

GERIATRICS

Geriatrics or **geriatric medicine** is a subspecialty of internal medicine and family medicine that focuses on health care of elderly people.

Geriatric nursing



Geriatric nursing: - Nursing care of the aged patient given in the home, the hospital, or special institutions such as nursing homes, psychiatric institutions, etc.

GERONTOLOGY

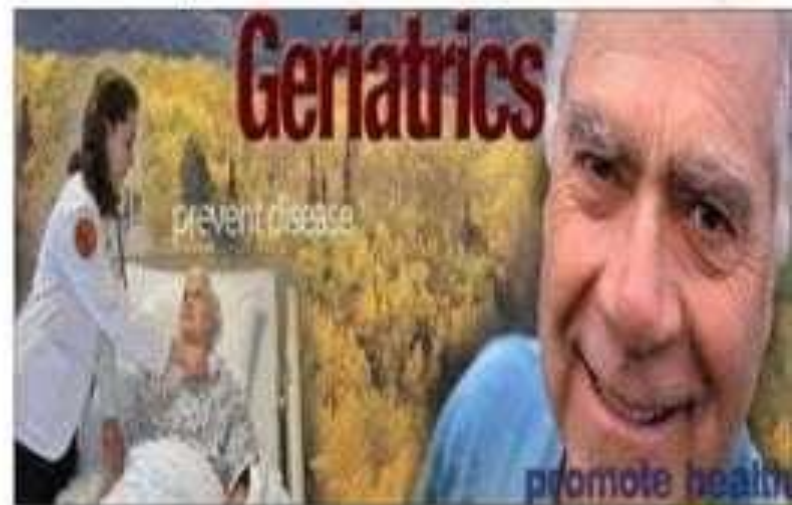
Gerontology

The scientific study of the biological, psychological, and sociological phenomena associated with old age and aging.



The objectives of geriatric care

- Maintenance of health function
- Detection of diseases at early stages
- Prevention of deterioration of any existing problem





GENERAL PRINCIPLES OF GERIATRIC CARE

1. Consider individuality. Consult his preferences.
2. Be patient, kind and sympathetic. Communicate effectively, demonstrate respect.
3. Encourage independence and encourage him to make his choices and decisions.
4. Assist elderly to achieve emotional stability.
5. Stimulate mental acuity and sensory input and physical activity to uplift their self esteem, self concept and confidence.



GENERAL PRINCIPLES OF GERIATRIC CARE

6. Make elderly stay in home interesting and lively
7. Provide diversion /occupational therapy.
8. Maintain privacy
9. Handle them gently.
10. Make them comfortable by providing comfortable bed, bed linen etc. keep bed dry, smooth and unwrinkled.



GENERAL PRINCIPLES OF GERIATRIC CARE

11. Encourage them to maintain body hygiene, thus regulate body temperature.
12. Assist them to take care of visual, auditory and dental aid.
13. Protect from injuries, falls and accidents etc.
14. Ensure adequate nutrition.
15. Facilitate elimination. Encourage them to maintain external genitalia hygiene.



GENERAL PRINCIPLES OF GERIATRIC CARE

16. Encourage them to do active range of motion exercises.

Maintain body alignment and posture. Encourage mobility.

17. Help elderly to establish good sleep patterns.

18 . Caution elderly about the use of drugs.

19 . Have them physically examined annually and whenever needed.

20. Observe any psychophysical changes which alter their body image and behaviour.

Principles guiding the Gerontological Nursing Practice



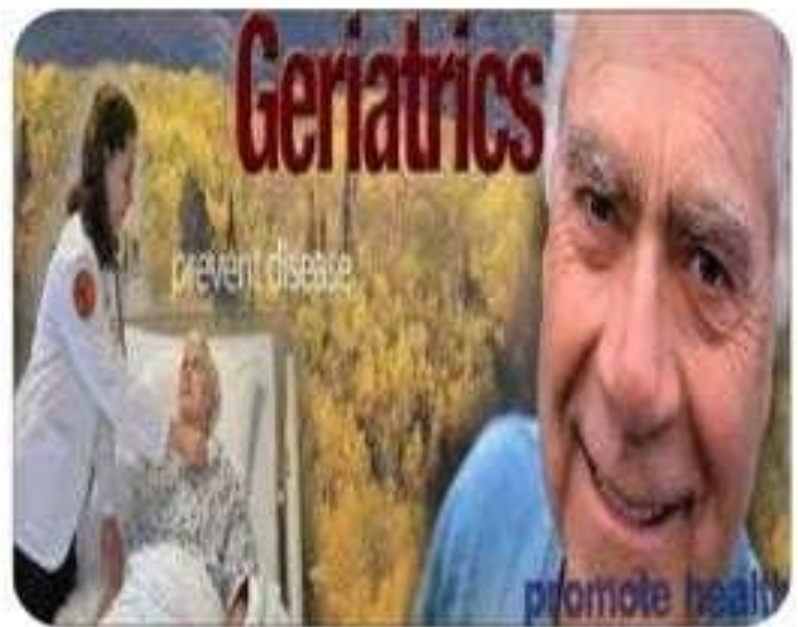
- Aging is a natural process common to all living organisms.
- Various factors influence the aging process.
- Unique data and knowledge are used in applying the nursing process to older population.
- Older adults share similar self-care and human needs with all other human beings.
- Gerontological nursing strives to help older adults achieve wholeness by reaching optimum levels of physical, psychological, social and spiritual health.

