



INDIAN DIETETIC ASSOCIATION (IDA)



International Day of Older Persons

“PANDEMICS : DO THEY CHANGE HOW WE ADDRESS AGE AND AGEING”



“PEOPLE WHO HAVE WALKED THE PATH WE HAVE TAKEN, MUCH BEFORE US”

KNOW ABOUT OLDER PERSONS



Most developed world countries have accepted the chronological age of 65 years as a definition of 'elderly'



Geriatric nutrition applies to nutrition principles to delay effects of ageing and disease, to aid in the management of the physical, psychological and psychosocial changes commonly associated with growing old



GLOBAL INITIATIVES TO LIVE HEALTHIER

To ensure adults live not only longer but healthier lives, a *Global strategy and action plan on ageing and health* was adopted in May 2016 by the World Health Assembly

FACTORS AFFECTING QUALITY OF LIFE

PHYSIOLOGICAL CHANGES



- **Bone and Joints** : Ligaments and joints become less elastic, leading to Osteoarthritis
- **Muscle and body fat** : Decreased muscle tissue and strength. Body composition changes as fat replaces muscles leading to Sarcopenia



- **Mouth, Nose, Ear** : Diminished taste, smell, hearing loss
- **Eye** : Loss of vision, change in colour perception
- **Skin** : Thin, less elastic and wrinkled



- **Heart and Blood Vessels** : Stiffness of blood vessels, decreased pumping of capacity of the heart
- **Respiratory Changes** : Less oxygen is absorbed in breathed air



- **Brain and nervous system** : Nerve cells in the brain decrease. Nerve cells may lose some of the receptors
- **Immune system** : Causes infections and allergies

PSYCHOLOGICAL CHANGES

- Anxiety, Depression, Dementia, Substance Abuse
- Social & Emotional changes
- Loss of autonomy, grief, fear, loneliness, financial constraints, lack of social network, feeling unworthy and unwanted
- Old age is usually associated with poor nutrition & depression
- Poor appetite, irritability, anger, self neglect, compromised personal hygiene
- Use Validated screening tests for Nutrition status - Mini Nutrition Assessment
- Encourage leisure activity to enhance self worth & establish social connectivity
- Ensure physical activity to improve appetite
- Counseling and medications as required



MACRO NUTRIENT REQUIREMENT

WITH ADVANCING AGE, BODY COMPOSITION CHANGES AFFECTING NUTRITIONAL NEEDS

ENERGY

- Reduced amounts of calories, as total energy requirements and physical activity decrease with ageing.
- ICMR has no specific recommendations for elderly population. Requirements are based on the height, weight, co morbidities and activity levels. 25-30 kcals/kg body weight based on nature of work and activity.



PROTEIN

- Strengthens and protects muscles and improves immune system
- Minimum of 20% of the total energy requirement has to be contributed from proteins



FAT

- Essential for hormone synthesis. Reduce dietary fat, especially saturated fat
- Good fats are cardio protective and good for mental health viz. Omega 3 fatty acids
- Minimum of 25% of the total energy requirement should be contributed from fats



MICRO NUTRIENT REQUIREMENT

ELDERLY NEED MORE CALCIUM, IRON, ZINC, VITAMINS AND ANTIOXIDANTS TO PREVENT AGE-RELATED DEGENERATIVE DISEASES AND FOR HEALTHY AGEING

CALCIUM : 1000 mg - 1200 mg / Day

- Essential to compensate age related bone loss, to improve calcium phosphorous balance and prevent fractures
- Low calcium in gut is compensated by the calcium from bones, also low Vitamin D state, affects calcium absorption
- **Foods to be included** : Milk and milk products, Soy, Almonds & Gingelly seeds and Vitamin D fortified foods



IRON : 28 - 30 mg / Day VITAMIN C REQUIREMENT : 40 mg / Day

- Iron deficiency is seen in elderly due to inadequate iron intake, blood loss due to chronic disease
- Vitamin C deficiency also reduces iron absorption
- **Foods to be included** : Green leafy vegetables, Dried Dates, Dried Raisins, Lemon, Oranges, Gooseberries, Mango, Black berries & green leafy vegetables (Drumstick leaves in raw form) for Vitamin C



ZINC : 10 - 12 mg / Day

- Essential to build immunity, for wound healing, for senses of smell and taste, also for appetite regulation
- **Foods to be included** : Nuts, whole grams (sprouted) and poultry & sea foods



