













## وَمَنْ نُعَمِّرُهُ نُنَكِّسُهُ فِي الْخَلْقِ أَفَلَا يَعْقِلُونَ

If I grant long life to any, I cause him to be reversed in nature: Will they not then understand?

আমি যাকে দীর্ঘ জীবন দান করি, তাকে সৃষ্টিগত পূর্বাবস্থায় ফিরিয়ে নেই। তবুও কি তারা বুঝে না? (সূরা ইয়াসিন- ৬৮) Old are asset, not liable They are frail, but reliable

> They are dependent Not much sufficient

Immune deficit Disease prevail
They are frail and sometimes fail

Old are labile

Not much mobile

Can't they cognise whether dull wise

Fail to cope up. Life get fade up

they are eccentric Need some logistic

Old are frail sometimes fail
Fall in essence they prevail.

# Falls in the Elderly



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### Aims and objectives

- Epidemiology
- Risk assessment
- Falls assessment
- Consequences of fall
- Prevention
- Patient education
- Conclusion



Falls in elderly is not the fall from the sky. It is a usual phenomenon.



## Why old man fall?



• Because they cannot maintain posture in critical situation.



### HOW POSTURE IS MAINTAINED



### How the posture is maintained

For the maintenance of posture

- 1. Nervous system
- 2. Musculoskeletal system
- 3. Vision &
- 4. Audition

### How the posture is maintained

Proprioception + vision + balance



Cerebral cortex

Extra pyramidal system

(for guidance)

Cerebellum

(for coordination)

Maintenance of muscle tone & strength

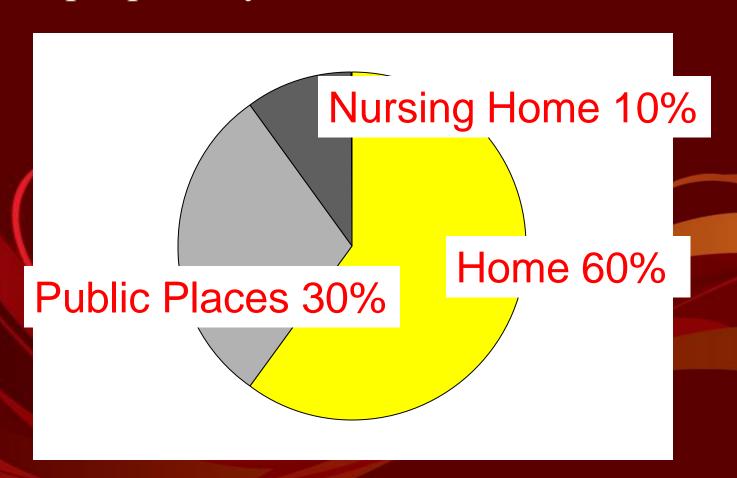


### **Epidemiology**

- ●The leading cause of mortality resulting from injury in people aged > 75 years
- ●400,000 older people attend A&E each year for falls
- 14000 die due to osteoporotic hip fractures each year
- ©1 in 3 people > 65 years fall at least once per year
- ©1 in 2 people >80 years fall at least once per year
- ●5% of these need hospitalisation (Royal society for the Prevention of Accidents)

### Where are people likely to fall?

For people 65 years old or older.....



### ABCDE of fall

- A Acute illness
- B Black out
- C Co factors (risk factors)
- D-Drugs
  - E Environmental

#### Acute illness

- falls are the atypical presentation of acute illness.
- A frail people falls easily when there is acute illness in which a young patient will not fall.
- Frail fall fracture

## Black out

• A proportion of older people who fall have in fact a syncopal episode.

• Syncope black out fall

### Co factors (Risk factors)



# What happens in old age? Hair is graying, Skin wrinkles

Hair is graying, Skin wrinkles Vessels rigid, Eye can't blinks

Lens is hazy, Brain is dizzy
Impaired cognition ,Muscle flabby

Gut is lazy, Movement slow Prostate hypertrophy, Low urine flow

Fall and fall, All will fall Whether short or tall.