Factors affecting aging

- Hereditary factors
- Environmental factors
 - ❖ Abiotic factors
 - ❖ Biotic factors
 - ❖ Socioeconomic factors



AGEING PROCESS AND CHANGES

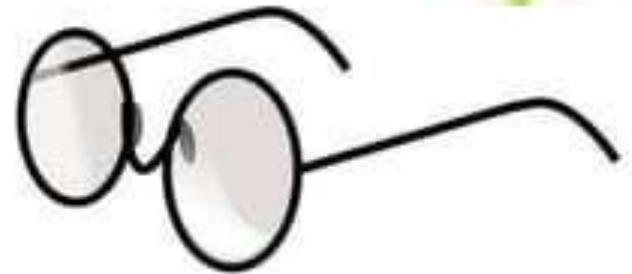


SENSORY SYSTEM



VISION

- Decreased visual acuity
- Decreased peripheral vision
- Decreased dark adaptation
- Elevated minimal threshold of light perception
- Presbyopia

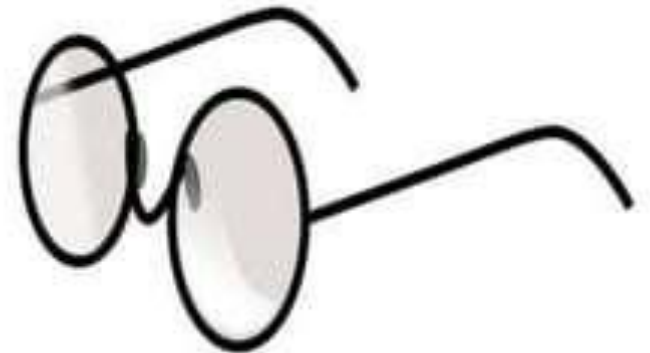


SENSORY SYSTEM



VISION

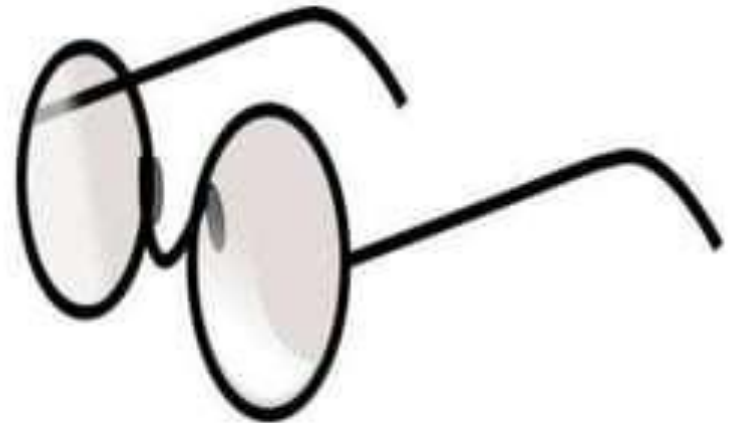
- Decreased colour discrimination
- Increased sensitivity to glare
- Decreased depth sensation
- Decreased tears



VISION

ASSESSMENT FINDINGS

- Arcus senilis
- Cataracts
- Macular degeneration
- Glaucoma
- Smaller pupil size
- Dry, red eyes
- Vitreous floaters



HEARING

- Hearing loss-
- Usual progression from high tone or high frequency loss to a general loss of both high and low tones.
- Consonants are not heard well.
- Hearing loss increases with age and greater in men.
- Increase in the sound threshold.
- Decreased speech discrimination.
- Cerumen impaction



HEARING

Assessment findings

- Increased volume of patients own voice.
- Turning of head toward speaker.
- Request of a speaker to repeat.
- Inappropriate answers
- The person may withdraw, demonstrate short span and become frustrated, angry and depressed.
- Lack of response to a loud noise.