MEETING MICRONUTRIENT REQUIREMENTS IS A CHALLENGE BUT POSSIBLE WITH RIGHT NUTRITION ADVICE

AGE RELATED CHANGES AND NUTRITION

CHEWING DIFFICULTY

- Loosened teeth
- Ill fitting dentures
- Dry mouth

REDUCED TASTE

- Loss of taste buds
- Diminished taste and smell

POOR DIGESTION

- Drug and Nutrient Interaction
- Illness
- Poor Emotional Quotient

POOR APPETITE

- Reduced salivary secretion
- Reduced gastric secretion
- Nausea
- Flatulence

SUGGESTIONS

Soft well cooked

- Cereal - Rice, Khichdi
- Lentils - Dals and Grams
- Vegetables & Fruits
- Ragi & Wheat porridges
- Well cooked dals & whole grams
- Meat / Fish stews, Soft cooked eggs
- Skimmed Milk, Curd, Paneer, Custard, Puddings, Smoothies

- Addition of flavor by adding herbs - coriander, mint and curry leaves
- Mild roasted spices
- Aromatics - ginger, garlic & asafoetida
- Salt - for seasoning

- Small, frequent meals
- Soft cooked and easy to digest
- Nutrient dense snacks
- Include foods from all food groups in one meal
- Adequate intake of water

- Reduce intake of foods fatty meals and excess of caffeine
- Ensure two hour gap after meals before lying down
- Include light physical activity
- Restrict alcohol intake



NUTRITION RELATED PROBLEMS

CONDITION	POSSIBLE REASONS	NUTRITION TIPS
MALNUTRITION	Insufficient food intake, poor food choices, nutrient losses, poor absorption of nutrients	- Small and frequent meals, balanced diet - Guidance to include all the food groups in the right proportion
CONSTIPATION	Low fibre intake, reduced activity, inadequate water intake, laxative abuse	- Include fibre in the diet - Drink adequate water
ANAEMIA	Nutritional iron deficiency, renal failure, infections, chronic conditions like heart disease	- Supplement Iron from food - Improve iron absorption by adding Vitamin C in the diet - Eliminate food items that hinder iron absorption ex. Tea & Coffee - Space calcium and iron rich foods / supplements
TYPE 2 DIABETES	Age related insulin deficiency and insulin resistance	- Appropriate choice of Carbohydrates, such as complex carbohydrates - Adherence to the regular meal timings - Emphasis on including fibre rich food items to reduce the glycemic index and load
HYPERTENSION & HEART DISEASE	- Blood Pressure and Cardiovascular diseases - Excess fat and salt intake due to diminished taste	- High fibre diet with plenty of vegetables and fruits - Limit fat intake, especially trans fats that are present in bakery and packaged fried foods - Limit salt intake to 4gms i.e. 3/4th of a teaspoon levelled per day, it will vary based on severity of disease - Restrict processed and preserved foods like that contain sodium, ex. pickles, papads, salted snacks
OSTEOARTHRITIS & OSTEOPOROSIS	- Depletion of cartilage tissue that surrounds the bones in a joint due to wear and tear - Reduction in bone density causing fractures, especially in elderly women due to low levels of oestrogen	- Weight maintenance - Include skimmed milk and milk products & spinach - Include Fatty fish (mackerel, pomfret, rohu), flax seeds for omega 3 fatty acids - Vitamin D supplementation for calcium absorption or Cooking oil or milk fortified with Vit D

Reference : Geriatric Anemia: An Indian perspective; Indian Journal of Hematology and Blood 2013 Jun; 29(2): 126–127

Malnutrition in the Elderly: A Multifactorial Failure to Thrive; The Permanente Journal 2005 Summer; 9(3): 38–41, Osteoporosis in Aging: News in Health; January 2015

Diabetes in the Elderly; Prz Menopauzalny. 2017 Jun; 16(2): 38–43

Hypertension in the Elderly; World J Cardiol. 2012 May 26; 4(5): 135–147

BOOST MENTAL HEALTH INCLUDE



- Pulses and lentils, green leafy vegetables, fish and eggs (Vitamin B9)
- Vitamin E rich foods - Almonds, pistachio, eggs, spinach
- Vitamin B12 rich foods - Eggs, chicken, fish or B12 supplementation if vegetarian

TYPE OF EXERCISE

Exercise to maintain equilibrium - Standing on one foot

Aerobic Exercise - walking, dancing, Swimming

Stretching Exercises - Walking up and down stairs & Yoga

Brain Exercises - Sudoku

BENEFITS OF EXERCISE

Fall Prevention

Increased strength

Improves flexibility

Challenge the mind to “Use it or Loose it”, Increases blood flow to the brain, might improve IQ

May reduces risk of Dementia, Alzheimer’s disease

RECOMMENDATION : 30 MINUTES WALKING 4-5 DAYS A WEEK

TAKE HOME MESSAGE

Eat healthy



Ensure a balanced diet



Vitamin D sunlight exposure or supplementation



Be physically active



Take care of physical well-being



Stay connected with social activities



Family members have to involve them in activities, give them time and attention to make them feel loved and wanted



- Seek right nutrition advice from qualified dietitian for optimal nutrition
- Key for good health -
Eat right
Exercise
Be happy



Compiled & Contributed by Indian Dietetic Association (IDA), Bangalore Chapter

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