Man and woman all will fall Woman double as recall

## Co factors (risk factors)

- Previous falls
- Female 2:1 in >75 years
- $\bigcirc$  Age > 80 years
- Objective of gait/balance/co-ordination
- Visual impairment
- Cognitive impairment/confusion
- OLow morale/depression
- OHigh level of dependency with ADLs
- Reduced mobility

### Co factors (risk factors) con...

- Foot problems/inappropriate footwear
- Arthritis
- •Lower limb weakness
- OStroke/Parkinson's
- Polypharmacy
- Alcohol
- ©Environmental factors
- Infection
- OUse of walking aids, e.g. Walking stick

### Neurological problems

- Stroke
- Parkinson's- abnormal posture, freezing, frontal impairment, poor leaning balance, leg weakness
- Neuropathy-diabetes
- Proximal myopathy e.g. thyrotoxicosis,
   Cushing's syndrome- esp rising from sitting
- Cognitive impairment

### **Drop attacks**

- Cardiovascular
- Carotid sinus disease
- TIAs
- Orthostatic hypotension



Old man fall
Search pitfall
Health and home not in all
Drugs also plays some role

### **Drugs**

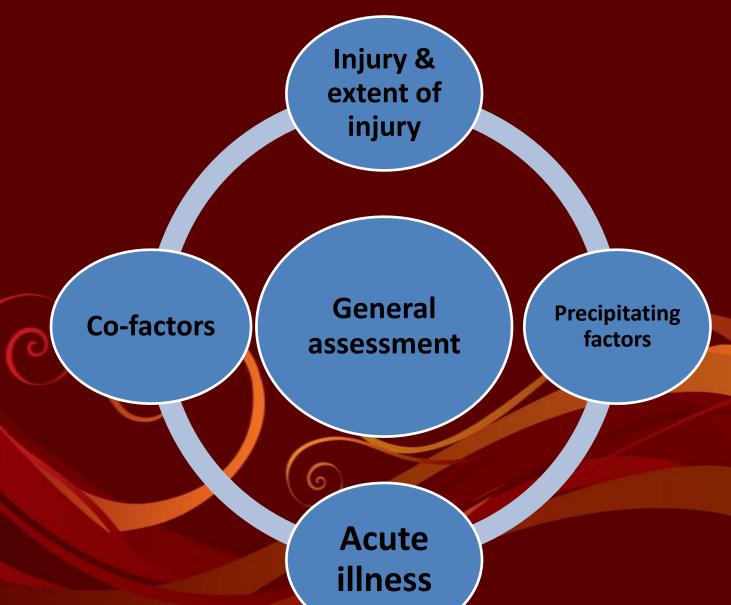
- Psychotropic drugs- phenothiazines, tricyclic antidepressants
- Levodopa
- Bromocriptine
- Sedatives
- Diuretics
- Betablockers
- ACE inhibitors
- Alpha blockers
- Diabetic medications- insulin, sulphonylureas



#### **Environmental**

- Loose rugs/electric leads
- Wet surfaces- spills, bathroom
- Poor lighting
- Ice
- High winds
- Use of ladders
- Too low/too high- chair/bed

### Evaluation of a 'fall' case



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### General assessment

### Physical examination

- GCS level: loss of consciousness due to
  - > Syncope
  - > Seizures
  - Dizziness
  - > Arrhythmia
    - ✓ Tachyarrhythmia
    - ✓ Bradycardia
    - **✓**AF

### Physical examination (con....)

- Sensory examination 'visual acuity, fields,
   cataracts, glaucoma, hearing loss
- Cardiovascular examinations 'arrhythmias, heart failure.
- Neurological examination 'mental status, mood and behavior.
- Musculoskeletal; examinations muscle weakness severe arthritis, limited range of motion
- Mobility evaluation .
- Balance
- Gait transfer (wheel chair patient )

### Injury & extent of injury

- 3% of all falls cause fractures.
- Approx. 95% of hip fractures in older people aged over 65 years are the result of a fall
- People who have a hip facture are 5 ~20% more likely to die in the first year following the injury than any other reason in the same age groups

### **Precipitating factors**

- Environmental
  - Medication



### Recent acute illness

- Acute febrile illness
- Acute metabolic disturbance
- Other morbidities.