SMELL

Characteristics

- Changes in smell due to nasal sinus disease preventing odours from reaching smell receptors
- Decreased discrimination of odours.
- Decreased more in men than women.

Assessment findings

- Inability to notice unpleasant odours
- Decreased appetite.



TASTE



Characteristics

- Taste buds decrease with age especially in men.
- Taste buds lost from the front to the back.

Assessment findings

- Complaints of food has no taste.
- Excessive use of sugar and salt.
- Inability to identify the foods.
- Decrease in appetite and weight loss.
- Decrease pleasure from food.



NERVOUS SYSTEM



Characteristics

- Gradual loss in the number of neurons with age and no change in the neurotransmitter level.
- Brain tissue atrophy
- Decreased muscle tone, motor speed, and nerve conduction velocity.
- Decrease in gait speed, decreased step length, stride length, and arm swing.

NERVOUS SYSTEM



Assessment findings

- Decreased position and vibration sense
- Diminished reflexes, possible absent ankle jerks.
- Complaints of fall and impaired balance.
- Wide based gait with decreased arm swing.



CARDIO VASCULAR SYSTEM



Characteristics

- Valves of the heart become thick and rigid as a result of sclerosis and fibrosis.
- Blood vessels become thick and rigid, resulting in elevated blood pressure.
- Maximum heart rate and aerobic capacity decreases with age.
- Decline in maximum oxygen consumption.
- Decreased baroreceptor sensitivity.

CARDIO VASCULAR SYSTEM

Assessment findings

- Normal blood pressure or below,
- Pre hypertension
- Stage I hypertension
- Stage II hypertension
- Prolonged tachycardia may occur following the stress.



RESPIRATORY SYSTEM



Characteristics

- Weakening of intercostal respiratory muscles and the elastic recoil of the chest wall diminishes.
- Residual volume and functional residual capacity increase.
- Partial pressure of oxygen decreases
- Decrease in mucus transport or ciliary system, therefore reduced clearance of mucus and foreign bodies.

RESPIRATORY SYSTEM

Assessment findings

- Prolonged cough, inability to raise secretions.
- Increased frequency of respiratory infections.



GENITO URINARY SYSTEM



Female

- Thinning of the vaginal wall,
- Narrowing of vagina in size and loss of elasticity
- Decreased vaginal secretions resulting in vaginal dryness, itching and decreased acidity
- Involution of the uterus and ovaries
- Decreased pubococcygeal muscle tone resulting in relaxed vagina and perineum,

GENITO URINARY SYSTEM



Males

- Penis and testes decrease in size, and levels of androgens diminishes
- Erectile dysfunction

GENITO URINARY SYSTEM



Assessment findings

- Vaginal dryness, painful intercourse.
- Atrophic vaginitis
- Urinary incontinence, BPH and prostatic cancer

MUSCULOSKELETAL SYSTEM

Characteristics

- Declining muscle mass
- Decreased bone density, more in women
- Decreased thickness and resiliency of cartilage
- Bone resorption exceeds bone formation resulting in decline of bone density.
- Injuries to the cartilage



MUSCULOSKELETAL SYSTEM

- With age, the receptors in the joints and muscles lose their ability to function, so there is a change in balance.
- Walking with shorter step length, less leg lift, a wider base, and tendency to lean forward
- With age less ability to stop a fall from occurring

MUSCULO SKELETAL



Assessment findings

- Muscle atrophy
- Increased incidence of fractures.
- Joint stiffness.
- Decreased bone density
- Alteration in posture, ability to transfer, and gait
- Complaint of dizziness.

INTEGUMENTARY SYSTEM



Characteristics

- Thinning of three layers of skin and decreased ability to function as a barrier.
- Fewer melanocyte and decrease tanning.
- Less efficient thermoregulation because fewer sweat glands.
- Drier skin because of decreased number of sebaceous glands.

INTEGUMENTARY SYSTEM

- Reduced sensory output and decreased elasticity.
- More prone to heat stress
- Hypothermia



ENDOCRINE SYSTEM



Characteristics

- Decreased secretion of trophic hormones from pituitary gland.
- Blunted growth hormone release during the times of stress.
- Elevated vasopressin and exaggerated response to osmotic challenge.
- Elevated levels of FSH and LH because of reduced end organ response.
- Normal insulin secretion at rest and an age related decrease in secretion in response to glucose overload.

HEMATOPOETIC SYSTEM



Characteristics

- Bone marrow cellularity is decreased during older life
- Declining marrow activity.



IMMUNOLOGIC SYSTEM



Characteristics

- The function of T lymphocyte, such as cell mediated immunity, declines with age due to involution and atrophy of thymus gland.
- Decreased T cell helper activity, increased T cell suppressor activity.
- Declined B cell function as a result of T cell changes.



