

Elderly Care : Concept and Principles



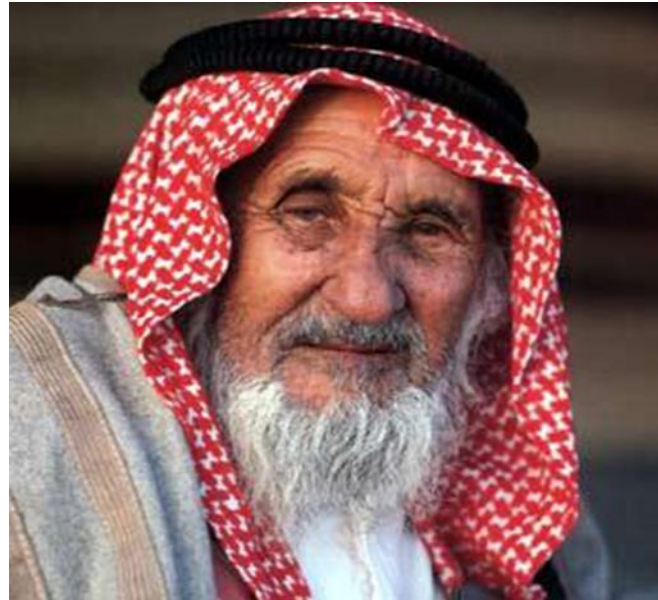
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Who is old?



The typical “geriatric” patient

Elderly:

- 60 & + years of age (UN)
- 65 & + developed countries
- 50 & + African countries,
birth certificates problem)

- chronic disease
- multiple disease
(co-morbidity)
- multiple drugs
(poly-pharmacy)
- social isolation
and poverty
- ↓ physiological
function



LOSS OF RESERVE

What's Aging ?

Why is it a concern?



Aging – definition

- **Aging** is a physiological process is associated with complex changes in all organs.
- The accumulation of biological changes over time leading to decreased biological functioning and impaired ability to adapt to stressors.

Who is the ?

Geriatricians

- Diagnose, treat & manage diseases & conditions
- Special approach for aging patients and

General principles of geriatric care

- Multi-factorial disorders are best managed by multi-factorial interventions
- Atypical presentations need to be considered
- Not abnormalities require evaluation and treatment
- Complex medication regimens, adherence, problems, and poly-pharmacy are common challenges

Principles of Geriatrics

1. **Aging is not a disease.**
 - Aging occurs at different rates
 - Between individuals
 - Within individuals in different organ systems

1. **Geriatric conditions are chronic, multiple, multifactorial**
2. **Reversible conditions are underdiagnosed and undertreated**
3. **Function and quality of life are important outcomes**
4. **Social support and patient preferences are critical aspects**

Principles of Geriatrics

5. Geriatrics is multidisciplinary issues
6. Cognitive and affective disorders prevalent and undiagnosed at early stages
7. Iatrogenic disease common and often preventable
8. Care is provided in multiple settings
9. Ethical and end of life issues guide practice

Why Elderly are special group?

Normal Aging vs. Disease

- Normal aging

- “Crow’s feet”
- Presbycusis
- Seborrheic keratoses; loss of skin elasticity
- Benign forgetfulness
- Decreased blood vessel compliance
- Increase in % body fat

- Disease

- Macular degeneration
- Tympano-sclerosis
- Basal cell CA
- Dementia
- Athero-sclerosis
- Hypertension
- Obesity

Common Geriatric Syndromes

Dementia vs Delirium

Frailty: **Exhaustion, weight loss, weakness, poor physical activity, slow gait speed**