### **Consequences of Falls**

- Mortality
- Morbidity
  - Fractures
  - Soft tissue injuries
  - Head trauma
  - Joint distortions and dislocations
  - Loss of confidence fear of falling
  - Restricted activity

### Consequences of Falls (con..)

- Physical consequences:
  - Skin tear and internal bleeding, subdural hematoma.
  - Falls result in physical injures, disability and death
  - Sever injures that require hospitalization.
  - Immobilization

### Psychological consequences

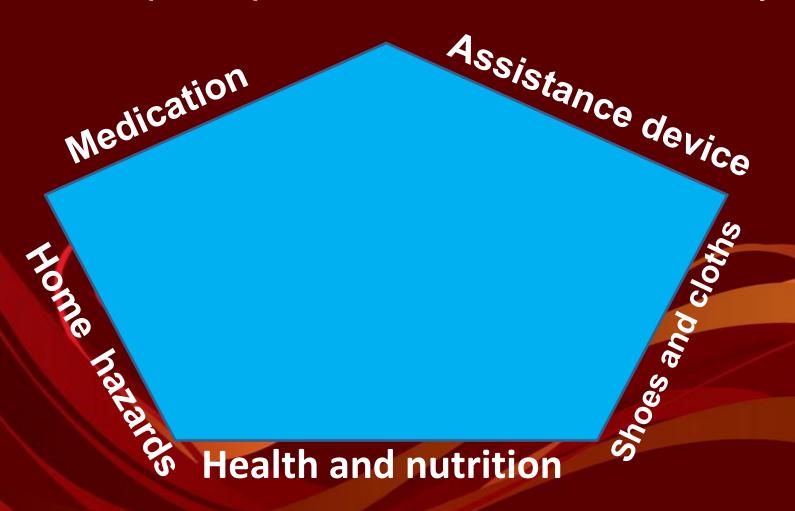
- ▶ Restricted activity
- Decreased exercise
- Increased dependency
- Depression, anxiety
- Social withdrawal
- Loss of confidence
- Falls phobia syndrome

### **Prevention:**



### **Prevention**

Five point prevention of falls in elderly



Safe home, safe living
Firm shoes, firm clothing
Sound health, sound dining
Rational drugs, device needing
---- prevent falls

## Home hazards (con..) safe home safe life

- Make home as safe as possible for movement and live
- Removing slip and trip hazards like loose rugs and mats
- Repairing and replacing
- Wiping up spills immediately
- Adequate lighting specially at dawn and night
- Use walking aid all the time

### safe home safe life (con..)

- •Grab rails in the bathroom
- •Keeping pathways in good repair and clean
- •Marking the edge and slopes so they are easy to see
- •Floor must be smooth, and uniformly flat
- •Floor should be dry and clean
- installing Emergency alarms and other safely aids.

### Bathroom grab rails

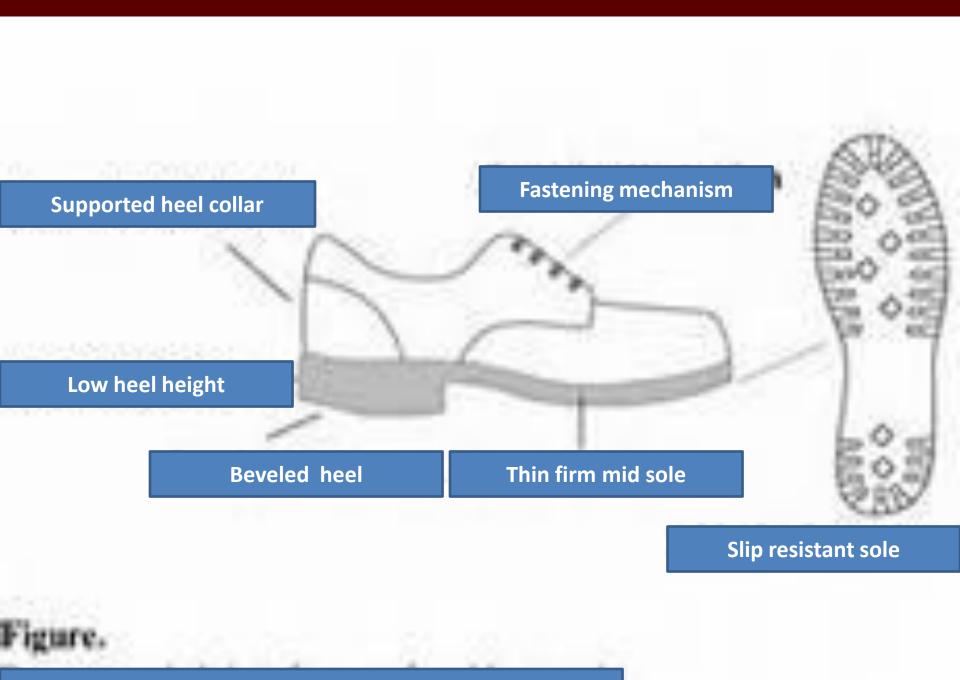


### shoes and clothing

### Firm shoes firm clothing

- right shoes
  - ☐ Comfortable
  - ☐ Flat shoes with low ride heel ,laces
  - ☐ Rubber shoes that grip well
- Clothing
- Clothing is not too loose causing trip hazards
- Wearing slippers at home which are good fitting
- Not walking in socks