Assessment findings

- More frequent infections.
- Increased incidence of many types of cancers.

THEORIES OF AGEING



Disengagement Theory

- Refers to an inevitable process in which many of the relationships between a person and other members of society are severed.



Activity Theory of Aging



Life satisfaction of **senior citizens** depends on their level of physical and social activity.

ACTIVITY THEORY

- Activity theory emphasizes the importance of ongoing social activity.
- This theory suggests that a person's self-concept is related to the roles held by that person

Erikson's theory

Stages of Psychosocial Development



Proposed by Erik Erikson

EXCHANGE THEORY



The exchange theory simply states that people should end the relationship with another person if nothing can be gained or exchanged from that person.

Jung's theory

- As individuals age, they go through a re-evaluation stage at midlife then they begin to question whether the decisions and the choices they have made were the right choices for them

"The privilege of a lifetime is to become who you really are." ~Carl Jung

CONTINUITY THEORY

- In later life, adults tend to use continuity as an adaptive strategy to deal with changes that occur during normal aging.

Continuity Theory of Aging



Older adults tend to maintain the same relationships and activities as they did when they were younger.

4. Social Exchange theory:

- **Postulates that social interaction between individuals and groups continues as long as everyone profits from the interaction.**



Error & Fidelity Theory

- Accumulation of errors in the synthesis of cellular DNA and RNA, the basic building blocks of the cell.



Wear and Tear Theory

- ◆ Theory compares the human body to a machine that simply wears out as a result of constant use.

Wear and Tear Theory of Aging



The human body is subject to degradation due to the external environment.

CROSS LINK THEORY

- It explains aging in terms of the accumulation of errors by cross-linking, or the stiffening of proteins in the cell. Proteins link with glucose and other sugars in the presence of oxygen and become stiff and thick.

FREE RADICAL THEORY

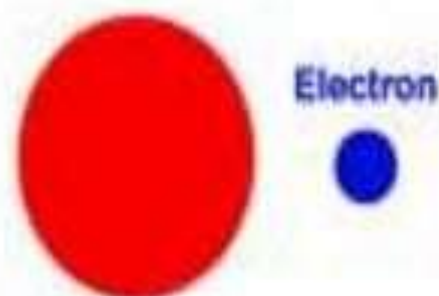
- Free radicals are natural by products of cellular activity and are always present to some extent. With ageing, the damage caused by free radicals occurs faster than the cells can repair themselves, and cell death occurs.

FREE RADICAL DAMAGE

A normal molecule has an even number of "paired" electrons



A free radical molecule has an odd number - An "unpaired" electron



SOMATIC MUTATION THEORY

- **Similar to error theory.**

Cells exposed to x-ray radiation or chemicals



Cell by cell alteration in DNA occurs



Increase the incidence of chromosomal abnormalities



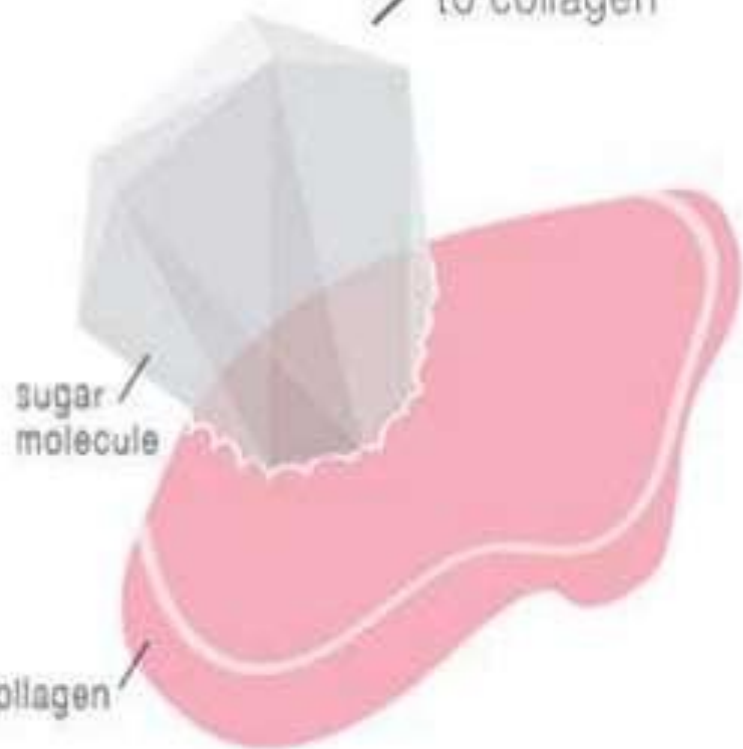
Occurs more at youth and its deleterious effect are seen in later life

Glycation Theory

- Glycation is the nonenzymic reaction between glucose & tissue protein.
- The negative effects of this process on proteins may be a major contributor to age changes.

