

Common Problems of the Elderly

Biological Aspects of Ageing

- --Changes affecting the cells
- --Changes affecting the tissues
- --Changes affecting organs
- --Changing affecting the whole body

Main Factors

- Genetic Aspects
- Cell Damage
- Decline in Function
- Collagen Changes
- Thermoregulatory Mechanism
- Immune System

Types of Ageing

- A. Usual Ageing: Expected physiological ageing.
- B. Successful Ageing: Minimal or no physiological losses such as the levels that are similar to younger age groups.
- C. Frailty: Reduced physiological and prone to get disabled.

Frail Elderly - Possible Characteristics

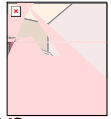
- Vulnerability
- Medical Complexity
- Illness which could be obscure, atypical presentation (altered pain response or painless presentation such as I.H.D. and Peptic ulcers)
- Cognitive problems
- Affective problems
- Can deteriorate through medicine
- Socially isolated
- Economically deprived
- High risk for premature or inappropriate institutionalization

Common Problems

- Instability
- Immobility
- Incontinence
- Intellectual Impairment
- Iatrogenic

Instability: Falls

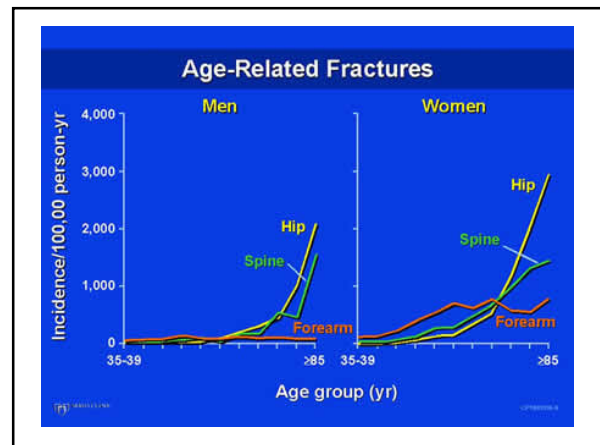
Definition:



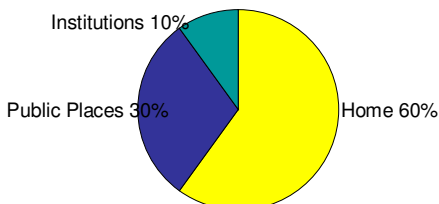
A fall is an event whereby an individual comes to rest on the ground with or without loss of consciousness.
(Oxford Textbook of Geriatric Medicine 2000).

Causes

May range from a heart attack to a wet floor. From medical reasons to accidents. It may also be more than one cause in an individual.



Age 65 Years Old or Older Likely to Fall.



Rate increases in falls in old age

- Community Dwellers: 28% - 35% (65yrs - 70yrs.)
32% - 42% (74yrs. Plus)
- Institutional Care: 50% of residents at least sustain one fall over one year period (Tinetti 1989)
- Hospital Admissions: 21% fall precipitated admission
26% recurrent falls per year.
(Exton - Smith - Wekslen 1985)

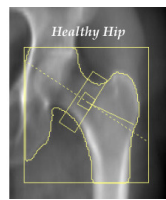
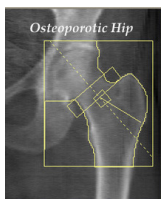
Falls may be under- reported.

Description of Falls

- Explained vs Unexplained
- Intrinsic vs Extrinsic
- Accidental vs Non – Accidental
- Injurious vs Non – Injurious
- Outdoors vs In-doors

Potential Complications

- Fracture (osteoporosis, slow protective reflexes)
- Fear and loss of confidence
- Other injuries
- Chronic institutionalization
- Stay in bed (plus functional decline)
- Hypothermia
- Subdural Haematoma
- Hospital Admission



- Bone density scans show the difference between a healthy hip and one with osteoporosis. Note the extreme thinning of the bone at the joint of the osteoporotic hip.

Intrinsic Factors

- Lower extremity weakness, poor grip and strength
- Balance disorders, functional and cognitive impairment, visual deficits

Extrinsic

- Polypharmacy: four or more prescription medications
- Environmental factors: poor lighting, loose carpets, lack of bathroom safety equipment, steps between rooms, no support appliances
- Footwear
- Elevated walkways and pavements

Why Elderly might have problems?

**Increased Frailty + Co-morbidity
+ Extrinsic Environment :
Increased tendency to falls.**

Trips and accidents (House hazards)

- Poor lighting
- Polished floor
- Rugs
- Carpet edges
- Steps between rooms
- No support appliances such as grab rails.

Hazards on their feet

- **Slippers**
- **Shoes too big**

Hard Headedness

- **Walking frame used to hang up clothes**
- **Walking stick kept in cupboard**



Cardio-vascular

- Syncope:
Age associated impairments in physiological responses to compensate for the reduction of cerebral blood flow.
- Postural Hypotension:
20mmHg. Drop in systolic blood pressure or 10mm Hg drop in diastolic on assuming an upright position from a supine position.

Medications

- | | |
|--------------------------------|------------------|
| • Sedatives | Balance problems |
| • Antidepressants | Balance problems |
| • Antihypertensive hypotension | Postural |
| • Anti Parkinson's hypotension | Postural |
| • Hypoglycaemia | Blood sugar low |

Assessment

- History : What led to a fall: Accidental / Medical
- Frequency
- Consciousness lost?
- Any witness
- List of medication
- Alcohol
- Co-Morbidity such as Parkinson's

Examination

Blood pressure (lying and standing)
Heart rate
Any visual problems
Neurological examination (motor nerve dysfunction)
Sensory problems (Parkinson features)
Musculoskeletal (muscle strengths, knee joints)
Balance and gait (getting up/walking, turning, sitting down)
Feet and shoes

Investigations and Management

Check electrolytes and full blood count.
ECG
Medication: might be reviewed
Postural retraining
Visual or vertigo: refer to relevant specialist.
Walking aides
Safe environment (own home, institutions)

Preventions

Exercise programmes
Muscle strengthening
Improving balance

Risk factor reductions

Safe environment: aids and appliances, bed side support, chair restraints. Identify 'high risk potential fallers'

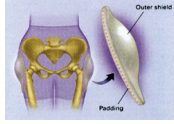
Treat Medical Conditions:

Neurological problems
Locomotor problems

Prevent Injuries:

Hip protectors
Prevent / Treat osteoporosis

Hip Protectors



- Energy shunting (hard shelled) are made of durable plastic, designed to divert a direct impact away from the greater trochanter onto the surrounding tissues (Lauritzen JB, Petersen MM, Lund B.1993).
- Soft, absorbing hip pads do offer some reduction in the peak forces involved to avoid fracture (Heikinheimo RJ, Jantti PL, Aho HJ, et al. 1996)

Prevent / Treat Osteoporosis

- [Calcium](#)
- [Vitamin D](#)
- [Exercise](#)
- [Hormone replacement therapy](#)
- [Medication](#)

THANK YOU

Mind D GAP!!!