Sarcopenia: **SARC-F**

Falls & Gait and mobility impairment

Polypharmacy: **more than 5 meds**

Urinary Incontinence

Depression: **GDS**



Frailty



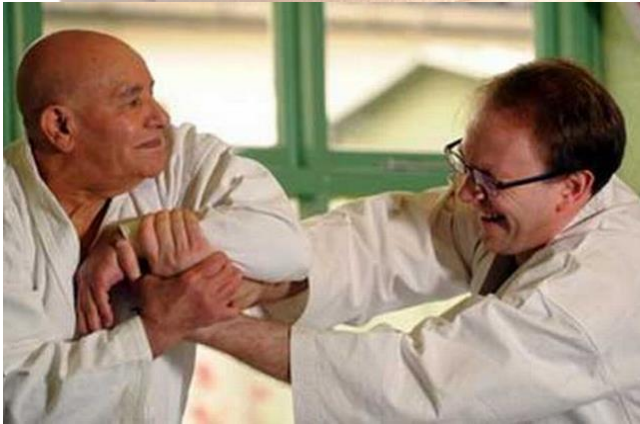
Dementia



Mental problems



Polypharmacy and iatrogenic



Agitation and anxiety: atypical presentation



Risk of falls



Driving issues



Executive function

Loss of motivation



Decline in quality of life: Saudi Elderly study

Senani SA & Al-saif A, J. Phys. Ther. Sci. 27: 1691–1695, 2015

- chronic disease,
- falls, (more with DM (58%) & HTN (29%))
- sedentary lifestyle (69%;more in joint / bone pain (90%))
- low physical activity (63%)
- sleep disturbances,
- Sensory impairments-depression risk and
- decreased self-sufficiency.

Assessment of old patient!

Comprehensive geriatric assessment (CGA)

Structured Approach

Multidimensional

- Functional ability
- Physical health (pharmacy)
- Cognition
- Mental health
- Socio-environmental

Multidisciplinary

- Physician
- Social worker
- Nutritionist
- Physical therapist
- Occupational therapist
- Family

Comprehensive geriatric assessment (CGA)

- Co-ordinated multidisciplinary assessment
- Identify medical, functional, social & psychological problems
- The formation of a plan of care including appropriate rehabilitation
- The ability to directly implement treatment recommendations by the multidisciplinary team
- Long term follow up
- Targeting (age & frailty)

Frailty

- Frail people suffer from three or more of five of following symptoms;
 - unintentional weight loss (10 lbs or + in last yr),
 - muscle loss,
 - a feeling of fatigue,
 - slow walking speed and
 - low levels of physical activity.
- vulnerable to significant functional decline
- Typically 75 years of age or older with multiple health conditions; acute and chronic; as well as functional disabilities.

Example of Assessment areas!

- ❑ Cognitive and affective disorders are prevalent and commonly undiagnosed at early stages: Delirium, multi-infarction dementia.
- ❑ Geriatric depression is often undiagnosed

Iatrogenic illnesses are common and many are preventable:

- ❑ Polypharmacy, adverse drug reactions. The use of five or more medications is considered polypharmacy .
- ❑ Complications of hospitalization, falls, immobility, and deconditioning.

EOL care

- Advance directives are critical for preventing some ethical dilemmas.**
- Palliative care and end-of-life care are essential good QOL.**

Supporting the Normal Changes

Changes in Vision:

- Decreased peripheral vision
- Decreased night vision
- Decreased capacity to distinguish color
- Reduced lubrication resulting in dry, itchy eyes

Changes in Hearing

- Sensitivity to loud noises
- Difficulty locating sound
- More prone to wax build up that can affect hearing

