

AGEING AND NUTRITION: AN AYURVEDIC PHYSIOLOGICAL PERSPECTIVE

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ABSTRACT

Ageing (Jara) is a natural, progressive, and irreversible physiological process characterized by gradual decline in structural and functional capacities of the body. Ayurveda considers ageing as a manifestation of Kala (time) and describes it as a stage dominated by Vata Dosha. Nutrition plays a crucial role in promoting healthy ageing by maintaining Agni (digestive and metabolic fire), nourishing Dhatus (body tissues), and preserving Ojas (vital essence). Contemporary biomedical science also recognizes nutrition as a key determinant of longevity and quality of life. This review explores the physiological changes associated with ageing from both Ayurvedic and modern perspectives and highlights the significance of dietary interventions in delaying age-related degeneration and promoting healthy longevity.

KEYWORDS: Ageing, Jara, Nutrition, Rasayana, Agni, Dhatu, Ojas, Healthy Ageing, Ayurveda.

INTRODUCTION

Ageing is a universal biological phenomenon characterized by progressive deterioration of physiological functions leading to increased vulnerability to disease and death. According to the World Health Organization (WHO), the proportion of the global population aged 60 years and above is rapidly increasing, making healthy ageing a major public health priority.

Ayurveda, the ancient Indian system of medicine, offers a comprehensive understanding of

ageing through the concepts of Jara, Vata predominance, Dhatu Kshaya, and Ojas depletion. Unlike modern medicine, which primarily focuses on disease management, Ayurveda emphasizes prevention, rejuvenation, and maintenance of physiological balance through proper Ahara (diet), Vihara (lifestyle), and Rasayana therapy.

Concept of Ageing in Ayurveda

Ayurveda recognizes ageing as a natural process

"Jara Swabhavo Namu Bhutanam"

meaning that ageing is an inherent characteristic of all living beings.

Definition of Jara

Charaka describes Jara as

"Vayah Krite Sharirasya Dhatu Indriya Bala Kshayah"

which refers to the decline of body tissues, sensory functions, and physical strength with advancing age.

Classification of Age

According to Ayurvedic classics

Stage	Age
Bala (Childhood)	Birth–16 years
Madhya (Middle age)	16–60 years
Vriddha (Old age)	Above 60 years

Old age is characterized by

Predominance of Vata Dosha

Degeneration of Dhatus

Reduced Agni

Decline in sensory and cognitive functions

Reduced immunity and vitality

Physiological Changes During Ageing

Ayurvedic Perspective

1. Vata Prakopa

Ageing is considered a Vata-dominant stage of life. Increased Vata causes:

Dryness (Rukshata)

Degeneration
Tissue depletion
Joint stiffness
Neuromuscular weakness

2. Agnimandya

Digestive and metabolic fire gradually declines leading to:
Poor digestion
Reduced nutrient absorption
Malnutrition
Accumulation of Ama (metabolic toxins)

3. Dhatu Kshaya

Progressive depletion of body tissues occurs:
Dhatu Age-related Changes
Rasa Reduced nourishment
Rakta Anemia tendency
Mamsa Muscle loss
Meda Altered fat distribution
Asthi Osteoporosis
Majja Cognitive decline
Shukra Reduced reproductive vitality

4. Ojas Depletion

Ojas represents immunity, vitality, and resilience. Its depletion results in:
Fatigue
Increased susceptibility to diseases
Delayed healing
Mental instability

Modern Physiological Understanding of Ageing

Modern science attributes ageing to multiple interconnected mechanisms:

Cellular Senescence

Cells gradually lose their ability to divide and repair tissues.

Oxidative Stress

Free radicals damage: Damage of DNA, Proteins, Cell membrane leading to accelerated ageing.

Mitochondrial Dysfunction

Reduced cellular energy production contributes to:

Muscle weakness, Fatigue, Organ dysfunction, Chronic Inflammation

"*Inflammaging*" is characterized by persistent low-grade inflammation associated with:

Cardiovascular diseases, Diabetes, Neurodegenerative disorders, Sarcopenia

Age-related loss of muscle mass and strength significantly affects mobility and independence.

Importance of Nutrition in Ageing

Nutrition is one of the most modifiable determinants of healthy ageing.

Proper nutrition: Maintains physiological functions, Preserves muscle mass, Enhances immunity, Reduces chronic disease risk, Improves quality of life

Ayurveda considers food as the foremost pillar of health

"Ahara Sambhavam Vastu"

The body is sustained by food.

Ayurvedic Principles of Nutrition for Healthy Ageing

1. Maintenance of Agni

The primary goal is preservation of digestive efficiency.

Recommended measures are to use Warm freshly prepared meals, Use of digestive spices, Avoidance of heavy and processed foods

Useful spices are Ginger, Cumin, Black pepper, Turmeric

2. Vata-Pacifying Diet

Since ageing is Vata dominant, diet should be Warm, Soft, Unctuous, Easily digestible

Recommended foods are Milk, Ghee, Mung dal, Rice, Seasonal fruits, Cooked vegetables

Avoid

Excess fasting, Dry foods, Cold foods, Excessive raw foods

3. Rasayana Nutrition

Rasayana therapy promotes longevity and tissue regeneration.

Important Rasayana foods are

Amla (*Emblica officinalis*), Ghee, Milk, Honey, Dates, Almonds

Important Rasayana herbs are

Ashwagandha, Guduchi, Shatavari, Amalaki, Brahmi etc

These help improve immunity, cognition, and vitality.

Modern Nutritional Recommendations for Elderly Individuals

Protein

Older adults require higher protein intake: 1.0–1.2 g/kg/day. Proteins support muscle preservation and prevent sarcopenia

Sources: Pulses, Dairy products, Soy products, Nuts,

Healthy Fats

Omega-3 fatty acids support

Brain function, Cardiovascular health, Anti-inflammatory activity

Sources: Flaxseeds, Walnuts, Fatty fish

Micronutrients

Calcium and Vitamin D

Prevent osteoporosis and fractures.

Vitamin B12

Supports neurological function.

Zinc

Improves immunity and wound healing.

Antioxidants

Vitamins A, C, and E help reduce oxidative damage.

Integrative Nutritional Approach for Healthy Ageing

An ideal geriatric diet should combine Ayurvedic wisdom and modern nutritional science.

Daily Dietary Recommendations are Warm water in the morning, Freshly cooked meals, Adequate protein intake, Seasonal fruits and vegetables, Moderate use of ghee, Regular hydration, Limited sugar and processed foods Lifestyle Support, Regular exercise, Yoga, Pranayama, Meditation Adequate sleep, adequate social engagement.

CONCLUSION

Ageing is an inevitable physiological process involving progressive decline in tissue function, metabolism, and resilience. Ayurveda views ageing as a Vata-dominant stage characterized by Agnimandya, Dhatu Kshaya, and Ojas depletion. Nutrition plays a pivotal role in mitigating these changes and promoting healthy longevity. A diet that supports Agni, nourishes Dhatus, and enhances Ojas, combined with Rasayana interventions and healthy lifestyle practices, can significantly improve the quality of life in older adults. Integrating Ayurvedic nutritional principles with contemporary evidence-based recommendations offers a holistic and sustainable strategy for healthy ageing.

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