNA repair. Sources: Meat, fish, eggs, milk, soybeans, peas, beans, lentils, nuts, seeds, tofu, quinoa.</p>	Vitamin C <p>Essential for immune system and collagen production. Sources: Citrus fruits, strawberries, kiwi, broccoli, spinach, bell peppers, tomatoes, potatoes, beans, lentils, peas, nuts, seeds, tofu, quinoa.</p>
Vitamin D <p>Essential for bone health and immune system. Sources: Sunlight, fatty fish, eggs, milk, soybeans, peas, beans, lentils, nuts, seeds, tofu, quinoa.</p>	Vitamin E (Tocopherol) <p>Essential for immune system and cell growth. Sources: Nuts, seeds, tofu, quinoa.</p>	Vitamin K <p>Essential for blood clotting and bone health. Sources: Leafy green vegetables, nuts, seeds, tofu, quinoa.</p>	Folic acid <p>Essential for DNA synthesis and cell growth. Sources: Leafy green vegetables, legumes, nuts, seeds, tofu, quinoa.</p>
Minerals			
Calcium <p>Essential for bone health and muscle function. Sources: Milk, dairy products, leafy green vegetables, nuts, seeds, tofu, quinoa.</p>	Phosphorus <p>Essential for energy production and cell growth. Sources: Meat, fish, eggs, milk, soybeans, peas, beans, lentils, nuts, seeds, tofu, quinoa.</p>	Potassium <p>Essential for energy production and nerve function. Sources: Bananas, potatoes, beans, lentils, peas, nuts, seeds, tofu, quinoa.</p>	Magnesium <p>Essential for energy production and cell growth. Sources: Nuts, seeds, tofu, quinoa.</p>
Iron <p>Essential for oxygen transport and energy production. Sources: Meat, fish, eggs, milk, soybeans, peas, beans, lentils, nuts, seeds, tofu, quinoa.</p>	Iodine <p>Essential for thyroid function and cell growth. Sources: Seafood, dairy products, nuts, seeds, tofu, quinoa.</p>	Sodium <p>Essential for fluid balance and nerve function. Sources: Salt, dairy products, nuts, seeds, tofu, quinoa.</p>	Chlorine <p>Essential for fluid balance and nerve function. Sources: Table salt, dairy products, nuts, seeds, tofu, quinoa.</p>

Food & Nutrition

HEALTHY FOOD

VITAMIN CHART

VITAMIN A 	
VITAMIN B1 	
VITAMIN B2 	
VITAMIN B3 	
VITAMIN B5 	
VITAMIN B6 	
VITAMIN B12 	
VITAMIN C 	
VITAMIN D 	
VITAMIN E 	
VITAMIN K 	

Healthy Food

Food Pyramid

Food pyramid is a pyramid-shaped nutrition guide divided into sections to show the recommended intake for each food group.

COMPONENTS OF FOOD

BALANCED DIET

Diet which contains all the nutrients in proper amounts to help in normal growth and development.

Food Pyramid

MINERALS खनिज

SODIUM <ol style="list-style-type: none"> Regulate water distribution in the body. Essential for nerve and muscle function. Acid-base balance in the body. Nerve and muscle function. 	POTASSIUM <ol style="list-style-type: none"> Regulating nerve impulses. Regulating blood pressure. Regulating muscle contraction.
CALCIUM <ol style="list-style-type: none"> For healthy bones and teeth. Blood clotting. Nerve conduction. 	PHOSPHORUS <ol style="list-style-type: none"> For healthy bones and teeth. Formation of nucleic acid. Formation of ATP.
IRON <ol style="list-style-type: none"> For haemoglobin synthesis in the blood. For oxygen transport in the blood. Immune function. 	IODINE <ol style="list-style-type: none"> Thyroid hormone synthesis. Regulating body temperature. Reproduction.
FLUORINE <ol style="list-style-type: none"> Stronger teeth. Disinfects tooth enamel. Reduces risk of osteoporosis. 	ZINC <ol style="list-style-type: none"> Cofactor in enzyme function. Gene expression. Sexual maturation. Fetal development.
COPPER <ol style="list-style-type: none"> Involved in electron transport. Synthesis of connective tissue. Synthesis of melanin. 	CHLORIDE <ol style="list-style-type: none"> Major anion in extracellular fluid. Electrolyte balance. Component of gastric juice.

Minerals



First Aid Essentials

- (ii) Officers Mess of National Academy of Indian Railways (NAIR), has certification to ISO 22000:2018 and strives to achieve Excellence in providing Quality Food Services to Trainee/ Guest officers & Probationers undergoing training at NAIR complying with applicable food safety requirements, statutory and regulatory requirements and mutually agreed requirements related to food safety. Mess has adopted the policy of continual improvement with measurable food safety objectives, competence of personnel related to food safety and regular IQA’s.



Certificate of Registration

SPME & Secy./MMC