Changes in Smell and Taste

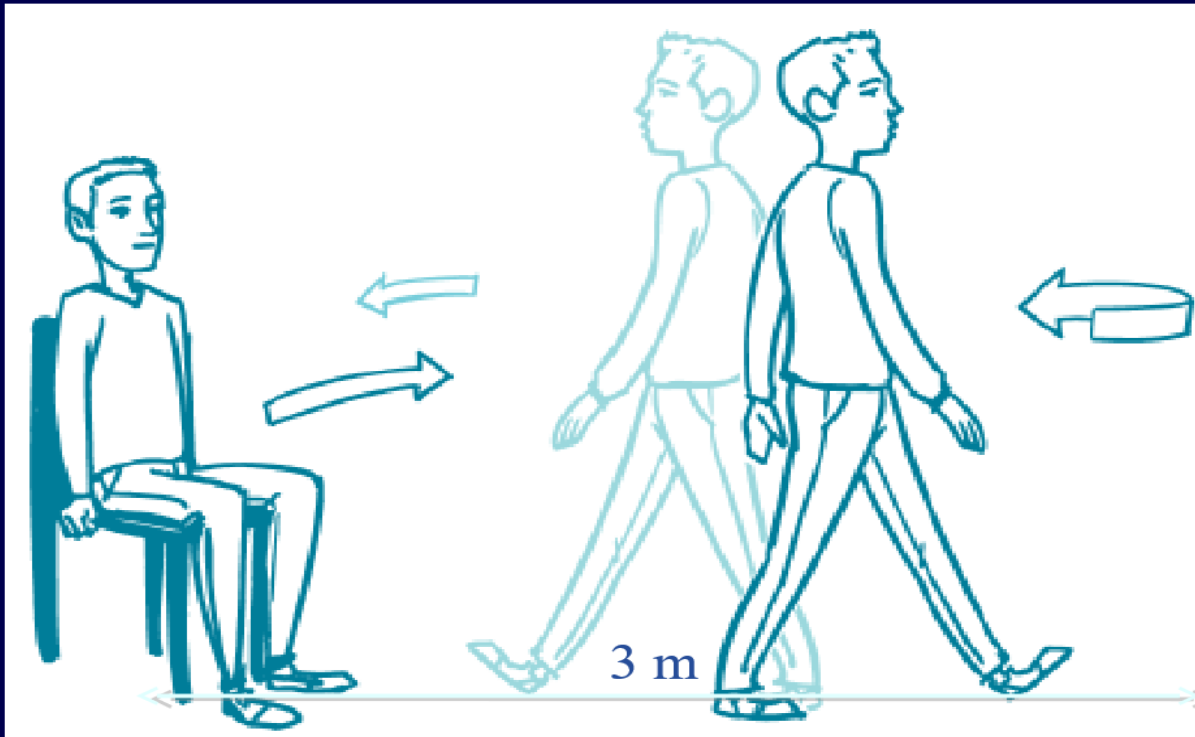
- Decreased taste buds and secretions
- Decreased sensitivity to smell

Changes in Skin

- Decrease in moisture and elasticity
- More fragile- tears easily
- Decrease in subcutaneous fat
- Decrease in sweat glands -less ability to adjust body temperature.
- Tactile sensation decreases- not as many nerves
- May bruise more easily