Recommended shoe features for older people

### Sound health sound dining

Health and nutriion

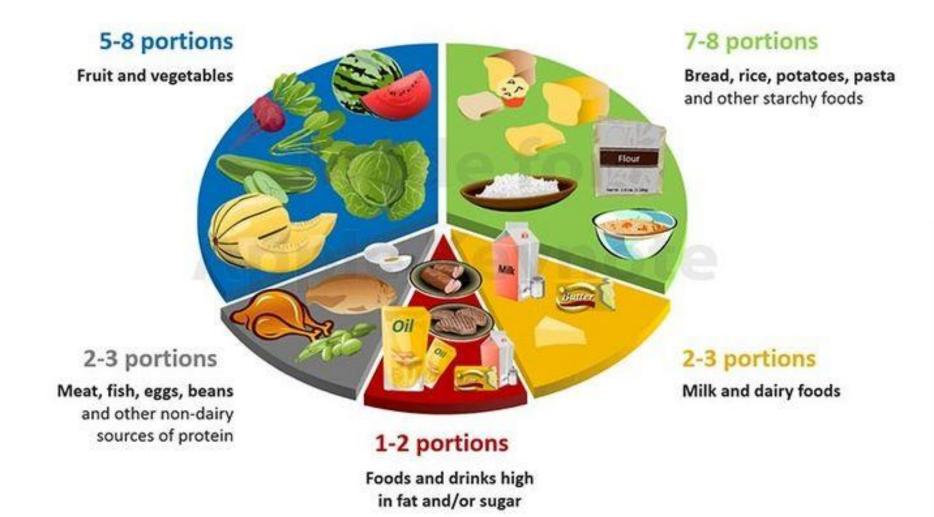
- immediate treatment of acute illness
- management of co morbidities
- increase body fitness (balance and strengthing exercise)
- > regular eye check up

### Sound health sound dining (con..)

### Nutrition:

- take adequate Calorie
- take the nutrious food
- Take the food rich in protein, minerals and micro elements
- Drinking enough fluid

#### **Balanced Diet Chart**



## Rational drugs device needing Medications:

- Rational drugs, avoid excess drugs
- Adjust the dose of drug in elderly
- Start from the lowest dose
- Take care of side effects
- Take only prescribe medications by an expert
- Dont take OTC drugs, dont take the quaky drugs.

### **Assistant Devices**

- Hip pads
- Mobility aids
  - -Cane
  - -Walkers
  - -Wheelchairs
- Bathroom aids
  - Raised toilet seats
  - Grab bars





An elevated toilet seat and grab bars make getting on and off less difficult.



A bath bench lets you sit down while bathing.

#### How to Get Up From the Floor by Yourself

- Calm down.
- Check your body.
- If you are injured, call for help. Stay warm.
- If you are not hurt, look for a sturdy piece of furniture, like a chair.



1) Roll onto your side.



Crawl over to a chair or sturdy furniture.



 From a kneeling position, put your arms up onto the seat of the chair.



 Bring one knee forward and put that foot on the floor.



 Push up with your arms and legs, pivot your bottom around.



Sit down. Rest before trying to move.

Let your health care provider know after you have had a fall.



### 1. Begin a Regular Exercise Program



### Exercise to prevent fall

• Exercise that build lower body strength reduce the risk of falls by 33 percent

- Balance exercises : tai chi, yoga
- Core exercises: to increase strength in deep stabilization muscles in trunk

Balance and mobility or fall proof glasses

### Exercise

- Stand on right foot behind a chair, holding on for
  - balance
- Hold for 10 seconds
- Repeat 3 times
- Repeat with left leg