GLYCATION

A sugar molecule binds
to collagen



This causes the collagen to become brittle and less elastic, which causes the skin to age.



Programmed Cellular Aging *Theory*

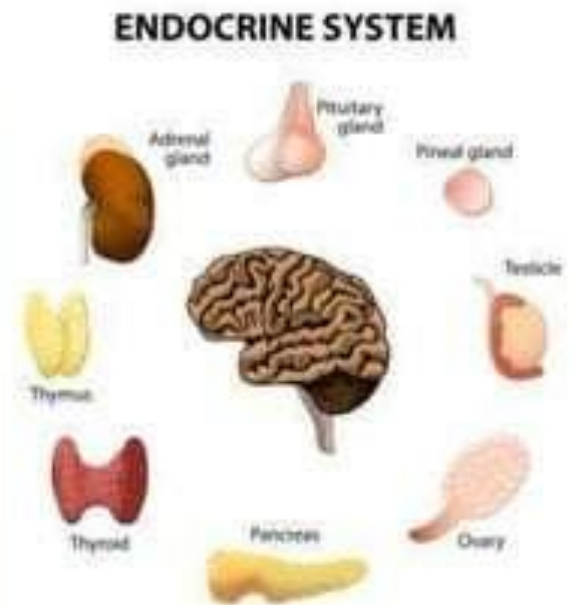
- Suggests that aging may be a result of an impairment of the cell in translating necessary RNAs as a result of increased turnoffs of DNA.

AUTOIMMUNE THEORY

- As the body ages the immune system is less able to deal with foreign organisms & increasingly make mistakes by identifying ones own tissues as foreign.

Neuroendocrine Control Theory

The age related changes in response to hormones may be the result of changes in the receptors for hormones rather than changes in the activity of the endocrine hormones themselves.



Psychological Problems in older populations

- Depression
- Dementia
- Delirium
- Alcohol and substance abuse

GERIATRIC HEALTH ASSESSMENT





HEALTH ASSESSMENT

- THE HEALTH HISTORY
- PHYSICAL ASSESSMENT
- COMPREHENSIVE ASSESSMENT
- FUNCTIONAL ASSESSMENT
- MENTAL STATUS ASSESSMENT
- ASSESSMENT OF SOCIAL SUPPORTS
- ENVIRONMENTAL AND SAFETY ASSESSMENT
- INTEGRATED ASSESSMENT



COMPREHENSIVE ASSESSMENT

- **F- Fluids**
- **A-Aeration**
- **N- Nutrition**
- **C- Communication**
- **A-Activity**
- **P- Pain**
- **E- Elimination**
- **S- Socialization and Social skills**



FUNCTIONAL ASSESSMENT

MENTAL STATUS ASSESSMENT

COGNITIVE MEASURES

- **Mini mental status examination**
- **Clock drawing test**
- **The Mini – Cog**

MOOD MEASURES

Geriatric depression scale

INTEGRATED ASSESSMENT

- **Social resources**
- **Economic resources**
- **Mental health**
- **Physical health**
- **Activities of daily living**



**BENEFITS GIVEN TO OLD AGE
PEOPLE IN INDIA**

Indira Gandhi National Old Age Pension Scheme

- **Objective** - To disburse pension to the destitute old age persons.
- **Assistance provided** 400/-per month
- **Beneficiary**
- Beyond 65 years of age, belonging to BPL. And 60 years above for persons affected by leprosy, blindness, insanity, paralysis and loss of limb.





Helpage India

- It is a secular, nonprofit, largest voluntary organization which was set up in 1978.

National Policy On Older Persons


- Formed in January 1999 under Ministry of social justice and empowerment.
- The goal of the national policy is the well being of older persons..



- **Annapurna scheme**

Free food grains upto 10 kg per month are provided to destitute older persons above 65 years of age who are eligible for pension but not receiving it.