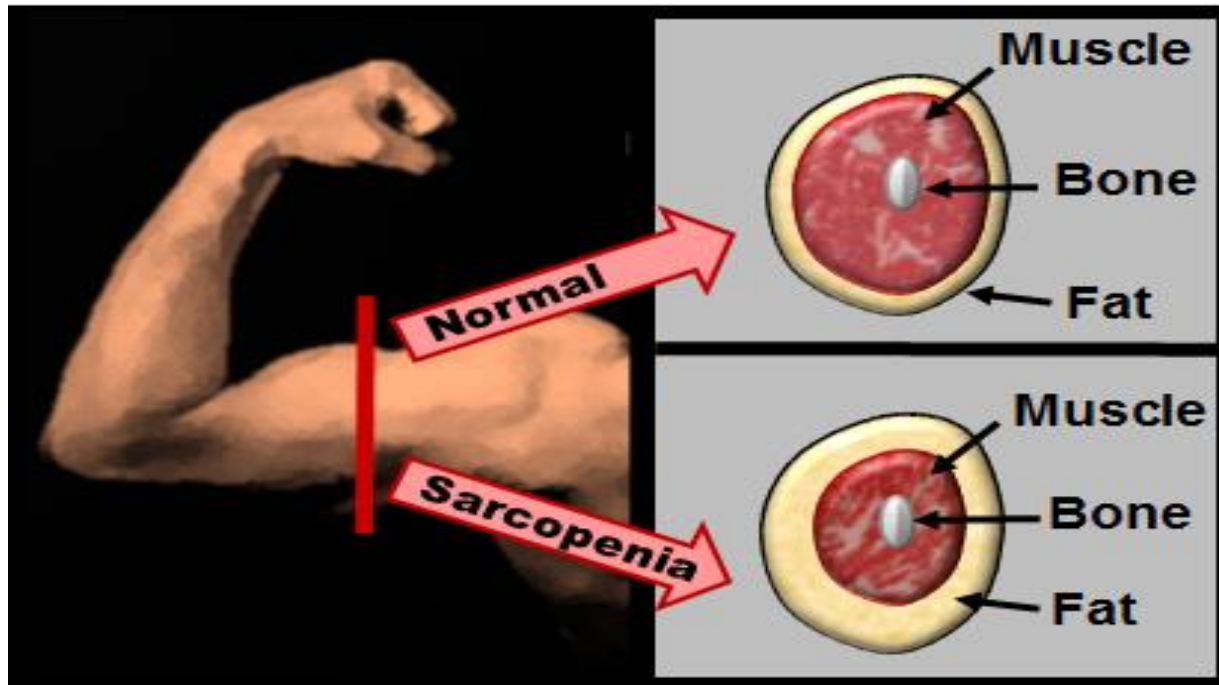
Physical Assessment

Timed Up and Go

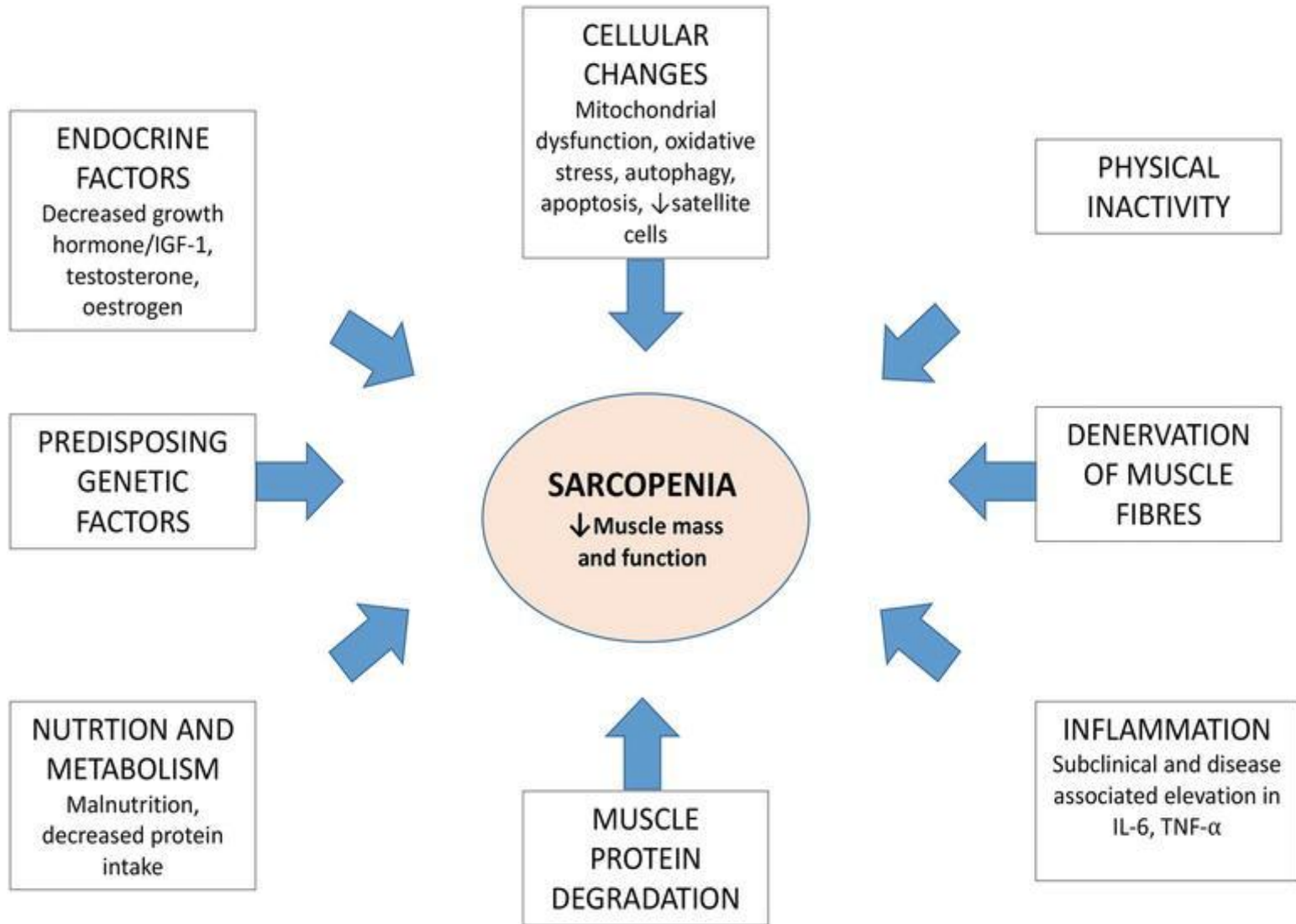


Community Dwelling Frail Older Adults > 14s associated with high fall risk

Sarcopenia



- SARC-F
- S: strength: difficulty of carrying 5kg (0, some hwo=1, a lot or unable=2)
- A: assistance in walking: crossing the room: 0,1,2
- R: raising from a chair: from chair or bed: 0,1,2
- C: climbing stair: 10 stairs: 0,1,2
- F: history of fall in the last yr: 0, (1-3=2), =>4=2)
- 4 points is pre-sarcopenic



Changes in Elimination

- Bladder atrophy- inability to hold bladder for long periods
- Constipation can become a concern because of slower metabolism
- Men can develop prostate problems causing frequent need to urinate
- Incontinence may occur because of lack of sphincter control

Changes in Bones and Joints

- Decreased height due to bone changes
- Bones more brittle – risk of fracture
- Changes of absorption of calcium
- Pain from previous falls or broken bones
- Joints less lubricated – may develop arthritis

Changes in Cognitive Ability

- Don't lose overall ability to learn new things but there are changes in the learning process
