“Healthy ageing”
Health and functional capacity in older adults

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Contents

• Biological ageing
• Health - diseases
• Functional capacity
• General guidelines
Biological ageing

Source: Ferrucci, InCHIANTI, EAMA
http://www.healthandage.com/html/min/eama/

Woman, 25 yrs

Loss of functioning cells
- >
Increasing body fat
- >

Dehydration
- >

Woman, 80 yrs

Slowing down & stiffening

Ageing of the Regulatory/ feedback mechanisms
Biological ageing - young

Source: Ferrucci, modified

- Loss of functioning cells
- Increasing body fat
- Dehydration
- Slowing down & stiffening

Ageing of the Regulatory/feedback mechanisms
Biological ageing - ageing

Source: Ferrucci, InCHIANTI, modified

- Loss of functioning cells
- Increasing body fat
- Dehydration
- Slowing down & stiffening

Ageing of the Regulatory/feedback mechanisms
Biological ageing - old

Loss of functioning cells
->
Increasing body fat
->
Dehydration
->
Slowing down & stiffening

Ageing of the Regulatory/ feedback mechanisms
• This is a person
• How much capacity does she possess?
- This is a person?
- How much capacity does she possess?

Jeanne Calment, the oldest woman in the world
Clients within the elderly care services; Functional capacity - cognition
(Source: Institute for health and welfare, RAI-database 1.10.2006-31.3.2007)
Clients within the elderly care services; Functional capacity – cognition & ADL
(Source: Institute for health and welfare, RAI-database 1.10.2006-31.3.2007)

ADL_long (RAI), scale 0-28, where 0=independent and 28= totally dependent
Clients within the elderly care services; Functional capacity – cognition & depression
(Source: Institute for health and welfare, RAI-database 1.10.2006-31.3.2007)
Clients within the elderly care services; 
Functional capacity – cognition & behavior
(Source: Institute for health and welfare, RAI-database 1.10.2006-31.3.2007)
Clients within the elderly care services;
Functional capacity – cognition & social life
(Source: Institute for health and welfare, RAI-database 1.10.2006-31.3.2007)
**Epidemiology of Ageing**

*WHO Report 1984 (84576)*

Figure 2

\[ e_0^{**} \text{ and } e_{60}^{**} \text{ are the number of years of autonomous life expected at birth and at age 60, respectively.} \quad M_{50}^{**} \text{ is the age to which 50% of females could expect to survive without loss of autonomy.} \]

Source: M. Schroll, Euroforum 2003
Decline over a lifetime, threshold for need of care, role of diseases

**WHO**

Muscle strength
Fitness
Functional capacity

Physically active healthy

Normal ageing healthy

Disease and/or accident

Threshold for independence

Age

Figure 17

Adapted from Dempsey, JA & Seals, DR. 1995

Source: M. Schroll, Euroforum 2003
Maintaining functional capacity in old age – 1, main areas

1. **Nutrition**
   - Do not lose weight (BMI 25-30 is best)
   - Eat balanced (enough calories, vitamin D, calcium, proteins)
   - Prepare for stresses

2. **Motion, exercise, sport**
   - No matter the disease - MOVE
   - Find your own way
   - It is never too late

3. **Mental and intellectual activities**
   - Mind your intelligence – train it
   - Avoid cardiovascular risk factors (blood pressure, cholesterol etc)

4. **Social life**
   - Active social life maintains intelligence
   - Makes your life worth living
Maintaining functional capacity in old age – 2, other areas

- **Vision hearing**
  - Treat everything treatable
  - Rehabilitate, help tools

- **Falls**
  - Identify risks
  - Training and rehabilitation

- **Depression**
  - Prepare and support for stressful life situations
  - Identify
  - Treat

- **Pain**
  - Identify and treat chronic pain
  - Pain prevents motion

- **Iatrogenesis**
Health & ageing

• Do we plan for them
Health & ageing

• …or for them?
Shortage of staffing

Call for the nurse

The nurse available Monday and Thursday