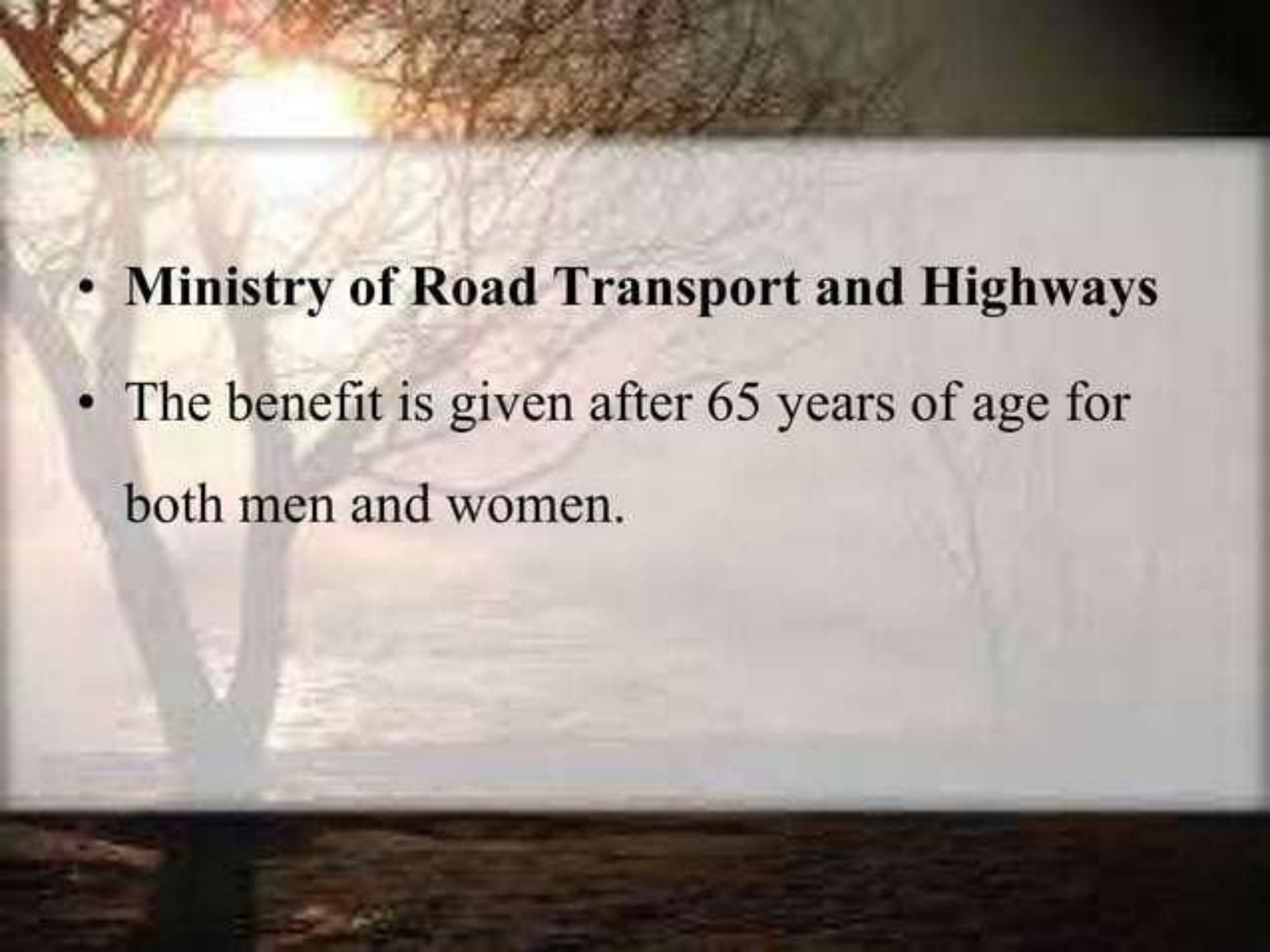
- 
- **Ministry of Health and Family Welfare** provides separate queues to senior citizens in the hospitals.


Ministry of Railways

- Concessions to senior citizens are hiked from 30 to 40 percent for men above 60 years and for women above 58 years for booking and cancellation of railway tickets.