- Harder to memorize lists of names and words than for a younger person
- Sensory and motor changes as well as cognitive ability may affect ability to respond – hard to know which is which

Functional Ability

- Functional status **refers** to a person's ability to perform tasks that are required for living.
- Two key divisions of functional ability:
 - Activities of daily living (ADL)
 - Instrumental activities of daily living (IADL).

Functional Assessment

- **Activities of Daily Living (ADL):**
Feeding, dressing, ambulating, toileting, bathing, transfer, continence, grooming, communication
- **Instrumental ADL (IADL):** Cooking, cleaning, shopping, meal prep, telephone use, laundry, managing money, managing medications, ability to travel

Cognitive Assessment

Many tools •

MOCA •

MMSE •

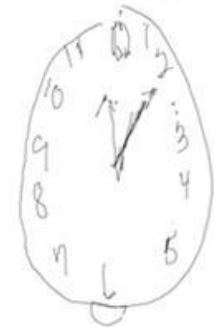
Clock Drawing test •



Healthy



Alzheimer's



Parkinson's

Healthy Aging !



Physical Exercise

Reduces Fall risk by 47%

Prevention of Fall

Ambulatory Adults >65 30% per year



Death

Injury

Fractures 10-15%

Hip 1-2%

Long Lie

Fear of Falling

Reduced Activity/Independence (25%)