### Have your medication revised?

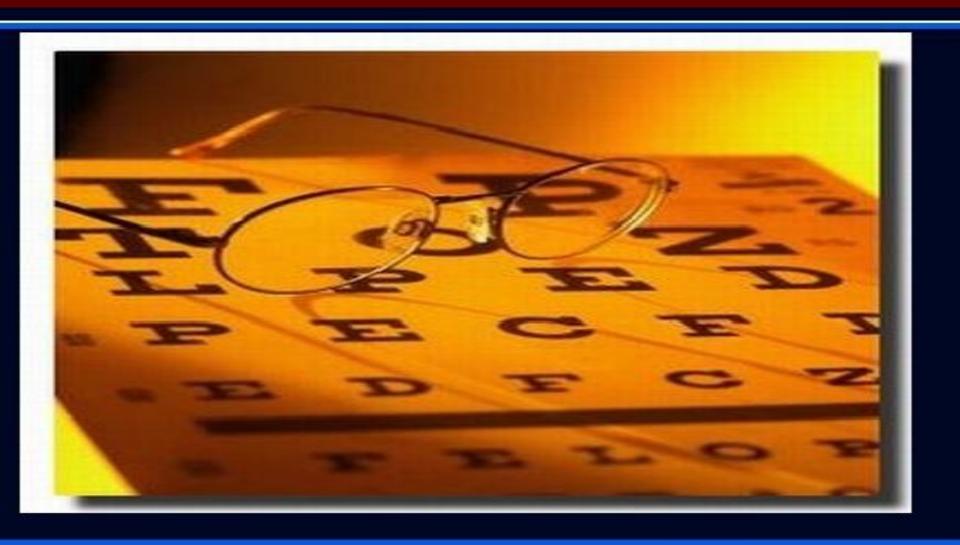


### Have your medication revised?

• Some medications, or combination of medications can make patient confused, tired or dizzy

• All medications should be reviewed by doctor including over the counter and homeopathic and other altenative medicines

### Have your vision checked?



### Have your vision checked? Con...

• Vision should be checked by opthalmologists at least once a year

• Macular degeneration, glaucoma and cataracts are serious contribution factors for fall.



# Safetymatters

### Young vs Old

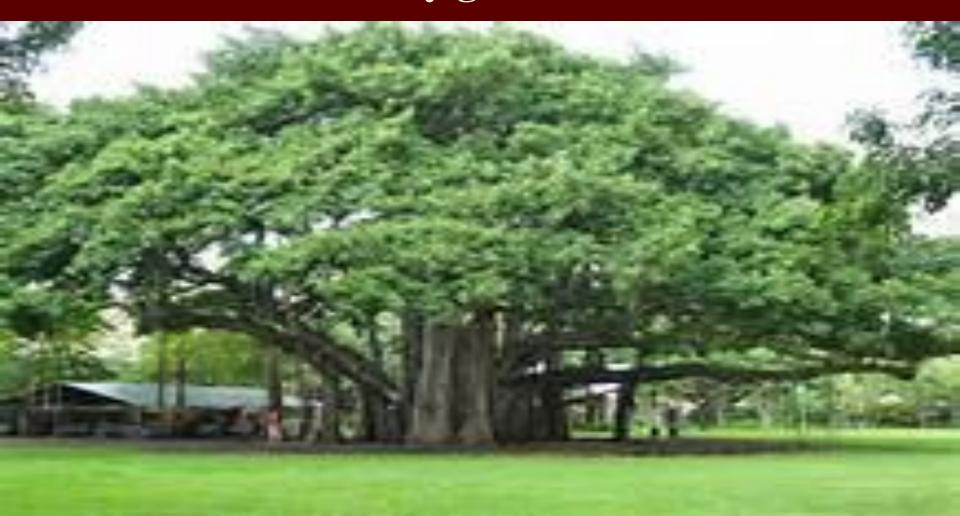
Young man says I am strong
Old one says, no you wrong
Knowledge is power that you lack,
I am old man, that's my back
You have motion, you have pace
Wisdom is my gold necklace.

You have emotion,
Don't know sequence
I am logical;
Have much experience
You can think of out of line
My thought results like sun shine.

With this strength of young and old Country will flourish with pride and bold.



# Old are asset not liability Old is the man, tree banyan for a family glorious sun



### For a family glorious sun



He is the think tank, he wisdom
Without an old man - all boredom
He is the centre, he pivot
In any crisis can't say not
He is all and also prime
Role his never fades with time

So we have to respect old man we have to nourish them so that they remain lively in mind and health Family crisis, he light house Carry the response, baby - spouse