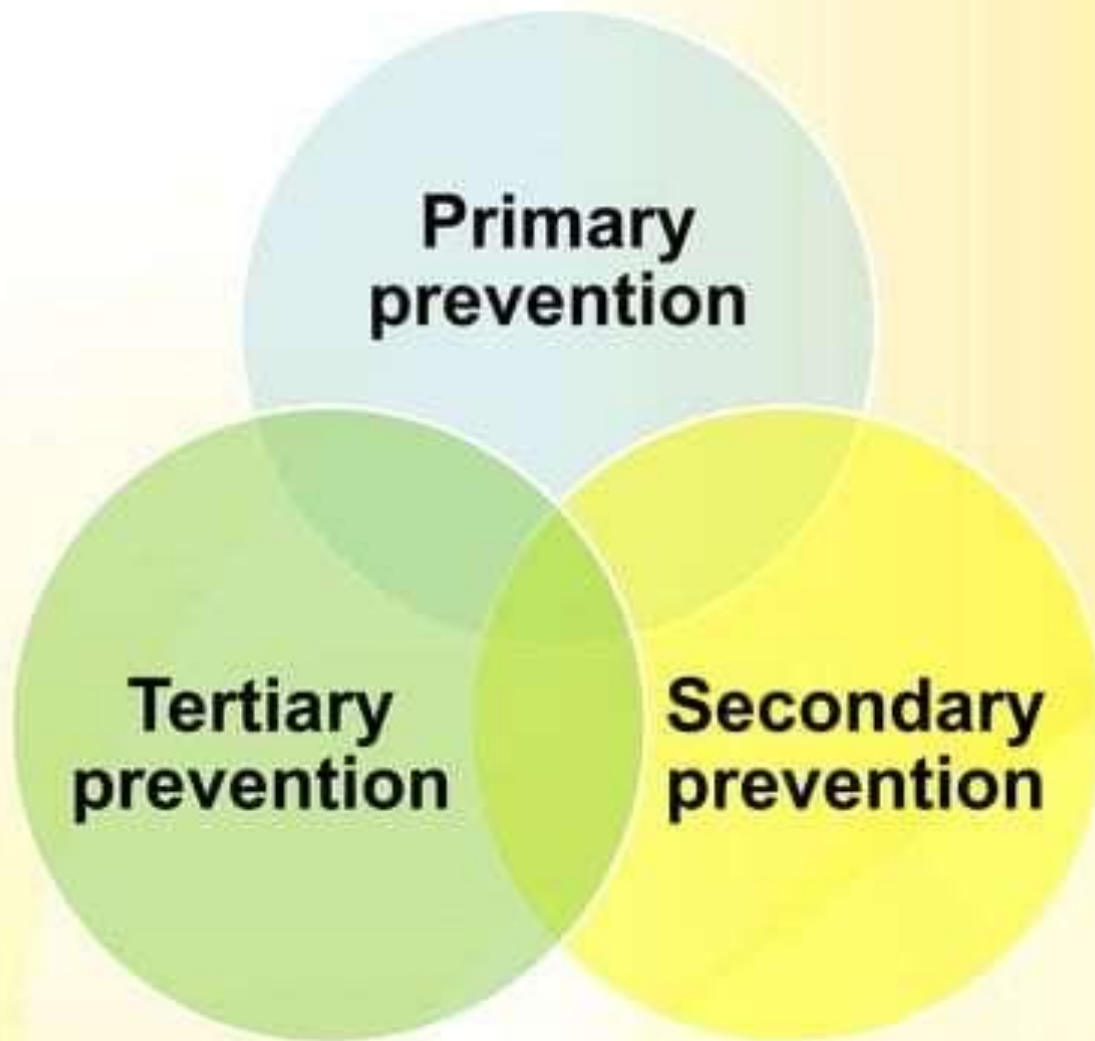


- 
- **Ministry of Civil Aviation**
 - Fifty percent discount on basic fare for all domestic flights in Economy class for above 65 years of age.

- 
- **Ministry of Road Transport and Highways**
 - The benefit is given after 65 years of age for both men and women.

- 
- **Department of post office** A new scheme called Senior Citizen Saving scheme has been notified.

CARE OF AGED



Primary prevention

- Control of BP, weight and diabetes
- Avoid smoking and alcohol
- Regular, moderate physical exercise
- Avoidance of drug abuse and self medication
- Well balanced diet with plenty of vegetables and fruits, low in saturated fats, refined sugars and fast foods.

Primary prevention

- Cultivation of interest in reading, listening to music and other recreational activities.
- Avoid plenty of fluid intake
- Periodical screening for blood pressure, vision and hearing
- Plan for future financial, housing security.
- Yoga exercises and meditation
- Immunization against influenza, pneumonia, tetanus, hepatitis B

Secondary prevention

- Educate about danger signals of disease.
- Educate woman about BSE
- Pap smear examination for menopause women.