Causes

Extrinsic

Environment

Intrinsic

Age

Gait/Balance Disorder

Sarcopenia

Vestibular

Orthostatic Hypotension

Special Senses -Vision/Hearing

Disease

Dementia

Depression

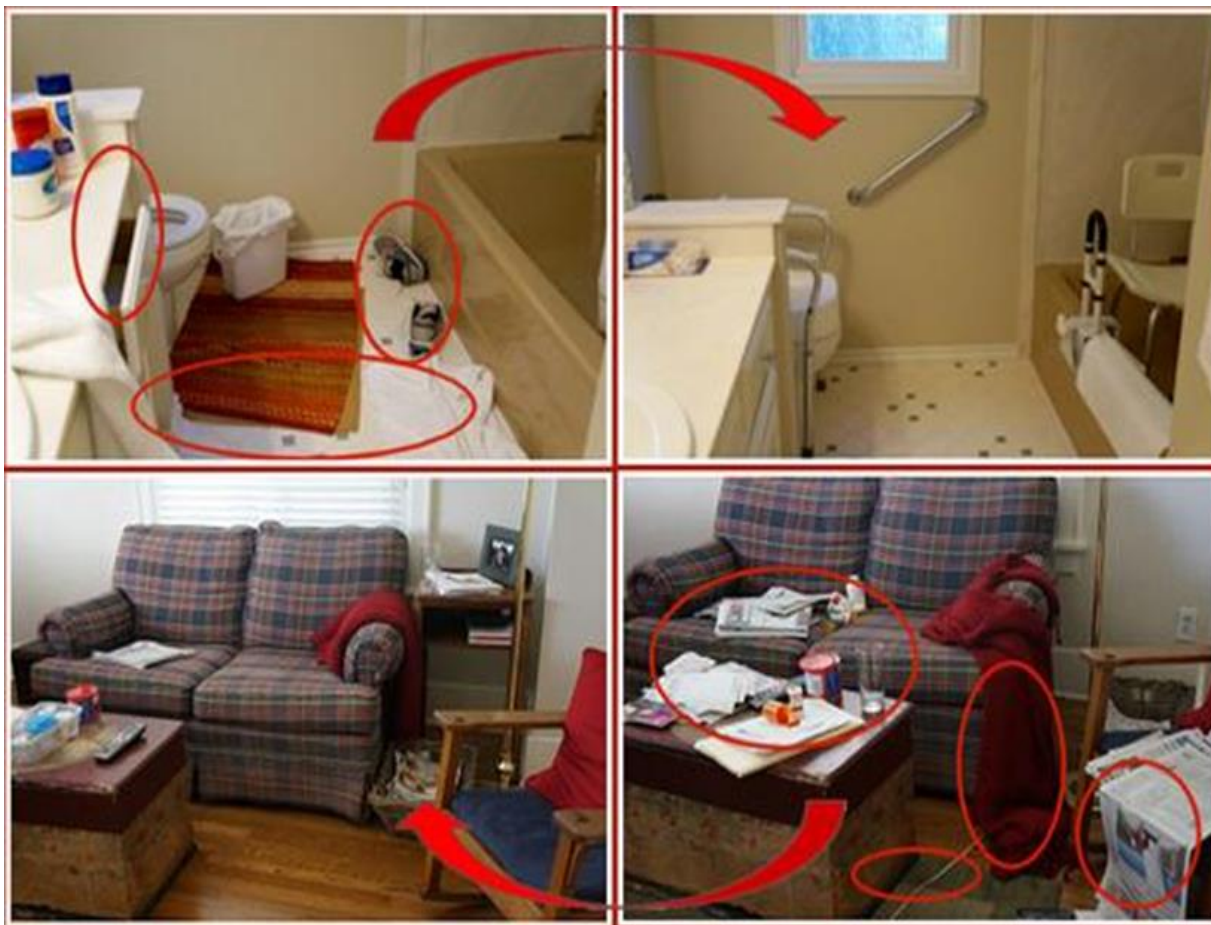
Drugs

Foot problems

Incontinence



Home Safety



Summary



Health Maintenance in the Elderly

- **Recommend primary and secondary disease prevention screening.**
- **Review all medications.**
- **Control all chronic medical problems.**
- **Optimize function**
- **Verify the presence of an adequate support system**
- **Discuss and document advanced directives**

Prevention and Promotion

- Smoking in middle age is a risk factor



- Exercise



- Calcium & vit.D supplements

- Vaccines (influenza)



- Treatment of HTN & management of risk factors



Any Questions?

Thank You