Tertiary prevention

- Cataract surgery, provision of spectacles
- Hearing aids, artificial limbs, prosthesis.
- Physiotherapy, vocational therapy, psychological and social therapy depending upon the functional capacities.
- Deaddiction counseling
- Establishment of old age homes and old age clubs
- Establishment of geriatric clinics

RESPONSIBILITIES OF COMMUNITY HEALTH NURSE

- Health assessment
- Arranging and promoting nutrition
- Promoting activity and exercise
- Preventive care of elderly
- Providing psychological support



FUNCTIONS OF A GERONTOLOGICAL NURSE

- **G** (Guiding)
- **E** (Eliminating)
- **R** (Respecting)
- **O** (Observing)
- **N** (Noticing)
- **T** (Teaching)
- **O** (Opening Channels)
- **L** (Listening)



FUNCTIONS OF A GERONTOLOGICAL NURSE

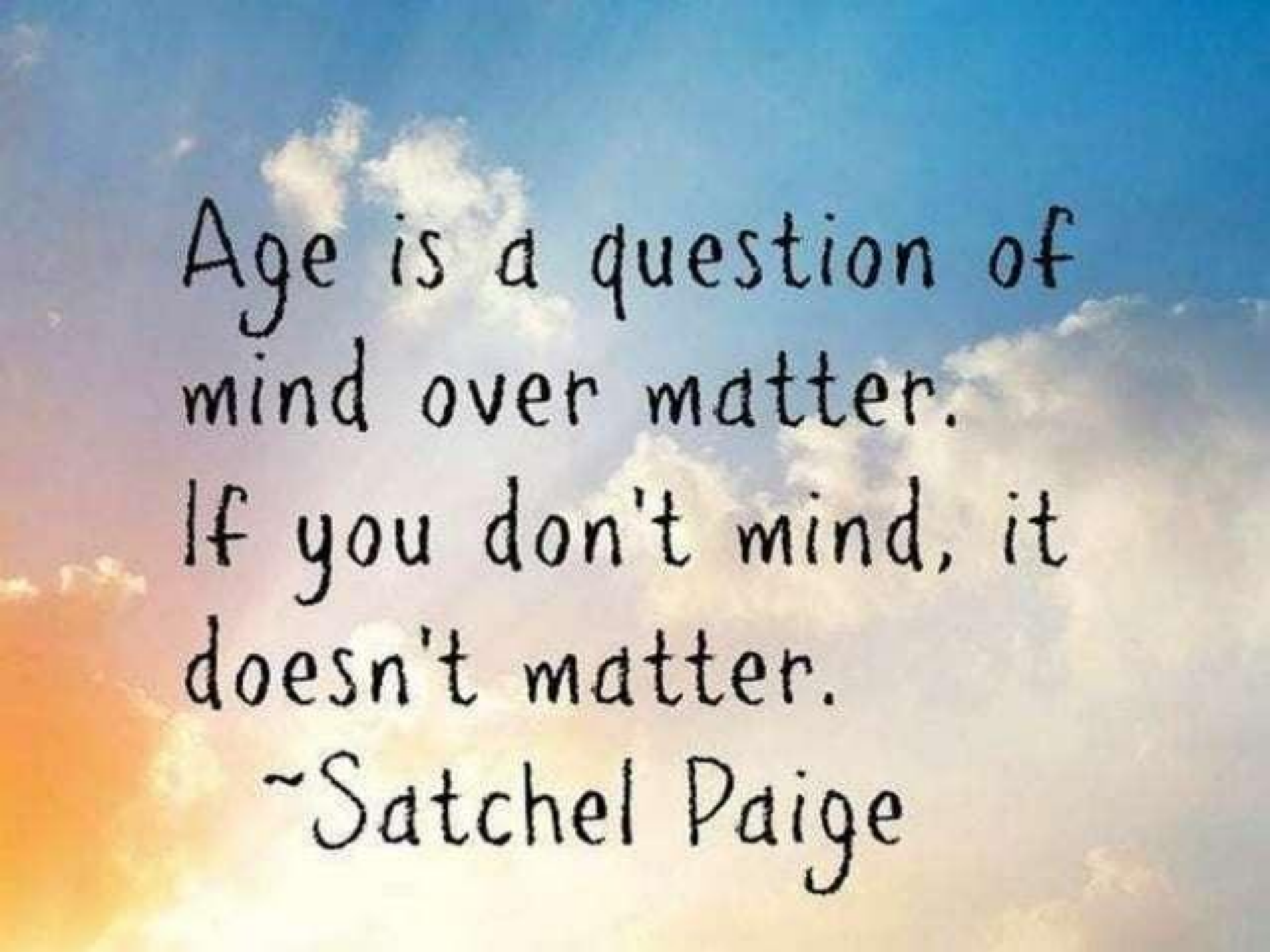
- **O**(Offering)
- **G**(Generating)
- **I**(Implementing)
- **C**(Co ordinating)
- **A**(Assessing)
- **L**(Linking)



FUNCTIONS OF A GERONTOLOGICAL NURSE

- **N**(Nurturing)
- **U**(Understanding)
- **R**(Recognizing)
- **S**(Supporting)
- **E**(Education and encouraging)





Age is a question of
mind over matter.

If you don't mind, it
doesn't matter.

~Satchel Paige



THANK YOU